Executive Summary
Indiana Mass Transit Studies
PL 203-2007

Indiana Department of Transportation
December 2008

Executive Summary

In 2007, the Indiana State Legislature passed legislation which created the Joint Study Committee on Mass Transit and Transportation Alternatives and required the Committee to report and make recommendations on the role of mass transit in Indiana. On May 10, 2007, the legislation was signed by Governor Daniels establishing Public Law (PL) 203-2007.

In order to complete the studies, INDOT commissioned URS Corporation in association with HNTB Corporation and Engaging Solutions. The statewide regional studies are required by PL 203 to be completed and submitted to the Joint Study Committee on Mass Transit and Transportation Alternatives by January 1, 2009.

The study found that:

- Based upon the methodologies used to determine potential demand, urban bus and rural transit systems in Indiana are undersized and not meeting potential demand nor in the case of urban areas designed to attract choice riders.
- Major transit investments (fixed guideway) may be warranted in certain corridors in urban areas of the State that have high density of population and/or employment and defined travel patterns that can be served by transit.
- The current mix of transportation funding does not generate sufficient revenue to accommodate the transit investments to meet unmet demand.
- The public opinion poll conducted as part of this study indicated that Hoosiers think that the government should increase funding for mass transit but do not support new taxes to do so.
- Hoosiers believe that the top priority of transportation agencies should be to maintain existing streets and highways.

The study was structured to meet the requirements of the legislation through five primary activities.

1. **Region by Region Transit Assessment** – In addition to a review of existing transit service in each region, this study utilized industry-standard methodologies to predict demand for transit service. The demand estimate was based on socio-economic data and represents the unconstrained number of trips that would be taken if transit were more widely available.
2. **Research on the Benefits of Transit Based on Peer Systems** – During the course of this project it was determined that the best way to illustrate the benefits of transit was to examine peer systems that have invested in transit. Six community typologies were established to represent the different areas of Indiana including major metro areas like Indianapolis; suburban metro areas like Northwest and Southeast Indiana; medium cites like Fort Wayne and Evansville; college towns like Bloomington and West Lafayette; small cities like Kokomo and Richmond; and rural areas. There were up to five peer systems for each typology and they were chosen based on number of

factors related to population characteristics, but also the availability of data analysis of their respective transit investments. Reports and studies from other areas outside the peer systems were also used to support the findings of this study. Appendix A includes a full report on peer systems.

3. **Assessment of Service Levels –**In order to begin to meet potential demand for transit significant increases in the current level of transit service will be required. Rather than striving to fulfill all unmet needs, this study focused on potential investments which would move the State closer to achieving long-range transit mode share targets of 0.8% of rural trips, and 1.5% of urban trips. These targets were chosen based on experience in the other city systems analyzed for this report and represent a substantial increase in investment. It is at these levels of service; however, that transit service begins to provide the benefits outlined in the responses to the 14 points of PL 203. In addition, urban mode shares of 1.5% overall correlate to double-digit peak period mode shares in localized areas and corridors where transit is most effective and yields the most benefit. The current urban area mode share for Indiana is 0.46% of all trips (a rural mode share was not available). Local and regional transit expansion plans and programs served as a foundation for the service improvements included in this study.
4. **Order of Magnitude of Cost for Service Improvements –** Cost estimates for the prescribed implementation of transit services was estimated based on the productivity and costs of the current systems in place in Indiana.
5. **Review of Funding Sources –** The study includes a screening of potential mass transit funding sources enabled in Indiana that are commonly used for transit in other parts of the country.

1. Assessment of Transit in Indiana

According to the 2007 INDOT Annual Transit Report, there are 61 public transit systems in the State of Indiana that provided a total 35.8 million trips in 2007. Total operating costs of $175.2 million were funded through federal (17% - $29.3M), state (22% - $39.1M), local (34% - $59.3M), farebox (23% - $41.1M) and other (4% - $6.4M) revenue sources. An additional $8 million in state funding generated from the Commuter Rail Service Fund and the Electric Rail Service Fund was allocated to NICTD for capital expenditures. There are 15 counties that do not currently have any public transportation.

An assessment of transit demand was undertaken for the six regions of the state using industry-standard estimation methodologies. Based on these methodologies, none of the regions are currently serving the estimated level of demand. The table on the following page shows estimated demand, actual transit trips provided by the current systems and the percentage level of projected unmet demand for each of the six regions in the State.

State of Indiana Potential Transit Demand & Usage

Region	Urban/ Rural	Potential Demand (annual trips)	Actual Transit Trips (2006)	Unmet Demand (%)
Northwest	Urban	36.2M	5.7M	84.3%
	Rural	1.08M	440K	59.3%
Northeast	Urban	10.9M	2.1M	80.6%
	Rural	970K	110K	88.7%
West Central	Urban	9.7M	4.7M	51.8%
	Rural	940K	60K	93.6%
Central	Urban	51.7M	14.9M	71.3%
	Rural	*All counties grouped into the urban category*		
Southwest	Urban	7.7M	1.7M	88.0%
	Rural	1.3M	300K	76.1%
Southeast	Urban	9.0M	1.1M	78.3%
	Rural	1.4M	340K	77.1%
TOTAL	**Urban**	**125.2M**	**30.1M**	**76.0%**
	Rural	**5.7M**	**1.3M**	**78.1%**

NOTE: Urban demand based on mobility gap method; Rural demand based on APTNA method. See Appendix B for more information on these methods.

Interviews with elected officials and representatives of economic development and planning agencies, as well as the results of the statewide public opinion poll, provided further evidence of the desire for improved transit in Indiana.

Most stakeholders felt that the vast majority of the general public had never tried transit and therefore held the opinion that transit was more a public service for low income riders than a commute option. Transit is either not available or residents do not know that it is available and therefore do not consider it an option. However, there is a growing segment of the population that is searching for alternatives in light of the cost of driving and congestion on the roadways. They also felt that although the public would support increased transit service, they will not support increased taxes to financially support it. The opinions of stakeholders in NW and Central Indiana were decidedly different on this topic, and they felt that there was growing momentum for increased transit in their respective regions.

The public opinion poll also showed significant regional differences in priorities, attitudes and reported use of public transit that should be factored into the planning process. A significant majority (over 80%) of the adult population in Indiana has no experience using public transportation and therefore did not base their opinions of transit on first-hand experience. Major drawbacks to using public transit center on the perceived loss of spontaneity and freedom compared with using one's own vehicle. There is a general belief among the public that transit should be a public service for those who can benefit most from it: the elderly, disabled and low income. Overall, over 60% of Hoosiers felt that the government should increase funding for mass transit in Indiana; however, only 24% of those surveyed felt that the increase in funding should come in the form of a tax.

2. Benefits of Transit Expansion

The impacts of transit go beyond transportation-related measures of mobility and accessibility, and in recent years there has been increasing recognition of transit's social, economic, environmental quality, and land use and development impacts.

- **Social/Demographic:** For all modes of transit, public transportation has significant positive impacts on personal mobility and workforce transportation, in particular for seniors, disabled persons, and low-income households (where the cost of transportation can be a major burden on household finances).
- **Economic:** Notwithstanding the financial contribution via taxes, mass transit provides a cost savings to individual users in both urban and rural areas. This was also the benefit most associated with transit in the statewide poll. For urban areas, fixed-guideway mass transit can support a high number of workforce trips and thus major centers of employment in urban areas, and major professional corporations currently see proximity to mass transit as an important consideration when choosing office locations.
- **Environmental Quality:** Under current conditions, an incremental trip on mass transit has less environmental impact and energy usage than one in an automobile; and greater usage of all forms of mass transit will positively impact factors such as air pollution in the State. As the average fuel economy for all registered vehicles increases due to natural retirement of older inefficient vehicles and more strict CAFE standards for new vehicles, the overall impact to the environment decreases. Nevertheless, mass transit is expected to continue to be a more environmentally friendly form of travel.

  In terms of the mitigation of traffic, that transit is most effective in urbanized areas and during peak periods of traffic in corridors that serve travel patterns that can be conveniently accommodated by transit. Through a case study of a light rail line in Charlotte, NC, the report illustrates that even though the transit facility is removing a significant number of cars off the roadways through the attraction of choice riders, there is not a substantial enough impact on the level of traffic to reduce congestion. In fact, the corridor showed slight growth in traffic due to the overall growth in the region and the balancing of traffic on the network of roadways that occurs when capacity is made available. The light rail line does increase the overall person throughput of the corridor by 14% and depending on future conditions could allow the City to delay future widening of the local arterials by increasing service on the transit facility. It is very unlikely, however, that the transit facility would have any impact on the need for or the scheduling of improvements on a regional facility like an interstate.
- **Land Use:** Fixed-guideway transit, in conjunction with supportive land use policies, enhances the value of property and allows for higher-density development in urban areas, with major new development growth experienced urban areas which have invested in such systems. Evidence from other cities reveals that such forms of transit-oriented development have also become a preferred residential choice for young professionals associated with growing sectors of the economy.

The public opinion poll demonstrated that the public most associated transit with these benefits and for these purposes. Many respondents felt the main benefit of public transportation was that it is a good cost saving measure (39%) to the user or that it was good

for the environment (23%). There were some regional differences in perceived benefits as well as differences based on income, with higher income respondents more interested in the pollution control issues than lower income adults.

A review of cities from around the nation identified how metropolitan regions have seen benefits from recent transit investment. These studies empirically showed how benefits of transit accrued in urban areas near fixed-guideway transit investments, such as those seen in Denver, Charlotte, and Dallas. More information is provided in Section 3 of the Summary Report and Appendix A.

The review of the benefits of transit and the research on other cities each focus in on transit's potential as well as its limitations. In most cases, transportation is one of many factors influencing economic growth, demographic changes or land development. Transit investments should be viewed as one part of this complex set of influences, and should be deliberated in conjunction with other transportation modes (i.e., roadways) when addressing economic, demographic, or other issues in an area.

Research also indicates that the benefits of a transit investment are intimately linked with the efficiency and usefulness of the service as a convenient, well-utilized transportation asset. For example, improvements in air pollution or roadway congestion are directly linked to capturing transit ridership that may otherwise use an automobile for a trip. Any discussion of the potential benefits of transit necessarily assumes that the service meets a demonstrated transportation need.

3. Transit Service Expansion

Based on the level of demand and a review of the existing services, there are four strategies that frame expansion of transit within the State: The specifics of these investments must be addressed for each metropolitan region, where the benefits of transit are applicable. The regional transit authorities and the Metropolitan Planning Organizations (MPO) have processes in place to address transit needs and much of the investments outlined in the report are based on the MPOs long range transportation plans (LRTP) from each of the regions. These plans are fiscally constrained so the cost estimate derived through the development of the Mass Transit Studies suggest a much higher investment long term in transit than can be included in the LRTPs.

- **Northwest Indiana:** This region, in particular the areas within the Chicago metropolitan area, includes some of the highest-density, most congested and fastest growing parts of the State[i], yet has the lowest proportion of regular transit users. This demonstrates the need for a better coordinated system that is designed to meet the needs of travel within the region, in addition to improved connections to the rest of Chicago region.
- **Targeted rail investments:** NW Indiana and Central Indiana are the only regions in the State with the characteristics and conditions in place to suggest an investment in fixed guideway transit, with Fort Wayne being a possible exception. Indianapolis is the growth hub of the State, and continued expansion of the region can be supported by rail transit and commuter rail investments that connect to major commute origins as well as suburban cities such as Muncie and Bloomington. In addition, mass transit investments in

the downtown environments of Indianapolis and Fort Wayne could bring economic development benefits to the largest central business districts in the State.

- **Undersized fixed-route systems:** Local bus systems are undersized in Indiana's cities, and thus currently serve a primarily transit-dependent population. Service expansion should focus on building fleet sizes and adding more frequent service in the existing service areas, with limited expansion to new destinations that are focused on access to employment (i.e. Express Bus). Low-frequency service is currently a barrier to higher utilization of the system, especially by choice riders.
- **Rural transportation services:** Rural mass transit systems do not exist in 15 Indiana counties, and are limited to human service agency trip type and trip area in other parts of the State. Rural transportation is a crucial need across all regions of the State, and is especially important for trips serving transportation disadvantaged populations.

4. Cost Estimate

It is estimated that by focusing transit investment on these expansion strategies, the State could meet the utilization targets (0.8% rural, 1.5% urban) with an investment of $16.5 Billion over 30 years which is outlined in the table below. The study did not include any escalation of costs because there are too many variables associated with the scheduling, financing and implementation of transit improvements that are typically defined at the regional and local level. For the purposes of this estimate, assumptions about the timing of investments were made primarily to compute the total funds required for operating costs over the 30 year period. For example, a commuter rail line implemented in 2015 would require aggregating the operating costs expense for 25 years, while one implemented in 2025 would only require 15 years of operating expense to be included in the overall cost estimate. Assumptions about the implementation are included in Section 3 of the report.

Cost Estimate for Statewide Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost**	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$18.5	$55.5	$48.7	$974	$1,973.0
Vanpool	n/a	$6.3	0	0	$113.0
Urban Bus	$120.9	$309.1	$159.8	$3,196	$8,760.0
Fixed Guideway	$35.8	$95.1	$166.9	$3,944	$5,656.0
Total	$175.2*	$466.0	$385.4	$8,114	$16,500.0

In millions 2008 $ - no escalation.
*from 2007 INDOT Transit Annual Report
** Annualized cost does not include debt service on Capital expenditures

In effect, the cost estimate is an order of magnitude representation of the capital expenditure (over $8.1B) required for the transit systems in Indiana to achieve the benefits of transit realized by the other systems. This system would require more than $460M per year for

operating and maintenance cost. If the urban and rural ridership targets are achieved, the operating cost/trip would be about $4.21/trip as compared to $4.85 today. The decrease in operating cost per trip is attributable to providing more of those trips on rail systems, which will not be attainable without the substantial capital outlay associated with the implementation of the rail facilities. The study assumes that these investments will be targeted such that they will be at least as productive as existing transit service and farebox recovery would remain at or about 23% of operating costs or about $105.8M.

On the capital side, federal participation is expected to be no more than 25-40% based on historical data, which means that $4.9 to $6.1B must come from state and local sources. Given the changing political landscape and upcoming reauthorization of the federal transportation funding program, it is very difficult to predict the level of future federal participation in transit projects. Another issue to consider is that the annualized capital cost does not assume any expenses due to debt service. The cost to finance over $350M per year will be significant; however, it could not be projected since the funding levels from federal and other sources will vary from region to region and project to project.

Based on reaching the 0.8% rural and 1.5% urban mode share targets, investments include:

- **Central Indiana -** In addition to the NE corridor, one other similar rapid transit corridor (not defined), two commuter rail lines (Muncie/Anderson and Bloomington), targeted service to downtown Indianapolis, and a 100-150% increase in the fixed route systems that serve the region.
- **Northwest Indiana -** in addition to the two commuter rail lines currently planned, a bus rapid transit facility (not defined), and a 100-150% increase in the fixed route systems and rural transportation programs that service the region.
- **Northeast Indiana -** assumes expansion of two fixed route systems, the addition of targeted fixed-guideway service in downtown Fort Wayne, and substantial increases in rural transportation.
- **West Central, Southeast and Southwest Indiana -** assumes a 100-150% increase in level of service for each of the bus systems, and a 100-200% increase in of rural services.
- **Statewide** - The addition of vanpooling programs are assumed throughout the State to support workforce transportation.

5. Financial Considerations

Transit systems in Indiana utilize funding from a myriad of sources, including the fares that their services generate. The mix of sources varies greatly from system to system based on the type of service they provide, the size of the region they serve and their level of farebox recovery. None of the transit systems in Indiana operate without substantial subsidization from local, state or federal funding. Currently, the funding programs for transit statewide are fully leveraging federal formula funds and the state has good track record of utilizing federal discretionary transportation funds over the years. There have also been examples of projects being funded by flexed highway funds, including the Congestion Mitigation/Air Quality (CMAQ), which has funded suburban express bus service currently provided by IndyGo.

There are three primary funding issues that have a significant effect on transit in Indiana that were identified by the study:

1. A Brookings Institute report (*The Road Less Traveled*, December 2008) indicates that a national trend of less driving threatens to decrease the federal motor fuel tax receipts at the national level, which means fewer federal dollars being available for both highway and transit programs. As a result, competition for capital funds from the Federal Transit Administration among transit systems nationally will continue to increase. Federal participation in operating expenses for transit systems will most likely decrease as well. In fact, the report tabs Indianapolis with the 2nd largest decrease in vehicle mile traveled nationally.
2. Recent property tax relief strategies in Indiana have the potential to significantly impact revenue sources on which the public transit corporations (PTCs) are heavily dependent. Thirty-five to 43 percent of their operating budgets are dependent on local property taxes. Other city-owned and operated systems that do not have dedicated source of funding will also be severely affected by these changes.
3. It has been an initiative of the State to pursue, where possible, public/private partnerships when financing public works projects. Because transit systems do not generate enough revenue to pay for their operating costs, it is very difficult to secure private investment in transit projects. More information is provided in the response to PL 203 Point # 4 in Section 1 of the report.

These issues point to a growing trend where the increasing burden for transit costs will be borne by fare increases, local, regional and/or state sources. It will be very difficult politically to increase State funding for transit, because the benefits of most transit investments are localized. This places the emphasis on regional entities, either MPOs or regional transit/bus authorities, to take the lead in developing funding programs to support transit within their specific regions. These agencies are uniquely situated to continue the development of transit within their respective regions and their existing long range plans were major sources of information on which this study was based.

In addition, there are only a few statewide transit programs nationally, and they generally appear in the geographically smaller and denser northeastern states or in California, where the statewide programs are focused on transportation between the major metropolitan areas. Section 5.2 has more information on state transit funding programs in the US.

Nevertheless, the State of Indiana currently supports transit primarily through a set of programs that are funded through State sales tax proceeds (Public Mass Transportation Fund, Commuter Rail Investment Fund, etc.). These funds are used to match local and federal funding of transit systems in Indiana's cities and metropolitan regions, and overall the State provides 22% of the cost of operating transit service in the State on an annual basis. An increase in state participation may serve as a catalyst for more local participation, especially if the State continues or intensifies its matching requirements from the local/regional level. If the State wishes to maintain its percentage of funding for the expanded program outlined in the report, the PMTF or state funding in general, would have to increase threefold. This assumes that federal and local participation as well as farebox recovery were also maintained. This additional funding could be used to target three areas:

- Expanded rural transit program – Capital and operating funding to support local programs and provide statewide coverage.
- Expanded urban transit program – Operating fund support for expanding the levels of bus service in urban areas throughout the State. Design of service expansion should target choice riders.
- Capital infrastructure fund – State matching funds for major rail and bus infrastructure. Even though this level of funding would represent a very modest capital program, it could be useful to region's implementing transit through the New Starts program by strengthening their requisite financial plan.

If Indiana chooses to reach the service levels outlined in this study, an increase in funding must also come from the local or regional level. Transit is most successful in areas with dedicated funding, where the benefits and more importantly, the usage are focused.

The report includes a cursory screening of funding in Section 5 of the report that is intended to augment the research already completed by the State Legislature (see www.in.gov/legislative.index.html) on potential funding mechanisms. The screening is intended to identify those funding sources that are enabled in Indiana and have been implemented in other parts of the country successfully to fund transit investments. The following table illustrates some of the more viable mechanisms available for funding transit.

Potential Funding Program Sources

Source	Currently In Use in Indiana?	Currently Used for Transit in Indiana?
FTA Section 5309 - Capital Discretionary Program (New Starts)	Yes	Yes
State Sales Tax	Yes	Yes
Local/Regional Sales Tax	No	No
Local Option Highway User Tax (Wheel Tax + Excise Surtax)	Yes	No
Local Property Tax Increment	Yes	No
Gaming Taxes	Yes	No
Local Income Tax	Yes	Yes
Vehicle emissions tax	No	No
Vehicle Mileage Tax	No	No
Congestion Mitigation/Air Quality Program (CMAQ)	Yes	Yes
Local Sales Tax Increment	Yes	No
Local Vehicle Registration Fee/Tax	Yes	No
Public Private Partnerships (P3)	Yes	No
Local Income Tax Increment	Yes	No
Auto Rental Excise Tax	Yes	Yes
Congestion Pricing	No	No
FTA Section 5317 – New Freedom	Yes	Yes
Local Parking Impact Fee	No	No
Right-of-way leasing (typically, for utilities)	No	No
Petroleum Severance	Yes	Yes
In-vehicle advertising	No	No

[i] www.stats.indiana.edu shows that Burns Harbor, Winfield, St. John and De Motte are all in the top twenty fast growing Indiana cities.

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Indiana Mass Transit Studies
PL 203-2007

Indiana Department of Transportation
December 2008

INDIANA MASS TRANSIT STUDIES

Public Law 203 – 2007
Indiana State Legislature
Joint Committee on Mass Transit and Alternative Transportation

Conducted for the Indiana Department of Transportation

By URS Corporation

In conjunction with

HNTB Corporation
Engaging Solutions

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1.0 Introduction

In 2007, the Indiana State Legislature passed legislation which created the Joint Study Committee on Mass Transit and Transportation Alternatives and required the Committee to report and make recommendations on the role of mass transit in Indiana. On May 10, 2007, the legislation was signed by Governor Daniels establishing Public Law (PL) 203-2007. As a result, the Committee directed the Indiana Department of Transportation (INDOT) to conduct six regional mass transit studies that address fourteen points about the impacts, benefits, costs and funding of transit. These points range from the need to use mass transit to mitigate traffic congestion, to addressing the demand for workforce transportation, to eliminating barriers to investment in mass transit facilities.

In order to complete the studies, INDOT commissioned URS Corporation, in association with HNTB Corporation and Engaging Solutions. The statewide regional studies are required by PL 203 to be completed and submitted to the Joint Study Committee on Mass Transit and Transportation Alternatives by January 1, 2009.

The study objectives were to define the benefits of transit, estimate transit needs statewide and to define investments with enough detail to calculate an order of magnitude cost. The analysis was structured to meet the requirements of legislation through four primary activities.

1. **Region by Region Transit Assessment –** In addition to a review of existing transit service in each region, this study utilizes industry-standard methodologies to predict demand for transit service. The demand estimate is based on socio-economic data and represents the unconstrained number of trips that would be taken if transit is available.
2. **Research on the Benefits of Transit Based on Peer Systems –** During the course of this project it was determined that the best way to illustrate the benefits of transit was to examine peer systems that have invested in transit. Six typologies were established to represent the different areas of Indiana including major metro areas like Indianapolis; suburban metro areas like Northwest and Southeast Indiana; medium cites like Fort Wayne and Evansville; college towns like Bloomington and West Lafayette; small cities like Kokomo and Richmond; and rural areas. There were five or six peer systems for each typology and they were chosen based on number of factors related to the population characteristics, but also the availability of data analysis of their respective transit investments. Reports and studies from other areas outside the peer systems were also used to support the findings of this study. Appendix A includes a full report on peer systems.
3. **Assessment of Service Levels –**In order to begin to meet unmet demand for transit significant increases in the current level of transit service will be required. Rather than striving to fulfill all unmet needs, this study focuses on potential investments which would move it closer to achieving long-range transit mode share targets of 0.8% of rural trips, and 1.5% of urban trips. These targets were chosen based on the experience in the peer systems analyzed for this report and represent a substantial

increase in investment. It is at these levels of service; however, that transit service begins to provide the benefits outlined in the responses to the 14 points of PL 203. In addition, urban mode shares of 1.5% overall correlate to double-digit peak period mode shares in localized areas and corridors where transit is most effective and yields the most benefit. The current urban area mode share for Indiana is 0.46% of all trips. A rural mode share was not available. Local and regional transit expansion plans and programs served as a foundation for the service improvements included in this study.

4. **Order of Magnitude of Cost for Service Improvements –** Cost estimates for the prescribed implementation of transit services was estimated based on the productivity and costs of the current systems in place in Indiana.
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1.1 Scope of Study

An evaluation of statewide mass transit issues was addressed by focusing on the particular issues associated with six regions of the State, which were generally defined in the legislation as;

1. Central Indiana (includes Boone, Delaware, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Monroe, Morgan and Shelby counties).
2. Northwest Indiana
3. Northeast Indiana
4. South Central Indiana (including Monroe County)
5. Southwest Indiana
6. Southeast Indiana

At the outset of the study process the regions were defined further to correspond with the districts established by Indiana Economic Development Corporation with the exception of the Central region which has been modified to include counties affected by the Commuter Rail Feasibility Studies. The IEDC was a primary source of economic statistical information which was based on their districts. Since the legislation largely focuses on economic development impacts related to transit, it was important to match up the regions included in the study to the IEDC statistical information. In effect, the regions can still be defined as they are in the legislation with the exception of the South Central which has been labeled the West Central for the purposes of the analysis.

1.2 Responses to the 14 Points in PL 203

This section includes a response to the 14 points of the legislation based on the results of the Indiana Mass transit Studies. The findings are based on research conducted on peer systems around the US, like stakeholder interviews, a public opinion poll and the needs assessment conducted in each region.

PL 203 Point #1 - Using Transit to Mitigate Traffic Congestion

The optimum role of transit as a component of a regional transportation system is not always fully understood. Often transit systems and highways are seen as two ways of serving the same purpose and are thus perceived as being in "competition" with each other for investment by public agencies and for use by the public.

In fact, highways and transit systems should be viewed as complementary in terms of their application to serve transportation needs. The best service is provided when they are coordinated to draw from the strengths of each.

Public roadways serve all parts of large areas during all times of the day. With today's highway systems, motorists can access virtually any developed property with little difficulty at virtually any time. Given this broad geographic coverage and ease of movement, roadways will continue to serve the overwhelming majority of trips at most locations in Indiana. Nationally transit provides less than 0.5 percent of all the vehicle trips. Even in major metropolitan areas, the total market share for transit is on average less than 3 percent of total trips. Transit's mode share in Indiana urban areas is 0.46%.

Those who are critical of transit investment use these statistics to dispel the benefit of transit.

> *Yet, transit advocates tell proverbial "stories from over the mountains," about successes achieved in other urban areas. Invariably, the transit "successes" never show up in overall urban area data. In fact, transit market share does not exceed 5 percent in any U.S. urban area except New York. Only a few exceed 3 percent, with "over the mountain" favorites such as Portland, Seattle and Denver, not among them. It would take a miracle of massive proportions to push transit to a 0.5 percent share in Salt Lake City and Kansas City.*
>
> *Wendell Cox, Commentary January 9, 2007 Examiner.com*

The weakness of roadways is that operations break down when they are subjected to high volumes of traffic in a short period of time. This condition occurs daily during periods of peak demand in the state's most congested corridors.

Transit is limited in the places it serves and the time it serves them. Regardless of transit mode, travel options are limited to the location and schedule of the transit network and operating schedule. Transit cannot begin to match the flexibility of a mature roadway network in terms of geographical access. However, transit is much less sensitive to peak demands. Once a transit facility is implemented, system capacity within a particular corridor can be expanded substantially by adding vehicles or providing more frequent service.

Corridors in the metropolitan areas of Indiana, most of which have been identified by local and regional planning entities, could benefit from an investment in transit, although determining their impact on traffic congestion is not easily measured. The application of transit service can remove vehicular trips from parallel roadways but given the nature of travel and the tendency for patterns to adjust when transit is present, it is difficult to determine where and when the vehicles are removed.

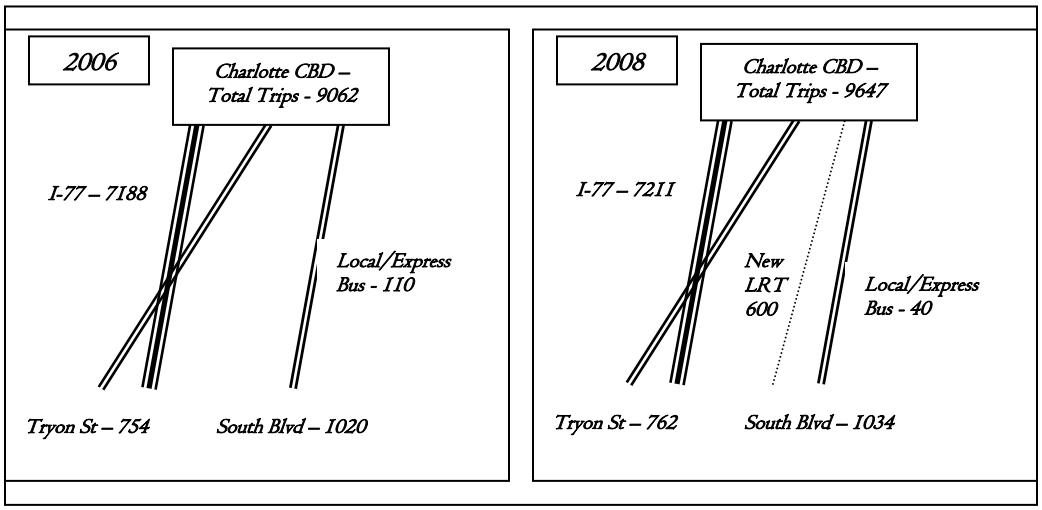
A case study from a recently opened light rail line in Charlotte, NC illustrates the impact of transit on traffic. It is a 10-mile line between Pineville and downtown Charlotte costing $480 million that parallels three primary roadways: Interstate 77, a six-lane freeway; South Boulevard and Tryon Road, which are both four lane urban arterials. Ridership counts on transit and new traffic volumes show that in spite of 18,000 transit riders (increase of 12,000 as a result of the LRT) in the corridor on a daily basis that the traffic volumes over that same period did not decrease.[1] In fact they grew slightly to 201,000 vehicles (0.5% increase). About half of the trips on the LRT are made by choice riders (those who would used an automobiles if the LRT did not exist), so how can we explain the increase roadway volumes?

One reason is that population and employment growth of the region and within the corridor keeps generating more trips. But it can also be attributed to the natural adjustment of travel patterns that occurs when capacity changes in a corridor. As mentioned, the impacts of transit on traffic are most pronounced during the peak times of the day and the figure below illustrates the change in volume during the peak hour of the peak travel period[2] for each of the facilities before and after the implementation of the LRT.

During the AM peak hour the roadways accommodate 9,062trips (average in one direction) and the transit system has about 1,280 riders (combined rail and remaining bus), which translates to a 12.5% mode share. Since half the riders on the LRT are choice riders, the transit system is removing about 640 cars from the parallel roadways, which is equivalent to the volume of one half of a lane per peak hour. Surveys on Charlotte transit show that 50% of the riders own automobiles.

Peak Hour (1 Hr) Travel Volumes for Charlotte LRT and Parallel Roadways - 2006-2008

(Transit Volumes of Choice Riders Only- 50% of total riders)



There is new capacity on the roadways that is created by the LRT that has been utilized by new trips that have entered the corridor and it is difficult to determine the source of the new trips. Some of these trips are generated by new development in the corridor, even the development that has occurred around the LRT. But most of the new trips are a result of the balancing of travel patterns that occurs on a road network when capacity opens up in a congested corridor. There are a number of trips on other parts of the road network that are now on one of the three parallel roadways and or the LRT itself.

It is also difficult to estimate the change in volumes on the roadways had the LRT not been built, but it is very likely that the volume of trips would have increased at a faster rate than they did with the presence of transit. Congested conditions theoretically would be worse or at least occur for a longer duration during the peak period.

It is also difficult to assess whether or not the City or NCDOT will be able to avoid or delay widening on the parallel roadways as a result of the capacity generated by the LRT. In the case of I-77, the answer is not likely. Despite the movement of peak hour trips from the interstate to transit, there a too many travel patterns that can be served by the interstate that cannot be conveniently served by transit. These are trips that go significantly beyond either of the endpoint of the LRT. This is a segment of the motorists on I-77 that will continue to increase and it will be very difficult for the transit system to attract. Transit is also ineffective for reducing truck traffic from roadways, which is also a substantial percentage of the volume on interstates. Conversely, the City of Charlotte now has the option to increase the frequency of service on the LRT to accommodate growth and effectively avoid or at least delay widening the arterials in the corridor.

In summary, rather than saying the "mitigation of traffic," a better way to think of the benefit of transit is that it can slow the growth of traffic congestion. **Transit is most effective in urbanized areas and during peak periods of traffic in corridors that serve travel patterns that can be conveniently accommodated by transit.** From a cost perspective, the initial investment in transit can be difficult to advance politically because the percentage of trips being served on transit is very small compared to a roadway. After the initial investment, however, increasing capacity on a transit facility can be very competitive when compared to the cost of widening a roadway.

PL 203 Point #2 - Workforce Transportation

Highly-utilized transit systems primarily serve work trips during the peak, high-congestion travel periods. Thus a key issue in planning for transit is providing access to work by linking job-rich areas of a metropolitan region to areas where there is a deficit of work.

Areas with a lack of jobs could include, for example, poor urban or rural areas which have suffered disinvestment, or suburban areas which are primarily "bedroom" communities. In highly congested areas, mass transit can provide a safer, more reliable trip than other modes of travel, but only if the frequency and level of transit service is

such that it provides flexibility for commuters. Fixed-guideway transit is safer and more reliable than bus transit operating in mixed traffic.

In many areas, particularly those experiencing congestion, the effectiveness of a new transit service at providing job access can improve employment rates of workers looking for jobs, as well as the base of potential employees for employers. A trend in many areas is for large private employers to work with a transit agency to sponsor service that targets the work schedules and residential locations of their employees.

Some research studies have attempted to document the relationship between access to transit and employment levels. A 1999 study of Atlanta showed that average annual employment levels decreased by approximately three weeks for every 0.5 kilometer from the nearest bus stop.[3] Similar research into bus and rail access in Portland offered less clear evidence, with a few days less work per year for those not within walking distance of a transit station.

Based on the statewide public opinion poll, Indiana residents see serving work trips as one of the top three priorities for transit behind service for seniors and the disabled. Urban and rural areas in the State of Indiana, however, are each underperforming when compared to their peers in terms of providing mass transit service targeted toward serving the needs of the workforce. Mode share or percentage of total trips taken on transit, of work trips for Indiana cities were consistently below that of the peer systems.

Potential transit improvements should focus on developing a more frequent and widespread bus service schedule in numerous Indiana cities and metropolitan areas. A strategic expansion program in the State could improve workforce access and development, based on experiences from other cities.

PL 203 Point #3 - Ways to eliminate barriers to investment in public transportation created by the current structure of transportation funding

There appear to be few institutional barriers to transportation funding in Indiana that would necessarily limit investment in public transportation. As Table 4-2 at the end of this report shows, most of the mechanisms that are typically used to finance public transportation projects elsewhere in the United States are currently in use in Indiana, though not necessarily to support transit. In some cases, this is due to a lack of authorization for application to transit under state law; in others, authority is implicitly available but has not been invoked for transit purposes.

In the absence of institutional barriers, the major challenge to the establishment of effective funding programs for public transportation is the fierce competition for resources. Transit is most successful in areas with dedicated funding, and given the fact that there are economic and political limitations to how much revenue can be generated at the local, regional, and state levels, governments must make choices among competing demands for limited resources. In transportation, this is most often represented in competition between roadways and transit. While it is conceivable that funding mechanisms and the resulting revenue that are currently used for roadway

projects could be redirected to transit, there are strong constituencies and legitimate concerns that would resist such redirection.

While different revenue generating mechanisms can be employed for different purposes, many of these mechanisms would tax or assess the same constituencies and socioeconomic groups, thus adding to their overall tax burden. While the question of whether the current overall level of taxation is appropriate will always be debated, there is no question that any significant increase in that level would meet formidable resistance.

A related institutional challenge to adequate transit funding at the local or regional level involves the need to coordinate funding and spending policies among several local entities – cities, counties, and special districts. These problems can be addressed in several ways, ranging from execution of memoranda of understanding among the participants to creation of standing special agencies such as a regional transit authority or district. While complex, multi-party arrangements such as these have been successfully concluded in regions across the country and in Indiana.

To complicate matters, the prospect for public transportation projects to improve their funding position could be affected by recent changes in travel behavior. According to a Brookings Institution report published in December 2008 (The Road…Less Traveled: An Analysis of Vehicle Miles Traveled Trends in the U.S.), major shifts in travel patterns have resulted in reductions in the number of vehicle miles traveled (VMT) in the United States. According to the Study, Americans have simply been driving less, while transit use is at its highest level since the 1950s. Much federal and State transportation funding is distributed based solely on VMT and VMT has a direct correlation to gas tax receipts, the primary source of surface transportation funding. According to the Brookings report, the reduction in VMT will adversely affect funding both for current and future projects, with the prospect of the funding situation worsening as the trend continues and the demand for transportation dollars continues to rise.

Given that VMT-based revenues in Indiana are now used exclusively for roadway projects, the competition for scarce resources will become more intense as the State seeks ways to fill the funding gap resulting from decreases in VMT-related revenues. Thus, it will likely become more difficult for transit projects to secure funding through federal and State sources, particularly in cases where such sources have not historically supported public transportation (i.e., the gas tax).

PL 203 Point #4 - Existing barriers to private investment in public transportation facilities, including tax inequities

The most significant barrier to private, at-risk investment in public transportation projects stems from the fact that transit systems typically require public subsidy for both capital investment as well as operations and maintenance. That is, user fare revenue is not sufficient to cover expenses. This is particularly true in the United States, where transit patronage isn't high enough to generate the level of farebox revenue that would attract private investors.

Private involvement in transit, therefore, typically takes the form of a multi-function service provider, or concession, where a for-profit entity assumes some risk in exchange for a guaranteed level of public subsidy. These arrangements can include design, construction, and operations (including maintenance). Whether a single entity is engaged to provide all services, or the work is divided between construction (design/build) and operations, these arrangements are frequently termed "public-private partnerships" ("PPP", "P3"). The "DBOM" model (design/build/operate/-maintain) is most often found in Europe and Asia, where the government "owner" engages a single consortium to provide vertically-integrated services on a performance/risk-reward basis. It is less common in the U.S., but is gaining in acceptance by state DOTs and local transit providers.

The principal challenges to using P3 models for transit project implementation lie in the areas of government and contract law, risk management, and labor concerns. All of these issues can be addressed and have been successfully addressed in projects such as the Hudson-Bergen light rail system in New Jersey. However, extensive time is needed to develop appropriate law, policies, and implementation procedures.

In Indiana, public-private partnerships have been used on roadway projects, but not public transportation projects. Under current law, revenues from public-private agreements are distributed at the direction of INDOT to the Major Moves Construction Fund, the state Highway Fund, or an operator or the Indiana Finance Agency (IFA) for debt reduction. With the passage of PL 203, however, the State Legislature explicitly enabled the use of P3 for rail transit projects. PL 203 also established the Alternative Transportation Construction Fund (ATCF) for funding passenger and freight railroad system projects under public-private agreements by INDOT, thus creating an alternative to the Major Moves Construction Fund, which cannot be used for funding projects or making payments in connection with a public-private agreement concerning a passenger or freight railroad system.

Thus, with the passage of PL 203, the State established the institutional capacity to enter into public-private partnerships for the development of rail transit projects, as well as a mechanism to manage the revenue generated from such partnerships.

Using a somewhat different definition of "public-private partnership," capital or even O&M funding assistance can sometimes be secured through the creation of "value capture" or "joint development" at transit stations, intermodal passenger centers, and other facilities. Such partnerships consist either of (1) leveraging enhanced private sector property value associated with proximity to transit stations into revenue- or cost-sharing arrangements between developers and transit operators, or (2) developing joint-use facilities where a share lease or sales income from private elements can be diverted to transit needs in exchange for an asset contribution by the transit operator – land, for example. To date, in fact, the benefits of such projects have been relatively modest when compared with overall funding needs. Nevertheless, they can be attractive in higher-density, downtown areas.

PL 203 Point #5 - Effective ways of leveraging federal programs to supplement state funding of transportation

"Leveraging" of local and state transit funds involves careful and exhaustive matching of potentially available funds from all authorized federal programs including, but not limited to: Transportation, Housing and Urban Development, Health and Human Services, and Commerce.

Federal grant programs typically operate either on a formula (fixed) basis or on a discretionary (competitive) basis. In both cases, a minimum level of non-federal (state or local) matching funds is required. Currently, all FTA funds coming to Indiana are matched and subsequently fully utilized. Further, some federal discretionary programs may give consideration to the proposed level of non-federal matching funds in decisions regarding how much federal funding to approve. (The FTA Section 5309 New Starts capital program is perhaps the most well-known example of this.)

In all cases, the full range of funding mechanisms currently in use at the state and local levels – as well as those potentially available – should be considered when seeking to tap federal funds. All state DOTs, including INDOT, have policies that mandate matching federal funds first before considering "state-only"- funded projects. This policy is generally observed by local and regional transit operators as well, though smaller agencies may have more difficulty with navigating federal grant processing requirements.

Conversely, application of state and local funding to transit investments would be more attractive if there were greater assurance that federal funds would be available at desired levels. However, because of the limited level of federal formula funding and the more ad-hoc nature of federal discretionary programming of funds, it is very difficult to obtain such assurances. Nevertheless, robust state and local commitments must be in place so that no federal dollars are passed over. Transportation agencies at all levels of government should maintain full knowledge of federal funding opportunities for transit and coordinate how these funds should be tapped and applied to the full range of transit needs in the state.

PL 203 Point #6 - Land Use Impacts of Public Transportation

Transportation infrastructure can improve the accessibility and thus the attractiveness of property in urban areas. For public transportation, the impacts are more localized than for roadways, and are generally limited to station area locations.

Numerous studies have documented property value increases (especially residential property value) related to transit access, which is one of the most well studied non-transportation related impact of public transportation. This is especially true for fixed-guideway transit modes such as light-rail transit, commuter rail, and streetcars, which have fixed stations. Fixed-guideway transit also has the ability to allow for the development of dense urban districts and corridors, a development type which could not otherwise be created. Such transit-oriented neighborhoods are increasingly attractive to key demographic groups (e.g., young professionals) that have become important drivers of new economic growth for U.S. cities and metropolitan areas.

Enhanced land use and increased economic development are anticipated from potential transit investments in the State, in particular for fixed-guideway transit improvements in some of the most densely populated metropolitan areas, such as Indianapolis and Northwest Indiana. The experiences in numerous cities provide evidence of this impact, including the impact of the free Wabash Trolley on property values and economic development in downtown Lafayette, as summarized in a 2006 study. In addition, a 1998 study of 98 CTA and Metra station areas around Chicago confirmed the positive impact of public transportation on property values. While residential properties within 300 feet of a rail line may experience some negative noise impacts which offset property value increases, the general rule applies that there is a decline in value as one moves away from the station. Study results show a range of percentage premium from more than 25% within 500 feet of a station to less than 5% for properties more than 4,000 feet away. [4]

Streetcar and light-rail investments in Portland have increased property values and development activity in urban districts throughout the City.
Source: Portland Streetcar, Inc.

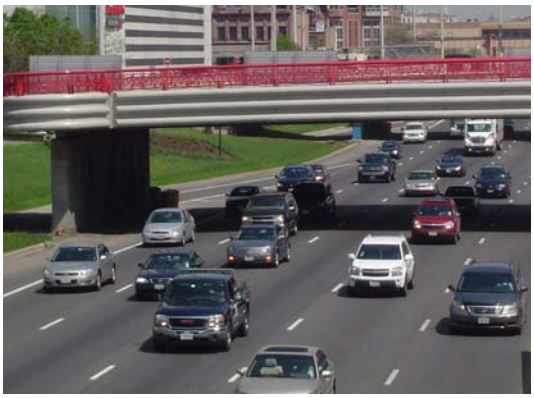
PL 203 Point #7 - Environmental Improvement & Quality of Life

The environmental benefits of transit arrise from the reduced impact to the surrounding environment from a trip made on transit compared to the same trip by automobile. For each trip taken on transit, there are lower emissions of air, water and noise pollution.

Air pollution

Air pollution is one of the most costly impacts of auto use, as it is linked to a number of human health, natural environment, and agricultural problems. These cumulative impacts are not generally paid for by individual motorists, or factored into their choice of transportation mode. General research suggests that a positive impact on regional air quality is made when a transit vehicle removes three to twelve cars from the road. According to the Center for Transportation Excellence, when compared with passenger vehicles, each passenger mile on transit generates 95% less carbon

monoxide, 92% less VOCs, and about 50% of the carbon dioxide and nitrogen oxide.[5] As the average fuel economy for all registered vehicles increases due to natural retirement of older inefficient vehicles and more strict CAFE standards for new vehicles, the overall impact to the environment decreases. Nevertheless, mass transit is expected to continue to be a more environmentally friendly form of travel.



Automobile travel generally has more negative impacts on air, noise and water pollution. *Photo: URS Corporation*

Water pollution

Exhaust, tires, oil and other emissions from autos are carried away by water runoff and contaminate surface waters and groundwater supplies. The construction of roadways adds to the impervious urban surface which increases runoff and compounds the spread of water pollution. The construction of a transit asset instead of new roadways will generally have a lower impact.

Noise pollution

Noise pollution has more localized impact than air or even water pollution, and automobile and truck traffic has higher and more sustained noise impacts than mass transit. Noise pollution has an impact on the value and perception of property, in particular parks, residences, and institutions such as libraries and churches.

Energy conservation

One transit vehicle can carry enough passengers to replace a large number (35 for fullsized buses and 90-160 for rail vehicles) of single-occupant vehicles. Attracting choice riders to transit can reduce overall congestion and has transportation benefits to other system users, but also conserves energy (cars and trucks idling in traffic use excess fuel) and improves traffic safety (accident rates are higher on congested roadways).

Public health

The presence of transit services can provide improved accessibility to health care facilities, leading to lower cost routine and preventive care rather than emergency

procedures. Providing connections for low-income, senior and minority populations is particularly important, given the prevalence of medical conditions in these populations and the fact that they are less likely to have access to private transportation. The availability of public transportation also requires, and fosters, a walkable and safer pedestrian environment. Emerging research suggests public health benefits exist for those living in better connected, walkable environments as opposed to auto-dependent environments.

Transportation safety

According to the National Highway Traffic Safety Administration, the economic impact of motor vehicle traffic crashes in Indiana was $4.34 billion in 2000.[6] Public transportation could help to reduce this cost, as statistics show lower accident and injury rates for public transportation users versus automobile passengers. In addition, traffic congestion increases the risk of accident, meaning that the safety impact of public transportation would be heightened in congested areas.

This study demonstrates the existence of unmet demand in Indiana and each trip moved off of the roads and into a transit vehicle represents a lower impact on the environment. Attracting choice riders to the transit system during the peak period in Indiana will require expansion of local bus systems as well as the introduction of fixed-guideway transit into appropraite corridors.

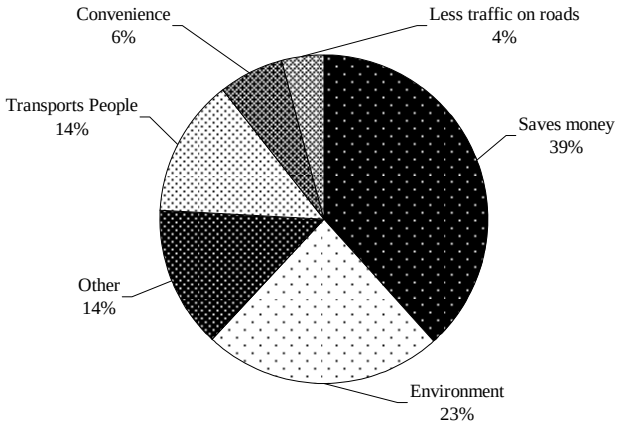
PL 203 Point #8 - Population & Economic Growth

There are numerous economic impacts from mass transit investments, whether it is related to the location of economic activity, the short-term impacts from transit expenditures, or the longer term growth impacts for the economy and individuals.

Urban efficiency & individual economy

Investments in transit and other transportation infrastructure correlate with broader measures of economic well-being at state and national levels. This is, in part, because the sharing of resources helps reduce individual costs for transportation, and this serves as an economic benefit for individual households. At the national level, Americans living in transit-intensive areas are estimated to save nearly $22 billion each year by using public transportation—this impact is particularly significant for low-income families.[7] As of 2000, the poorest quintile of U.S. population spent more than 36% of their monthly budget on travel (compared to 14% for the richest quintile).[8] This proportion has risen significantly in recent years. Public transportation provides lower cost mobility to such households, making them not only more likely to use transit, but also likely to benefit most from its presence. Public opinion in the State of Indiana suggests that individual costs savings are the top benefit of mass transit (see chart below, which shows the statewide responses to the public opinion poll question).

Perceived Benefits of Public Transportation by Indiana Residents



Retail sales

By changing travel patterns and creating more pedestrian traffic, public transportation services can have localized positive impacts on the volume of retail sales near transit stations. Overall effects are likely to depend on the types of retail and the level of transit ridership. According to one study, the existence of a transit station may improve the value of a site for retail by up to eight percent.[9]

Tourism & visitation

By linking major cultural and tourism destinations in an urban environment, public transportation can improve the accessibility of major institutions (e.g., museums, sporting venues, hotels), build a more tourism-friendly environment and ultimately increase visits to the area. Streetcar systems in particular have been a vital part of the downtown revitalization strategy for many urban downtown areas such as Little Rock (AR) and Kenosha (WI), which have each complemented investments in new tourist attractions with streetcar lines that connect them with other key destinations throughout the downtown.

Business development & attraction

By improving the connections for the workforce as well as accessibility to other cities and airports, a region can help build its case as a location for business development. Investment in public transportation also has an impact on the retention of existing businesses in a region, including the potential to relocate within a region to gain access to transit. A recent survey by Jones Lang LaSalle in its *Property Futures* publication found that 77% of "New Economy" companies rated access to mass transit as an "extremely important" factor in selecting corporate locations.[10] Public transportation has played a key role in retaining or even expanding the job base in

the central city areas of numerous locations, such as Denver and Charlotte. As a contrast, major Indiana cities have seen declining employment in relation to the region, which could be at partially attributable to the lack of transit.

Streetcar systems have become increasingly popular as a tool for enhancing and focusing development in communities. Cities like Portland, Tampa, Little Rock and Seattle and smaller communites like Kenosha, WI and Galveston, TX have recently constructed streetcar systems and realized economic growth benefits. This growth cannot be attibuted directly to the streetcar system itself, but research shows that development is more focused along the streetcar alignment and actually occurs sooner as a result of the investment in transit.

Employment & payroll increases

Major transit projects and services are associated with a large number of jobs and direct local investments. Numerous transit investment studies document the investment level of projects, and this can be translated into rough estimates of wages and job creation. The Center for Transportation Excellence estimates that nationally 314 jobs are created for each $10 million invested in transit capital funding. Nationally, the $32 billion transit industry employs more than 350,000 workers in operations, maintenance, and management.[11]

Increased transit investment in the State of Indiana can be expected to net a number of these economic growth impacts. In particular, transit investments in Indiana's major cities and urban areas should be seen as part of a broader statewide strategy toward stabilizing and reinvesting in those communities. Particular areas such as downtown Indianapolis and Fort Wayne exhibit similar characteristics to cities that realized improved markets for tourism and business based on transit investments

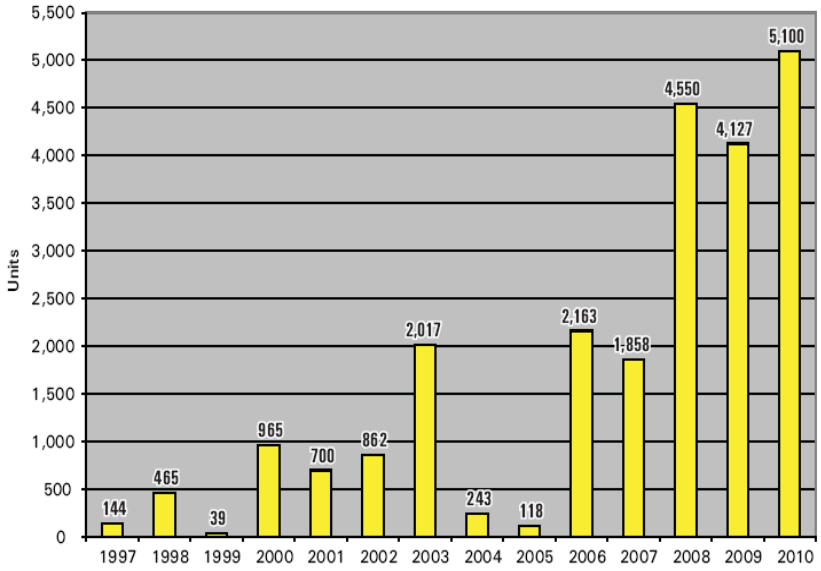
PL 203 Point #9 Transit Oriented Development

Transit allows for the development of dense urban districts and corridors, a development type which could not otherwise be created due to the limitations of roadways to foster dense, walkable environments. These communities are increasingly attractive to key demographic groups (e.g., young professionals) which are important drivers of new economic growth. This dense clustering of growth around transit stations boosts the development potential for these areas, and often creates new value in redevelopment areas or brownfield sites.

A review of national peer cities demonstrates that areas with less intensive transit systems are generally more distributed in their growth patterns, both for population growth and economic (employment) growth. This is a continuous cycle—areas without transit cannot form high-density employment zones due to the limitations of roadway capacity and congestion. And more distributed growth patterns are unable to be efficiently served by transit systems and are used almost exclusively by those dependent on transit. Transit-oriented development is a return to the less auto-centric development patterns of the past, and features more dense development nodes and

districts connected by fixed-guideway transit and a series of local collector/distributor routes.

Housing Units by Year Adjacent to Transit



Since the introduction of light-rail transit in 1997, the Denver region has experienced accelerating levels of residential growth oriented toward the transit stations. *Source: RTD (Denver) FastTracks TOD Status Report, 2007*

A comparison of peer city systems to Indianapolis demonstrates the scale and proportion of development that has occurred after a transit investment. See Appendix A.

- Since the introduction of new light-rail transit in Denver during the late 1990's, there has been a rapid rise in the construction of housing units near transit (see chart above). [12]
- Evidence from Washington, D.C. showed that 40% of new building space, worth $3 billion, was constructed around their new Metro stations during the 1980s. [13]
- Recent studies of the DART light-rail system in Dallas have found that the system has already generated $800 million in development since it opened in the late 1990s.[14]

Meanwhile, connecting the suburban, out-of-state portion of a region (e.g., Northwest Indiana) to its larger metropolitan area can provide new development opportunities for these areas. For example, transit is a key element of a number of development-oriented efforts on the New Jersey portion of the Philadelphia metropolitan area:[15]

- Burlington is along the River Line (NJ Transit) and has been designated a "transit village" by the State, and the City continues to plan for development around transit. The City has already seen numerous commercial and multi-family residential

redevelopment projects. In addition to a number of completed projects, as of 2007 there were more than 180 units being added to transit-adjacent townhome developments.

- The City of Camden is planning for growth along its waterfront to capitalize on the presence of the NJ Transit River Line. Cooper's Crossing is a mixed-use town center located on 70 acres near the Cooper Street/Rutgers station. The $200 million plans include 1,500 housing units, 500,000 sq ft of office space, and 150,000 sq ft of retail, dining and entertainment uses.
- In Cherry Hill the former Garden State Park racetrack is being redeveloped into a $500 million, 222-acre mixed use town center with 1,600 new residential units, a 1 million sq ft corporate office center, and a 750,000 sq ft retail center.

Potential for transit-oriented development in Indiana is highest in the already dense areas around Indianapolis and Chicago. Examples from peer cities demonstrate that dramatic private reinvestment in urban areas has been largely concentrated around transit stations along light-rail lines, streetcars and commuter rail.

PL 203 Point #10 - Demographic Patterns

While mass transit systems are a broad public resource, transit services are known to have particular benefits for key demographic groups, including seniors, low-income persons and other households lacking private transportation options. This is because transportation costs are a major component of household spending, and a particular burden on lower income households and seniors both in urban and rural areas.[16] The availability of reliable and safe transit service is often the only means for accessing employment, medical care, social services, or retail locations for these household types.

Public opinion suggests that serving seniors and the disabled should top the priority list for any statewide transit investment program. This demonstrates the prevailing perception in Indiana of transit as a social service more than a viable, competitive transit option.

Providing more frequent service and a complete transit network in Indiana cities will directly improve the mobility of sensitive populations, along with providing greater access to work for low-income households. A strategic expansion of transit service in the State would significantly improve workplace access and the reliability of transportation to work for many Hoosiers. This is especially critical for the fixed route bus systems throughout the State. Improved frequencies on existing routes and new service targeting employment centers will attract more choice riders.

Broader demographic shifts are difficult to link to transit investments, and are much more dependent on regional, statewide, or even national economic trends. At the same time, the presence of transit (particularly fixed-guideway transit) can have major impacts on property values and types of development, attracting key demographic groups (such as young professionals) looking to live in diverse urban environments.

PL 203 Point #11 - Current and future commuter patterns in identified counties

A review of development and commuting pattern trends in Indiana provides a good indication of those areas where scheduled transit services could provide the most benefit. Scheduled transit to serve commuters works best in areas of dense population and employment density, where travel demand is high and roads are congested. In these areas, transit is often seen as an attractive alternative to driving, especially when it can provide a travel time or cost savings to the commuters. Where development densities are low and trip destinations are widely dispersed, transit cannot sustain the service frequency or coverage necessary to attract commuters. Transit service in rural areas is usually demand-responsive service that is focused on providing basic mobility to transportation disadvantaged populations (e.g., elderly, handicapped and low income).

The regional planning summaries in this report provide information on development and commuter trends in each of Indiana's six regions. Employment centers and areas of high residential density are identified. Existing and future commuting patterns as well as existing and forecast congested roadway segments are also identified. All of these pieces of information, when assessed together, provide a picture of where scheduled transit is expected to work best in Indiana.

Analysis of these development and commuting patterns confirms that transit needs for Indiana commuters are the greatest in and around existing urban areas. Transit will best serve these users through improvements and expansions to existing urban transit systems.

PL 203 Point #12 - Current trends in mass transit on a statewide level

Mass transit in Indiana has experienced modest gains in ridership in recent years, growing from 31.5M transit trips in 2000 to 36.1M in 2007, or approximately 2.1% annual growth. Over this same period, the number of transit systems operating in the state grew from 44 to 61, with most of the new service being provided in rural areas. This growth in rural service, coupled with service expansions in urban areas, led to a 57% increase in the amount of transit service provided between 2000 and 2007, measured in terms of transit vehicle miles.

Operating costs for transit service in Indiana grew 50.1% between 2000 and 2007, from $116.7 million to $175.2 million. These increased costs can be attributed to several sources, including the additional expenditures for new and expanded services and inflation of equipment and labor costs. The overall operating cost per vehicle revenue mile (a key indicator of cost efficiency in transit services) remained relatively stable over this period, between $3.50 and $4.09 (well below the national average of $6.00 to $8.00 over the same time period).

Revenues over the 2000-2007 time period have shown a growing reliance on local funding sources for transit operations. While fare revenue and local, state, and federal operating assistance all grew over this time, local funding grew at a much faster rate, from $31 million in 2000 to $59 million in 2007. As a result, the share of transit costs paid with local funding grew from 27% in 2000 to 34% by 2006. State operating

assistance over this period grew from $28 million to $39 million, but it decreased as a share of total funding, from 24% to 22%. Similarly, federal operating assistance grew from $22 million to $29 million, but decreased slightly in share, from 19% to 18% of total funding. Fare revenue grew from $32 million in 2000 to $41 million in 2006, but slipped from providing 27% of funding to 23%.

In summary, transit ridership in Indiana is growing, and recent trends suggest that is likely to continue. Recent spikes in fuel prices, although now decreasing and stabilizing, have raised awareness about the costs of driving and cost effectiveness of transit to the user. Operating costs in Indiana are rising but remain below the national average. Funding trends are placing more and more burden on local funding sources to sustain transit.

PL 203 Point #13 - A review of federal activities in the area of mass transit on a statewide basis

Several funding programs for transit operations and capital improvements are currently available through the Federal Transit Administration. Some of these programs appropriate funding at a statewide level, while others appropriate funding to specific urbanized areas (through Metropolitan Planning Organizations).

FTA Section 5303 (Metropolitan Transportation Planning) – this program appropriates funding to states to provide assistance to Metropolitan Planning Organizations (MPOs) for the development of transportation plans and other planning-related projects. Each state determines how to allocate this funding to individual MPOs. In 2008, Indiana was allocated $1.3 million under this program.

FTA Section 5304 (Statewide Transportation Planning) – this program appropriates funding to states for planning-related activities outside urbanized areas. In 2008, Indiana was allocated approximately $300,000 under this program.

FTA Section 5307 (Urbanized Area Formula Program) – this program appropriates funding to specific urbanized areas for transit capital improvements and operating assistance (operating assistance only available in urbanized areas with populations below 200,000). In 2008, approximately $298 million was appropriated to these areas (including parts of the Chicago, Cincinnati, Louisville, Evansville, and South Bend urbanized areas outside Indiana).

FTA Section 5309 (Capital Investment Program for Fixed Guideways; Bus and Bus Facility Program; New Starts Program) – these programs provide funding for capital improvements on fixed guideway (rail) and bus transit systems. The New Starts program provides capital funding for new fixed guideway services, while the other programs primarily provide assistance for the purchase of new vehicles and equipment and improvements to facilities on existing transit systems. In 2008, $19 million was allocated for bus and bus facility projects in Indiana, $167 million was allocated for rail capital purchases in the Chicago and South Bend urbanized areas, and $5 million was allocated to the Northern Indiana Commuter Transportation District (NICTD) under the New Starts program.

FTA Section 5310 (Special Needs for Elderly Individuals and Individuals with Disabilities) – this program appropriates funding to each state for capital funding assistance on services that provide transportation to the elderly and disabled persons. Each state may determine how to allocate this funding to eligible local agencies and non-profit organizations. In 2008, Indiana was allocated $2.6 million under this program.

FTA Section 5311 (Non-urbanized Area Formula Program; Rural Transit Assistance Program (RTAP)) – these programs are the rural equivalent of FTA Section 5307 for urban areas. The formula program provides funding to states for operating and capital assistance on rural transit systems. The RTAP provides funding to states for technical assistance, training, and research related to rural transit. In 2008, $12.9 million was allocated to these programs. The 5311 program also contains a provision for subsidizing intercity services that connect remote communities to intercity transportation facilities such as intercity bus depots, Amtrak or airports.

FTA Section 5316 (Job Access and Reverse Commute Program (JARC)) – this program provides funding assistance for transit programs that provide improved job access to low-income individuals and/or provide access to job centers in suburban areas from urban and rural areas. Funding is allocated directly to large urbanized areas (over 200,000 population), and provided to the state for use in small urbanized areas (between 50,000 and 200,000 population) and rural areas. In 2008, $6 million was allocated to large urban areas in Indiana (including parts of the Chicago, Cincinnati, Louisville, and South Bend areas that are outside Indiana), $768,000 was allocated to Indiana for small urban areas, and $629,000 was allocated for rural areas in Indiana.

FTA Section 5317 (New Freedom Program) – this program provides funding for transit projects that provide new transit services/alternatives to disabled persons beyond what is required by the Americans with Disabilities Act of 1990. Similarly to JARC, funding is allocated directly to large urbanized areas and allocated to the state for small urban areas and rural areas. In 2008, $3.8 million was allocated to large urban areas in Indiana (including parts of urban areas that lie outside the state), $450,000 was allocated for small urban areas, and $495,000 was allocated for rural areas.

PL 203 Point #14 - Funding options for pilot mass transit and alternative transit systems

There are number of examples of pilot programs implemented to test transit applications from around the country that can be broken down into two primary categories - operations and capital/support/technology. Each of the FTA funded programs described under Point #13 allow the expenditure of program funds for the development of pilot projects. The funds under those programs in Indiana are currently utilized to the fullest extent and therefore, not available for pilot projects. There are two additional federal transportation programs well suited for pilot programs since they can either be used for a limited time for operations or are only available for capital expenditures.

- Transit Operations

  FHWA Congestion Mitigation/Air Quality Funds (CMAQ – 23 U.S.C. 149) Up to three years of transit operations are eligible under this program for projects that are implemented within regions that are either non-attainment or maintenance areas for air quality. The project must have a documented air quality benefit.

  Note: FTA 5316 and 5317 described above are well-suited for pilot programs given the modest level funding associated with them and the difficulty of sustaining projects over time with the formula funds.

- Transit Capital/Support/Technology[17]

  Surface Transportation Program (STP - 23 U.S.C. 133) Capital costs of transit projects that are eligible under Ch. 53 of 49 U.S.C., including vehicles and facilities, publicly or privately owned, that are used to provide intercity bus service; carpool projects and fringe & corridor parking facilities; transit safety infrastructure improvements and programs; transit research, development and technology transfer; surface transportation planning programs; public transportation management systems under 23 U.S.C. 303.

  National Highway System (NHS - 23 U.S.C. 103) Transit improvements within a NHS corridor, subject to statutory conditions set in 23 U.S.C. 103 (b)(6)(C); transportation planning in accordance with 23 U.S.C. 134 & 135; fringe and corridor parking facilities; carpool and vanpool projects; public transportation management systems under 23 U.S.C. 303; publicly owned intra-city and intercity bus terminals.

2.0 Study Inputs

The Mass Transit Studies were heavily dependent on a comprehensive review of recently developed transit plans and programs from around the State. The size and scope of this project were such that it was critical to get a baseline of transit needs and potential investments from the regions themselves. In addition, 152 elected officials and representatives of key agencies were identified and interviewed about transportation issues, the role of transit and the perception of transit within their respective regions. In addition, a statewide public opinion poll was conducted to get input from the public on transit needs, their overall perception of transit, transit funding, transportation priorities and role of INDOT in transit development statewide. Regional findings are woven into the analyses for each region included in Section 3.

2.1 Stakeholder Interview Summary

There were elected officials and representatives of key agencies identified for interviews as part of the Indiana Mass Transit Studies. The primary purpose of the interviews was to gain a fuller understanding of transportation issues, the role of transit as a potential solution and the public perception of transit in each region. Of the 277 individuals indentified, a total of only 152 interviews were actually conducted due to refusals, inability to contact individuals and other scheduling issues.

The following section summarizes the interviews and is organized based on the questions that were asked.

1. What is your definition of transit?

The purpose of this question was to obtain what the individual has in mind when they consider transit and transit investment. Overall, the stakeholders understand that transportation problems and the consideration of using an investment in transit as part of the solution brings forward a number of potential modes, service levels and applications. Its can also be inferred from the responses that individuals understand that rail is not appropriate nor affordable everywhere in the State and that there must be a concerted effort to address issues with the appropriate level of investment and ultimately type of service. The responses included a multitude of potential modes/technologies of transit – ranging from light rail to vanpooling to rural demand response service.

2. What do you think are the benefits of transit? Negative impacts?

The most common benefits of transit identified by stakeholders were that transit offered mobility to transit dependent populations. Conversely, the biggest drawbacks of transit were the lack of ridership/utilization and the poor return on investment. These dichotomous responses really represent the central issue with transit overall and form the basis of how the stakeholder perceive transit. In most areas of the State, transit service is design to serve transit dependent populations and is under-sized to a point where it lacks the level of service and design elements to be convenient enough for choice ridership. The stakeholders see transit services in there

current form and it's hard to justify additional investment because of the current productivity of the service.

There were a number of representatives of Chambers and other private sector focused individuals who acknowledge the potential economic benefits of fixed guideway transit. Other benefits included reducing congestion and improving air quality; while other negative impacts identified by the stakeholders were the lack of convenience and expense of transit service.

3. How would you describe the public opinion of transit? Does the public share your opinion of the benefits and impacts of transit? Why or why not?

Most stakeholders felt that the vast majority of the general public had never tried transit and therefore held the opinion that it was public service for low income and not a commute option. Transit is either not available or residents do not know that it is available and therefore do not consider it an option.

However, there is a growing segment of the population that is searching for alternatives in light of gas price volatility and congestion on the roadways. They also felt that although the public would support increased transit service they will not support increased taxes to financially support such services. The opinions of stakeholders in NW and Central Indiana were decidedly different on this topic and felt that there was growing momentum for increased transit in their respective regions.

4. What have you heard from the public/special interest groups and others about the need/demand for transit in your community/region?

Over two-thirds of the stakeholders agreed that public transit needed to be expanded and additional funding should be generated. Most felt that the public felt the same way especially in the urban areas.

5. What areas or corridors in your region do you think need more or better transit? Why?

Information from this question was incorporated into the Regional Mass Transit Studies included in Section 4.

6. What sectors of the population should transit be designed to serve?

Responses to the question were quite diverse and ranged from commuters to the transit dependent to everyone. Stakeholders representing transit agencies desired more resources in order to have the flexibility to design services that could attract choice riders.

7. How would you describe the relationship between economic development and transportation? Between economic development and transit specifically?

Almost all of the stakeholders acknowledged an inter-dependence between economic development and transportation. Some expressed a concern that regardless of transportation investments that it is very hard to direct development. However,

transit investments (rail investment) have been able to focus development in some urban areas.

8. What are some issues associated with transit and/or the investment in transit? What suggestions do you have for addressing these issues?

Many of the stakeholders cited the lack of understanding of transit on the part of the public and that educational programs were needed to improve understanding.

Another issue is that it is very difficult to match the level of service to demand. As an example, the riding public may want light rail but actual demand may call for bus. If bus service is implemented, those who wanted rail do not ride and the investment is considered a failure or does not reap the benefits originally desired.

Stakeholders also took issue with the fact that transit does not pay for itself, which raises the question of user fees versus subsidy. Mechanisms for funding roadways are mostly based on the tax on motor fuel which can be considered a user fee since those who use the roads buy fuel in order to do so. The user fee on the transit side is the fare which in the best cases funds only 30-40% of the cost of operating transit services and none of the capital costs of transit. Therefore, any funding for capital expenditures and the net operating costs is considered a subsidy for transit. The connotation of a subsidy versus a user fee puts transit at a disadvantage when competing against roadways for funding.

9. How should transit be funded/financed?

Most stakeholders agreed that funding for transit needed to come from a mix of sources at all levels of government as well as the private sector. New taxes, however, were not high on the list although stakeholders believed that taxes will be necessary to meet funding demands.

10. What do you think are the best mechanisms for local funding of transit? If any?

User fees were the most popular response to this question but it is difficult to determine if the stakeholders were thinking about raising fares on transit or that user fees like toll receipts and the gas tax were viable methods for funding increased transit service. Other potential mechanisms included sales tax, income tax, commuter tax and alcohol/cigarette tax.

2.2 Public Opinion Poll Summary

The Survey Research Center at IUPUI conducted a telephone survey that involved 1,693 interviews with randomly selected adults throughout Indiana. The survey was conducted in September and October of 2008 and resulted in a response rate of 26 percent, which is typical for a telephone survey. The interview covered a variety of topics related to public opinion and experiences with public transit. More information on the survey, including the survey questions, a discussion of methodology, and detailed results, can be found in Appendices J & K.

Benefits and drawbacks of mass transit:

Many respondents felt the main benefit of public transportation was that it is a good cost saving measure (39%) or that it was good for the environment (23%). There were some regional differences in perceived benefits as well as differences based on income, with higher income respondents more interested in the pollution control issues than lower income adults. The main drawbacks mentioned by respondents had mostly to do with the lack of freedom compared to using one's own vehicle (47%) and inconvenient routes (23%). These concerns were quite similar throughout the state with no significant regional differences found. It is significant that the most popular benefit of transit was the cost savings to the users even among those who had never used transit. A large part of the debate over funding transit is that transit is funded by subsidies as opposed to user fees for roadways. The survey indicates that the general public appreciates that government spending is making transportation more affordable.

Major drawbacks to using public transit centered on the perception of loss of spontaneity and freedom that comes with using one's own vehicle. Yet, the main driving change people reported is that they cut down on spontaneous trips. (Design of public transit must focus on convenience while marketing should focus on the cost savings and environmental benefits.)

Current transit usage:

Approximately 83 percent of adults in Indiana have never used public transit. Only about five percent report they use it at least once a week; minorities and low income adults are four times as likely to be daily users. There were significant regional differences, which should be expected due to the unavailability of public transit in many areas. For example, over two-thirds of rural adults report they do not have public transit available to them in their community. Northwest Indiana (22.3%) and Central Indiana (19.3%) had the highest proportions of people who had used transit before, and these are also the most populated areas of the state. On the other hand, Northwest Indiana had the lowest proportion (2.8%) of regular (daily/weekly) riders of any of the regions, which indicates that the local transit system is not meeting work trip needs.

Government responsibility and funding for mass transit:

Roughly 40 percent of the adults in Indiana feel that public transit should be the responsibility of local government and another 40 percent feel it should be run by state government. This does fluctuate significantly when comparing different regions of the state.

Two-thirds of the public feel steps should be taken to raise more revenue for public transportation. However, no more than 15 percent support any one type of tax, though many more (47%) support creative uses of grants and diversion of dollars from non-transportation sources such as alcohol, tobacco and gambling revenues. There are not significant differences in the support of additional transit funding across the different regions.

Transportation and transit priorities:

Respondents were asked to rate the importance of several sets of priorities:

1. INDOT priorities for public transportation
2. General transportation priorities in their communities
3. INDOT general transportation priorities in Indiana.

The one recurring theme throughout these three sets of options was the preference among Indiana adults to focus on vulnerable populations. The needs of the elderly, the disabled and low income consistently ranked at or near the top of the lists. The one exception was that for local transportation priorities, street and highway maintenance was most important. The top transportation priority for government was maintaining roads and bridges for all regions. Expanding bus services, however, was more popular than building new roads suggesting that respondents are interested in alternatives.

Major conclusions

As Indiana prepares for the immediate future, the results of the survey suggest some concepts to guide the planning process for transit investment.

1. There are significant regional differences in priorities, attitudes and reported use of public transit that should be factored into the planning process (local input is needed),
2. A significant majority (over 80%) of the adult population in Indiana has no experience using public transportation and therefore are basing their opinions on speculation (public education is needed),
3. A majority of adults (60%) reported they changed their driving habits as a result of higher gas prices, but almost none reported they started using public transit (the cost of driving is less of an incentive to use transit than other factors),
4. There is a general belief among the public that public transit should be a public service for those who can benefit most from it: the elderly, disabled and low income (more service is needed for transit dependent populations).

2.3 Plans and Programs

URS reviewed existing plans and programs in the State of Indiana, including statewide as well as regional documents pertaining to transit and transportation in general. The plans and programs provided a basis for the creation of transit recommendations. The plans and programs reviewed as part of this study are discussed for each of the six region identified for the study, which is summarized by region in Section 4 and discussed in greater detail in Appendices C through H. A statewide summary of plans and programs is included in Appendix I.

3.0 Peer Systems Analysis

In order to compare Indiana transit systems to their peers, and to document the potential impacts of transit for Indiana cities and regions, a group of national "peer cities" has been identified for this study. The goal of the analysis is to determine which lessons can be learned from the transit implementation in other communities and to determine the potential benefits and risks of transit investment for Indiana communities.

This approach was selected because it is difficult to universally translate a given level of transit service or an amount of transit investment into a well-defined benefit amount especially when specific details about the transit investment is not completely defined. So much depends on the local environment, intensity of transit investment, details about the investment, its place in the existing transportation network and the economic trends affecting that community. It is possible to, however, to provide a comparative analysis of the experience of other communities which have made the choice to invest in transit.

In addition, it is not logical to analyze the experience of a large, urban metropolis (e.g., Chicago) and apply those results to a much smaller town (e.g., Muncie). Instead, an attempt has been made to match Indiana cities with similar examples. An overview of the selection of peer cities and key findings from the analysis follows below; additional detail and comparative data can be found in Appendix A.

3.1 Selection of Peer Cities

A set of six different types of communities, from major metropolitan areas to rural counties, was chosen with the understanding that the scale and types of impacts can be very different in different settings.

The table on the following page notes the community typologies chosen for this study. The "peer cities" shown were chosen based on a variety of factors, including:

- **Population** – The relative size of a city and its region determines the overall demand for trips and thus the potential size of a public transportation network.
- **Growth trends** – The development trends of a region are an important factor for transit. Is the entire region growing in population and employment? Is the central city contracting while suburban areas grow?
- **Geography** – The political and physical geography of a place can affect trip-making and regional connectivity, for example where metropolitan areas cross state boundaries or major rivers.
- **Transit System** – A key factor for choosing peer cities was their recent investment in transit or reputation as having a relatively well-run transit system for a city of its size. In this way it is possible to determine impacts of new transit investment to the region.

Community Typologies

Typology	Attributes	Relevant Indiana Cities/Regions	Peer Cities
Major Metropolitan Area	Population threshold: >1M in MSA	Indianapolis	Charlotte Dallas Denver Minneapolis Pittsburgh Salt Lake City
Major Metropolitan Area – Suburban Portion	Counties / Cities bordering Major Metropolitan Areas centered across State line	Chicago MSA Louisville MSA Cincinnati MSA	Chicago MSA (Metra / NICTD) Philadelphia MSA (NJ Transit) St. Louis MSA (Metro)
Medium City	Population threshold: 200k-1M in MSA	Fort Wayne Evansville South Bend - Mishawaka - Elkhart	Quad Cities IL/IA Albuquerque NM Charleston SC Little Rock AR
University/College Town	Population threshold: <300k in County / MSA and location of major college or university	Bloomington (Indiana University) Muncie (Ball State) Terre Haute (Indiana State) Lafayette / West Lafayette (Purdue)	Chapel Hill NC Ft. Collins CO Champaign IL
Small City	Population threshold: <200k in County / MSA with small-sized City	Kokomo Anderson Columbus Richmond Marion	Paducah KY Florence SC Traverse City MI
Rural Areas	All Counties/Cities not included above	Remaining Indiana Cities/Counties	Central Texas (CARTS) SE Oklahoma (KI BOIS)

3.2 Key Findings of Peer Systems Analysis

The following summarizes some of the key findings from the survey of peer cities. At the end of this section find a table which rates the scale of potential impacts in each of the community types.

Comparative Notes

- Even though they are similar in size, density and other factors, Indiana cities generally have lower transit investment and service than their peers and thus less transit-related impacts. The analysis shows that spending on transit is nearly always lower, as is transit usage.
- Unlike some of the peer urban areas, the overall economic environment in Indiana is typified by slow growth or even decline. In particular, existing core cities in Indiana are experiencing population loss and declining employment. Notable exceptions are Indianapolis, portions of northwest Indiana, and the two major university towns, Bloomington and Lafayette.

Major Metropolitan Areas

- Major cities such as Charlotte and Denver are expected to maintain or grow their share of the regional employment market, even as areas around the outside fringe of the region expand. Investment in transit is a key facet of the economic growth strategy for these areas, which involve not only major office tenants and corporations but also development of the entertainment, cultural, tourism, and service industries.
- Major cities and urban areas have the most congestion issues, making transit's impacts on congestion most evident in these environments. While transit is unlikely to eliminate congestion, adding transit to a major highway corridor can slow the growth of congestion growth over the long term.
- Congestion issues are particularly severe for those out-of-state portions of metropolitan regions which are separated by major rivers or other bodies of water.
- Numerous cities, including Dallas and Chicago, have accomplished comprehensive studies showing that the value of property increases as it becomes closer to rail stations.
- The FTA New Starts program has been the primary funding source for most of the major light rail expansions being constructed in the major metropolitan areas. This is a long-term, competitive funding process which means that transit projects often experience 10 or more years from initial studies to beginning operations.

Medium Cities

- While recent major investments in fixed-guideway transit have occurred via the New Starts program, medium cities have difficulty meeting the FTA standards for cost-effectiveness.

- The Rail Runner in Albuquerque is an exception, and is pursuing funds to for its second phase connecting to Santa Fe, effectively joining the two major cities in New Mexico. This strategy may be repeatable for Indiana's medium cities, with improved regional connections (e.g., Fort Wayne to Indianapolis or South Bend/Elkhart to Chicago).
- In the absence of other large-scale transit systems, many medium cities have pursued streetcar and trolley systems as an economic development tool to connect tourist destinations in the central city. The experience in Little Rock provides a key example.
- Local bus systems and services are the least likely to attract "choice" riders, or those who have the means to choose another travel option. In the medium-sized or smaller city types where bus is the only local option, the percentage of transit dependent ridership for a system can be as high as 80%.

College/University Towns

- Cities which include a major university or college were studied separately for a number of reasons, but the key differentiator is that the student base provides a large (and highly concentrated) population of low-income households. These low-income households are active, often having to make numerous trips per day to different parts of the campus or the city.
- Large state universities are increasingly becoming drivers for economic growth regionally and statewide. A review of the peer cities shows many college towns considering improved public transportation connections to the rest of their respective states and regions.
- Transit systems in College/University towns often benefit from the student base, but the peer city studies show very little impacts of transit on land use and development patterns. Instead, bus systems concentrate on serving the existing campus and city centers, which are not always adjacent.

Small Regional Cities & Rural Areas

- Local bus systems and services are the least likely to attract "choice" riders, or those who have the means to choose another travel option. In the medium-sized or smaller city types where bus is the only local option, the transit system ridership can be made up of more than 80% transit dependents.
- For smaller cities, the bus system and dial-a-ride services are primarily viewed as a public service for transit-dependent populations, and at least one of the peer cities (Florence) has reduced fixed-route bus to focus on serving point-to-point trips for workers, seniors and others.
- As in medium cities, streetcar and trolley projects have experienced some success in bringing tourists and visitors to downtown areas. These systems are generally more a part of the economic growth strategy for a region than the transportation strategy.

3.3 Strategic Results

A key theme across all impact areas is this importance of proactively making the connection between a transit investment and its benefits. While the potential for positive social, economic and environmental effects from a transit investment are easy to identify, the actual impacts will be dependent not only on system usage but also the ability of a State or region to link transit service to other planning efforts around issues such as job access, economic development, and sustainability.

Typically, fixed-route transit systems (e.g., light rail) have limited ability to serve the growing number of suburb-to-suburb work trips that are making up a larger proportion of trip types in nearly every region. This has led some areas to adopt a more demand-response focus for their transit system, particularly in smaller regions.

Areas without transit systems are generally more distributed in their growth patterns, both for population growth and economic (employment) growth. This is a continuous cycle—areas without transit will find it more difficult to form high-density employment zones due to the limitations of roadway capacity and congestion.

4.0 Regional Mass Transit Studies

The following sections summarize the assessment of transit demand and service within each of the six regions in Indiana which also required by PL 203. The development of these plans required a four step process.

1. **Estimate Demand** - Several methods were used assess demand, reflecting the different transit functions in rural and urban areas, as well as the dependence of demand on the quality of transit service. The methods for rural areas consider the trip-making characteristics of elderly, disabled and low-income individuals most likely to use demand-responsive systems. In urbanized areas, the daily commuter trips that are best served by fixed route systems with more frequent service are also considered. The result is a range of demand estimates from low-end estimates of demand for basic service to high-end estimates of demand for high-quality service unconstrained by funding levels. This range is best interpreted as an "order of magnitude" demand estimate for transit service in the region. Ultimately, more definitive transit demand estimates must reflect local conditions.
2. **Review and Incorporate Study Inputs –** In addition to the information generated from stakeholder interviews, the public opinion poll and plans and programs, regional demographic, economic and transportation related data was incorporated into the finding for each of the regions.
3. **Assessment of Service Levels –**In order to begin to meet unmet demand for transit significant increases in the current level of transit service will be required. Rather than striving to fulfill all unmet needs, this study focuses on potential investments which would move it closer to achieving long-range transit mode share targets of 0.8% of rural trips, and 1.5% of urban trips. These targets were chosen based on the experience in the peer systems analyzed for this report and represent a substantial increase in investment. It is at these levels of service; however, that transit service begins to provide the benefits outlined in the responses to the 14 points of PL 203. In addition, urban mode shares of 1.5% overall correlate to double-digit peak period mode shares in localized areas and corridors where transit is most effective and yields the most benefit. The current urban area mode share for Indiana is 0.46% of all trips. A rural mode share was not available. Local and regional transit expansion plans and programs served as a foundation for the service improvements included in this study.
4. **Order of Magnitude Cost for Service Improvements –** Cost estimates for the prescribed implementation transit services were based on fleet expansion and the existing operations cost per vehicle by type of service. All costs are expressed in 2007 dollars.

   It should be noted, that at the statewide and regional level, there is no guarantee that the implementation of transit included in the cost estimate will garner the level of ridership prescribed in Step 3. There are insufficient details about the transit improvements that make a traditional ridership calculation, or travel demand model estimation impossible. The sole purpose of this exercise is to give an indication (order of magnitude) of the level of investment needed for transit in Indiana to attain the benefits found in the peer systems and outlined in the responses to the 14 points of PL 203 (Section 1).

4.1 Central Indiana

The Central Indiana Region is the most dense and fastest growing area in Indiana and consists of the counties of Boone, Delaware, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Monroe, Morgan and Shelby. Total 2007 population in the region was 2,018,700. This included 1,643,400 in the Indianapolis Metropolitan Area, 131,300 in the Anderson Metropolitan Area and 128,600 in the Bloomington Metropolitan Area and 115,400 in the Muncie Metropolitan Area. The table below summarizes some of the key statistics indicators for economic growth.

Population Growth 2000-2010	Unemployment 2006	Employment Growth (1996-2006)	Population Density Persons/sq. mi. (2007)
12.4%	4.6%	10.2%	468

4.1.1 Regional Transit Demand Assessment

Several methods were used in this study to estimate transit demand in the region. Depending on the method used, demand for transit service in the Central Indiana Region was estimated to be between 28,266,000 and 84,800,000 annual one-way trips in 2007. Transit providers in the region collectively served approximately 14,850,000 one-way trips in 2006, which met between 18% and 53% of the estimated regional demand.

Areas with dense population, concentrated employment and roadway congestion exhibit the characteristics that generally support fixed-route transit service. In the Central Indiana region, the areas most likely to sustain this type of service are Marion County; southern and central Hamilton County; eastern Hendricks County; northern and central Johnson County; northeastern Morgan County; and the Anderson, Bloomington, and Muncie areas.

IndyGo currently provides fixed-route bus service within Marion County and a small portion of the City of Greenwood in Johnson County. IndyGo also operates express bus service between downtown Indianapolis and Fishers and Carmel in Hamilton County. Planned service improvements for IndyGo include a downtown Indianapolis transfer facility, increased service in Marion County, expansion of local service into suburban areas in surrounding counties, and additional express bus routes. The Indianapolis Metropolitan Planning Organization (MPO) is also studying possible corridors for implementation of a regional rapid transit system. The MPO recently selected commuter rail (convertible to diesel light rail in the future) from downtown Indianapolis to Noblesville as the preferred alternative for the first segment of this system.

Fixed-route bus service is also currently provided in the Bloomington, Muncie and Anderson metropolitan areas. In each of these areas, long range plans focus on improvements to existing service and expansion to new areas as growth occurs. Both the Muncie and Anderson plans mention the possibility of future commuter rail service to Indianapolis. The Bloomington plans call for the development of a regional transit authority to provide better integrated service throughout the area.

Rural/suburban demand-response service is currently provided in Delaware, Madison, Hancock, Shelby, Johnson, Morgan, Hendricks, Boone, and Monroe counties, and in the City of Noblesville.

Existing transit service plus planned improvements in the Central Indiana Region generally provide good geographic coverage of the transit-supportive areas identified in this study. Planned improvements to the bus systems and development of a rapid transit system in the Indianapolis area will reduce the gap between service demand and supply in this region.

4.1.2 Potential Transit Implementation

Central Indiana offers the highest potential for new transit investment based on its trend of economic growth and development. A considerable amount of momentum has recently been generated within Central Indiana for the increases in transit service. The Northwest Corridor between Noblesville and Indianapolis is about to enter the FTA New Starts project development process. Downtown Indianapolis exhibits the economic growth and concentration of employment similar to other cities where fixed guideway systems have been implemented. A coalition supporting a fixed guideway transit investment in the downtown area has begun planning for one in the vicinity of IUPUI. Also part of PL 203 (the legislation enabling this study) feasibility studies were conducted on the potential for commuter rail between Indianapolis, Bloomington and Muncie.

Given the growth and transportation need within the region these investments are both warranted. However, it is important the region does not lose sight of the need to make major improvements to their fixed route systems as well as the rural programs. They will become more viable commute options and also increase the viability of the fixed guideway investments.

The transit investments for the region to address unmet demand and to achieve the benefits included in the 14 points of PL 203 include the following.

- *Expanded bus and added rapid transit service in Indianapolis metropolitan area*

  Description of Potential Service: More frequent bus service as well as investment in rapid transit (e.g., light rail or bus rapid transit) would provide a more functional transit system in the Indianapolis region. Rapid transit is planned for key urban/suburban corridors such as the northeast corridor toward Fishers and Noblesville. Additional corridors for service are under study, and could include a southern service to Greenwood.

- *Indianapolis commuter rail service to Muncie and Bloomington corridors*

  Description of Potential Service: These commuter rail services would connect downtown Indianapolis with other major cities in the Central Indiana region, functioning as a peak period commuter train for service into the employment, government, entertainment and tourism hub of Indianapolis. The service would also connect the Indianapolis metropolitan area with two major state universities.

- *Bloomington & Muncie bus service expansions & downtown circulator(s)*

  Description of Potential Service: Expansion of the coverage area and service levels for the Bloomington area have been planned locally, as well as the creation of a circulator service that would operate in the downtown. Bloomington is home to Indiana University, which has driven economic growth in the region. Muncie is home to Ball State University, and the Muncie Indiana Transit System has plans to expand its service offerings in the area, which currently include a number of fixed-route buses which converge on a downtown transit center. Each of these systems has the long-term potential of connecting to commuter rail service to Indianapolis.

- *Anderson bus service expansions*

  Description of Potential Service: Anderson bus service currently consists of six fixed routes. Expansion of the frequency and coverage of this service will meet additional transit needs identified for the region.

- *Downtown Indianapolis fixed guideway*

  Description of Potential Service: A new streetcar, or other type of fixed guideway transit investment, serving downtown Indianapolis would connect many of the state government and tourism locations in the area, and offer the opportunity to enhance development and growth in the Central Business District. A small system serving IUPUI and the Zoo is currently under consideration by a downtown coalition.

- *Increased Demand Response Service throughout the region's rural areas*

  Description of Potential Service: The needs assessment for the region showed that there is still unmet demand for transportation services in the rural areas. The introduction of county-wide demand response service into Hamilton County (above and beyond what the human service agencies are providing), as well as expanded service in the other counties will be instrumental in moving toward meeting demand.

4.1.3 Summary

Indianapolis is at the decision point regarding whether the investment of fixed guideway transit will play a role in the transportation network. Stakeholders in the region are excited about the potential benefits of transit in terms of the economic development, environmental impacts and improvement in mobility for the region's residents. They also realize that transit has a number of stigmas associated with it that will not be easy to overcome. The biggest drawback to transit for stakeholders is the cost of initiating these systems (connoting rail service).

A recent survey completed by the Indy Metropolitan Chamber of Commerce indicates that the general public in the region supports the implementation of new transit service, which was corroborated by the poll conducted as part of this study.

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The table below illustrates the increases by type of service. It is assumed that in addition to the NE corridor that one other similar corridor (not defined), two commuter rail lines (Muncie/ Anderson and Bloomington), downtown Indianapolis investment and 100-150% increases in the fixed route systems that serve the region. Potential funding sources are summarized in Section 5. A further breakdown of costs is provided in Appendix C.

Cost Estimate for Central Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$3.05	$13.8	$8.7	$174.0	422.4
Vanpool	N/A	$1.5	0	0	27.0
Urban Bus	$56.1	$143.9	$59.7	$1,194.0	$3,784.2
Fixed Guideway	0	$27.7	$99.1	$1,982.0	$2,480.6
Total	$59.2	$186.9	$167.5	$3,350.0	$6,714.2

In millions 2008 $ - no escalation.

4.2 Northwest Indiana

The Northwest Indiana region contains the counties of Cass, Elkhart, Fulton, Jasper, Kosciusko, Lake, LaPorte, Marshall, Miami, Newton, Porter, Pulaski, St. Joseph, Starke, and Wabash. The 2007 population in this region was estimated at 1,562,000. This included 762,500 residents in the Gary/Hammond Metropolitan Area and 464,000 residents in the South Bend/Elkhart Metropolitan Area. The table below summarizes some of the key statistics indicators for economic growth.

Population Growth 2000-2010	Unemployment 2006	Employment Growth (1996-2006)	Population Density Persons/sq. mi. (2007)
1.7%	5.2%	2.5%	233

4.2.1 Regional Transit Demand Assessment

Several methods of estimating transit demand were used in this study to estimate transit demand in the region. The current (2007) transit demand estimates for the Northwest Indiana region range from 15,773,000 to 51,874,000 one-way trips annually, depending on the method used. In 2006, transit services in the region provided 6,124,000 one-way trips, which met between 12% and 39% of the estimated regional demand.

Areas with dense population, concentrated employment and roadway congestion exhibit the characteristics that generally support fixed-route transit service. In the Northwest Indiana region, the areas most likely to sustain this type of service are: northern Lake and Porter counties, including Valparaiso; the Michigan City and LaPorte areas in LaPorte County; northern St. Joseph County; and northwestern and central Elkhart County.

Currently, transit service in this region is provided by multiple agencies. Bus service is provided in parts of Lake County by Gary Public Transportation Corporation, Hammond Transit System, and East Chicago Transit. V-Line and ChicaGo Dash provide bus service in the Valparaiso area of Porter County, and Michigan City Transit provides bus service in northern LaPorte County. In South Bend and Mishawaka, bus service is provided by TRANSPO, while the Interurban Trolley provides bus service in Elkhart and Goshen. Regional transit service is provided by the Northwest Indiana Commuter Transportation District (NICTD), which operates the South Shore commuter rail service between South Bend and Chicago.

MPO and transit agency plans in the Northwest Indiana region call for numerous improvements to existing transit service. Among these planned improvements are the extension of NICTD commuter rail service into southern Lake and Porter counties, the provision of expanded and coordinated bus service in Lake and Porter counties, the addition of bus service connecting Michigan City and LaPorte, the expansion of bus service in Elkhart County, and improved connections between bus services in St. Joseph and Elkhart counties. These improvements are consistent with the areas identified in this study as supportive of fixed-route transit service. Efforts to expand and coordinate service in this region, as well as provide more regional connecting service, should help reduce the large gap between the service provided and the level of potential demand.

Outside the urban areas, rural demand-response service is currently available in Kosciusko, Fulton, Wabash, Miami, Cass, Pulaski, Starke, Jasper, and Newton counties and the City of Plymouth.

4.2.2 Potential Transit Implementation

The focus of transit in NW Indiana has for a number of reasons been focused on commuter travel to and from Chicago. The Long Range Transportation Plan maps out a strategy for supporting the pattern of commuting by recommending two new commuter rail lines that will increase access for the southern portions of each county. The emphasis on commuter rail is justified and a key strategy for the region, however, it will be important to improve local and regional bus services as laid out in the RBA's strategy, especially if the region is going to move toward accommodating a higher percentage of the unmet needs. The introduction of a bus rapid transit facility, express bus (regional service), increased frequency and service area of the local systems and improved feeder service to the commuter rail will be critical to the attraction of a larger percentage of the travel market.

The South Bend/Elkhart metropolitan area can also benefit from a similar strategy by focusing increasing the convenience of its system through better frequency of service and expanded routing.

Based on operating cost and the size of their fleets, the rural areas of the region need to improve their utilization and expand their services to meet unmet demand. The operating cost per vehicle of $33,000/year is among the lowest in the State and suggests that the vehicles are not in operation for significant portion of a given day.[18] In most cases, the utilization of rural service vehicles is directly related to the limits in available funding.

Highlights of the transit investments prescribed for the region to address unmet demand and to achieve the benefits included in the 14 points of PL 203 include the following. More detailed information about service improvements and projected benefits is included in Appendix D.

- *Increased NICTD commuter rail service throughout Lake and Porter Counties (from Long Range Plan)*

  Description of Potential Service: New commuter rail service has been planned which would serve the growing areas south of the I-80/94 corridor in Lake and Porter Counties. The two lines are 26 and 18 miles in length, will cost approximately $1 billion to construct and will require about $14 million per year to operate (Based on information obtained from the regional plans and estimated fleet sizes.)

- *Expanded bus routes/Implementation of BRT facility central Lake and Porter Counties*

  Description of Potential Service: The Regional Bus Authority has developed plans to expand local bus service to areas south of I-80/94 in Lake and Porter Counties. This area includes the towns of Schererville, Merrillville, Crown Point, Hobart and Valparaiso, which make up some of the fastest-growing communities in the State. There is also a demonstrated need for additional frequency and coverage for transit service in existing areas, as well as better coordination between the three bus agencies in Hammond, Gary and East Chicago. Expansion should also include the introduction of express routes in critical corridors and the cost estimates include the implementation of a bus rapid transit facility to further enhance service. For the purposes of this study, the actual location of the BRT was left undefined but should be considered for a productive transit corridor where service suffers from travel time delays due to traffic congestion.

- *Expanded bus routes and service in South Bend and Elkhart*

  Description of Potential Service: Existing bus service in the South Bend/Elkhart area is provided by two separate transit agencies, and there are plans to enhance the level of service within these systems as well as the connections between these two fixed-route systems.

- *Fixed bus route connecting Michigan City and LaPorte*

  Description of Potential Service: Fixed-route service in this portion of the region is limited to four buses providing circulation in Michigan City. Proposed bus service (the Prairie Schooner) would connect Michigan City and LaPorte, as well as with the major public university campus in the area, Purdue North Central. The service would provide a link between LaPorte and the NICTD commuter rail stations to the north and west.

- *Increased Demand Response Service throughout the region's rural areas*

  Description of Potential Service: The needs assessment for the region showed that there is a considerable amount of demand for rural transportation service that is not being met. The introduction of county-wide demand response service into LaPorte, St. Joseph, Marshall and Elkhart County above and beyond what the human service agencies are providing, as well as expanded service in the other counties will be instrumental in moving toward meeting demand.

4.2.3 Summary

Transit issues in Northwest Indiana are unique in that they face "Chicago-sized" needs but are drawing their funding from a considerably smaller population base. Taken by itself, the region would have a very high intensity of service when compared to other regions of 1 million to 1.2 million people. Therefore, the primary issue that faces public transportation is the lack of funding and the region as looked to the State for help. The lack of funding and the need for assistance from the State were corroborated by both the stakeholder interviews and the opinion poll conducted as part of the study. The region has a number of mechanisms in place to generate funding but economic struggles (especially in northern Lake and Porter Counties) have made it difficult to sustain existing services and implement new service. Both NICTD and the RBA have aggressive plans to accommodate transit needs through the expansion of the commuter rail system and increased regional and local bus service, but have not yet been able to increase local funding to support these plans.

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The table below illustrates the increases by type of service. It is assumed that in addition to the two commuter rail lines currently planned, a bus rapid transit facility (not defined), and 100-150% increases in the fixed route systems and rural transportation programs serving the region. Potential funding sources are summarized in Section 5. More detailed breakdown of costs is provided in Appendix D.

Cost Estimate for Northwest Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$3.7	$9.5	$8.2	$164.0	$335
Vanpool	n/a	$1.5			$27
Urban Bus	$26.8	$68.7	$39.9	$798.0	$2,034.6
Fixed Guideway	$32.7	$62.9	$60.6	$1,818.0	$2,950.2
Total	$63.2	$142.6	$108.7	$2,780.0	$5,346.8

In millions 2008 $ - no escalation.

4.3 Northeast Indiana

The Northeast Indiana region contains the following counties: Adams, Allen, Blackford, DeKalb, Grant, Huntington, Jay, LaGrange, Noble, Steuben, Wells, and Whitley. The 2007 population in this region was estimated at 744,800. This included 349,500 residents in the Fort Wayne Metropolitan Area and 68,800 residents in the Marion/Gas City Metropolitan Area. The table below summarizes some of the key statistics indicators for economic growth.

Population Growth 2000-2010	Unemployment 2006	Employment Growth (1996-2006)	Population Density Persons/sq. mi. (2007)
3.1%	5.3%	-2.2%	165

4.3.1 Regional Transit Demand Assessment

Several methods were used in this study to estimate transit demand in the region. The current (2007) transit demand estimates for the Northeast Indiana region range from 6,177,000 to 25,439,000 one-way trips annually, depending on the method used. In 2006, transit services in the region provided 2,200,000 one-way trips, which met between 9% and 36% of the estimated regional demand.

Areas with dense population, concentrated employment and roadway congestion exhibit the characteristics that generally support fixed-route transit service. In the Northeast Indiana region, the Fort Wayne and Marion/Gas City areas exhibit these characteristics.

Currently, Citilink provides bus service in the Fort Wayne area and Marion Area Transportation System provides bus service in Marion and Gas City. The Fort Wayne MPO 2030 Transportation Plan identifies several improvements to the Citilink bus system, including improvements in bus frequency and expansion of service to newly-developed areas. These improvements are generally consistent with the areas identified in this study as supportive of fixed-route transit service.

Outside the Fort Wayne and Marion urban areas, rural demand-response transit service is currently provided in Noble, Huntington, LaGrange, Steuben, DeKalb, Whitley, Wells, and Jay counties.

4.3.2 Potential Transit Implementation

The evolution of the urban systems in Indiana has led to several of them being undersized given the population in areas, like Fort Wayne. Many of these systems were much larger in the past before the influx of the automobile. Historically, these transit systems were heavily utilized by the labor force and service has declined with the loss of blue collar employment.

A similar evolution of the system occurred in Charleston, SC (one of the Fort Wayne Peer Systems) although for a different reason. Many Southeastern US transit systems were originally operated by power companies and were reduced in scope as the power companies relinquished control to public authorities. At the end of South Carolina Electric & Gas control of the Charleston Transit System, they made an agreement to endow the City with funding for a period of time as the City took control of the system. In 2002, that funding sunset and the City due to the lack of another funding mechanism, was forced to cut 60% of its service. Since then Charleston has enacted a dedicated sales tax that funds the transit system and is also used for roadway projects. As a result, their system is back up to 66 buses during peak service.

The primary issue for Fort Wayne is funding, because even in the current socio-economic situation the City could generate the ridership to warrant a larger more intensive transit system. Some cursory research shows that the peer cities have considerably larger fleets.

Table 3.3 – Peer System Fleet Comparison

System	Bus Fleet	Rail Fleet
Fort Wayne	40	0
Quad Cities	91	0
Little Rock	46	3
Charleston	66	0
Albuquerque	119	0

Continuing to keep in mind that sustainable funding is the core problem inhibiting expansion of transit systems, Fort Wayne could realize an order of magnitude difference in ridership just by increasing the frequency on existing routes. One of the key issues for these systems as they attempt to attract choice riders is that hourly headways on a route fails to provide the convenience necessary automobile owners to choose transit. Growth in the urban areas continues to move these regions closer to the densities and travel patterns more conducive to transit as a commute option and it will be critical to expand these systems to a level commensurate to the size of the jurisdictions they serve.

Highlights of the transit investments prescribed for the region to address unmet demand and to achieve the benefits included in the 14 points of PL 203 include the following. More detailed information about service improvement and project benefits is included in Appendix E.

- *Expansion of local bus service in existing Fort Wayne coverage area*

  Description of Potential Service: Existing bus service in the Fort Wayne region is provided by Citilink, which has plans to increase the level of service on existing routes as well as provide new connections to growing portions of the region. One key bus connection under consideration is a new service to the airport.

- *Downtown Fort Wayne*

  Description of Potential Service: The CitiLoop Trolley is currently operated on weekdays during the summer to provide circulation for lunchtime traffic. This trolley service could be expanded to operate year round and during weekends, or could be upgraded to a fixed guideway system that connects many of the major tourist and employment destinations in the Central Business District and along the river(s).

  The Fort Wayne area has been perhaps the hardest hit metro region in the State for job losses in the manufacturing sector. Between 2001 and 2007, the Fort Wayne metro area lost nearly 11,000 manufacturing jobs and had among the slowest GDP growth in the nation (U.S. BEA). Nevertheless, like much of the State, the area has experienced four consecutive years of slight, but positive job growth.

  A fixed guideway investment, like streetcar, could serve as a catalyst to focus and speed up growth in the downtown area.

- *Increased Demand Response Service throughout the region's rural areas*

  Description of Potential Service: The needs assessment for the region showed that there is a considerable amount of demand for rural transportation service that is not being met. The introduction of county-wide demand response service into Adams County (above and beyond what the human service agencies are providing), as well as expanded service in the other counties will be instrumental in moving toward meeting demand.

4.3.3 Summary

For a metropolitan area of nearly 350,000, transit in Fort Wayne needs to alter the public view that transit is more of a public service than a commute option, which is supported by the stakeholder interviews and public opinion poll. Northeast Indiana had the highest percentage of people who had never tried transit, and the clear priority for transit in the region is to serve transit dependent populations. Focusing on convenience through increased frequency of service and the introduction express bus service and a vanpool program is critical to attract choice riders and ultimately achieve the benefits addressed by PL 203.

Introduction of new rural transportation into areas that currently are not served beyond human service transportation is vital to improving the mobility of those without options.

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The table below illustrates

the increases by type of service, which includes a 200-300% increase of two fixed route systems, the addition of fixed guideway service in Fort Wayne and substantial increases in rural transportation. Further breakdown of costs is included in Appendix F.

Cost Estimate for Northeast Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$2.3	$11.6	$10.1	$202.0	$406.8
Vanpool	n/a	$1.0	0		$18.0
Urban Bus	$10.1	$33.8	$13.9	$278.0	$886.4
Fixed Guideway	0	$4.5	$7.2	$144.0	$225.0
Total	$12.4	$50.9	$31.2	$624.0	$1,540.2

In millions 2008 $ - no escalation.

4.4 West Central Indiana

The West Central Indiana region contains the following counties: Benton, Carroll, Clay, Clinton, Fountain, Howard, Montgomery, Owen, Parke, Putnam, Tippecanoe, Tipton, Vermillion, Vigo, Warren, and White. The 2007 population in this region was estimated at 637,700. This regional total included 163,400 in the Lafayette/West Lafayette Metropolitan Area, 104,900 in the Terre Haute Metropolitan Area and 83,800 in the Kokomo Metropolitan Area. The table below summarizes some of the key statistics indicators for economic growth.

Population Growth 2000-2010	Unemployment 2006	Employment Growth (1996-2006)	Population Density Persons/sq. mi. (2007)
3.2%	5.2%	-2.3%	101

4.4.1 Regional Transit Demand Assessment

Several methods were used in this study to estimate transit demand in the region. The current (2007) transit demand estimates for the West Central Indiana region range from 5,372,000 to 19,668,000 one-way trips annually, depending on the method used. In 2006, transit services in the region provided 4,739,000 one-way trips, which met between 24% and 88% of the estimated regional demand.

Areas with dense population, concentrated employment and roadway congestion exhibit the characteristics that generally support fixed-route transit service. In West Central Indiana, fixed-route transit service is most viable in the immediate vicinity of the three metropolitan areas of Lafayette/West Lafayette, Terre Haute and Kokomo.

Bus service is currently provided in Lafayette and West Lafayette by City Bus, and in Terre Haute by the Terre Haute Transit Utility (Terre Haute City Bus). The Kokomo area does not have a fixed route bus system, but is served by a demand-response service called First City Rider. City Bus (Lafayette) has planned service expansions in developing portions of the Lafayette area, including potential express

routes. MPO plans in Terre Haute call for enhancements to the existing bus system, such as increased service frequency or extended service hours. The Kokomo MPO Long Range Plan calls for continued funding of demand-response services in that area. These improvements are generally consistent with the findings of this study—it should be noted, however, that the Kokomo area does possess characteristics that might make the introduction of fixed-route transit service feasible if the local area determines it to be desirable.

Although the West Central Indiana region has a relatively low level of transit demand compared to other regions in the state, it has the highest percentage of demand met by existing service, 24% to 88%. Much of this can be attributed to the high student population of Purdue and the robust transit service offered in the Lafayette/West Lafayette area, which currently has service levels that exceed a 2% transit mode share.

Relatively few areas in the West Central region have rural demand-response service available currently. This service is available in the towns of Brookston, Rossville, Boswell, Clarks Hill, Hillsboro, and Waveland; and in White, Clinton, Vigo, Howard and Owen counties.

4.4.2 Potential Transit Implementation based on Peer Systems

In addition to expansion of the transit service within the urbanized areas, the West Central Indiana should increase service to the rural areas of the region. Similar to the Southwest Region, the West Central region has more counties without public transportation than those that do. There are a number of communities with services but Clinton and White Counties are the only two with public transit service above and beyond those provided by human service agencies.

Highlights of the transit investments prescribed for the region to address unmet demand and to achieve the benefits included in the 14 points of PL 203 include the following. More detailed information about service improvements and benefits is included in Appendix F.

- *Lafayette/West Lafayette & Terre Haute bus service expansions*

  Description of Potential Service: There are opportunities for expansion of the coverage area and service levels for the existing bus systems in Lafayette and Terre Haute. Each of these systems serves large university student populations as well as the general public, which allows for potentially higher levels of ridership. A key focus should be to expand the hours and frequency of service.

- *Increased Demand Response Service throughout the region's rural areas*

  Description of Potential Service: The needs assessment for the region showed that there is a considerable amount of demand for rural transportation service that is not being met. The introduction of county-wide demand response service into Benton, Warren, Fountain, Vermillion, Clay, Parke, Montgomery, Putnam, Carroll, and Tipton Counties above and beyond what the human service agencies are providing, as well as expanded service in the other counties will be instrumental in moving toward

meeting demand. A key focus for expanded service should be to provide transportation between communities which was identified by stakeholders as a critical need.

- *Introduction of fixed-route service in Kokomo*

  Description of Potential Service: Kokomo currently has demand-response service in its service area, but could increase ridership by introducing fixed-route bus service serving key employment, retail and healthcare locations. The City has considered the introduction of fixed route in the past but has chosen to continue demand response service.

- *Vanpool program*

  Description of Potential Service: In the cost estimate for the implementation of transit in Section 5, the cost of regional vanpool programs have been included for all of the regions in the State. It is culled out here, because the West Central region has a number of major employers (like Purdue) which could benefit from vanpooling in terms of attracting choice riders.

4.4.3 Summary

Statistically, West Central Indiana is meeting the highest percentage of demand according to the needs assessment, which can be attributed to the captive ridership typically served in university communities. Stakeholders believe that the university communities of Terre Haute and Lafayette support transit because of the perceived environmental benefits which is supported by the findings in the public opinion poll. According to poll results, the residents are more sensitive to fuel prices by virtue of having the lowest threshold of any region before considering alternative modes of travel ($2.73). Future expansion should take advantage of the critical mass of trip demand from the university population to create services that also cater to commutes to other employment centers.

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The table below illustrates the increases by type of service. Service expansion includes 100-150% increases in level of service for each of the bus systems and additional of rural services. A summary of potential funding sources is included in Section 5. A more detailed breakdown of costs is provided in Appendix F.

Cost Estimate for West Central Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$0.54	$2.4	$2.9	$58.0	$101.2
Vanpool	n/a	$0.75	0		$13.5
Urban Bus	$10.6	$26.4	$16.4	$328.0	$803.2
Fixed Guideway	0	0	0	0	0
Total	$11.1	$29.6	$19.3	$386.0	$917.9

In millions 2008 $ - no escalation.

4.5 Southeast Indiana

The Southeast Indiana Region consists of the counties of Bartholomew, Brown, Clark, Dearborn, Decatur, Fayette, Floyd, Franklin, Harrison, Henry, Jackson, Jefferson, Jennings, Ohio, Randolph, Ripley, Rush, Scott, Switzerland, Union, Washington and Wayne. Total 2007 population in this region was 789,100. This includes 178,100 in the Indiana portion of the Louisville Metropolitan Area, 74,800 in the Columbus Metropolitan Area, 68,300 in the Richmond Metropolitan Area, and 49,800 in the Indiana portion of the Cincinnati Metropolitan Area. The table below summarizes some of the key statistics indicators for economic growth.

Population Growth 2000-2010	Unemployment 2006	Employment Growth (1996-2006)	Population Density Persons/sq. mi. (2007)
3.4%	5.2%	5.0%	105

4.5.1 Regional Transit Demand Assessment

Several methods were used in this study to estimate transit demand in the region. Depending on the method used, demand for transit service in the Southeast Indiana Region was estimated to be between 6,660,000 and 25,687,000 annual one-way trips in 2007. Transit providers in the region collectively served approximately 1,416,000 one-way trips in 2006, which met between 6% and 21% of the estimated regional demand.

Areas with dense population, concentrated employment and roadway congestion exhibit the characteristics that generally support fixed-route transit service. In the Southeast Indiana region, the areas likely to sustain this type of service are southern and central Clark County, Floyd County, central Harrison County (Corydon area), eastern Dearborn County, and the Columbus and Richmond areas.

In the Louisville area, the Transit Authority of River City (TARC) currently provides bus service within the city limits of New Albany, Clarksville, and Jeffersonville, including three express bus routes to downtown Louisville. The 2030 Regional Transportation Plan of the Louisville MPO calls for transit service to be maintained and enhanced in these areas. It also defines "advanced transit" corridors connecting Clarksville and New Albany with Louisville. The MPO plan does not address expansion of fixed-route service to new areas that might support it, such as Sellersburg, Charlestown, or Corydon.

The City of Columbus and the City of Richmond both have small fixed-route bus systems that provide limited fixed-route service in the areas generally corresponding to the transit supportive areas identified in this study. The Columbus MPO Regional 2035 Transportation Plan outlines several potential improvements to service, including relocation of transfer points, extended hours, improved frequency and service to the Edinburgh Outlet Mall. A long range plan was not identified for Richmond, but this service should also focus on improving service within the existing service area.

There is currently no fixed-route transit service in Dearborn County, but the Southeastern Indiana Regional Planning Commission (SIRPC) provides both demand-response and point-deviation service within the county. The Cincinnati MPO 2030 transportation plan identifies bus service between Lawrenceburg/Aurora and Cincinnati as a future project, as well as the preservation of rail right of way between Lawrenceburg and Cincinnati for possible future rail transit.

Outside the urban areas, rural demand-response service is currently provided in the cities of New Castle and Seymour and in Randolph, Wayne, Union, Fayette, Franklin, Decatur, Ripley, Dearborn, Ohio, Switzerland, Jefferson, Scott, Washington, and Harrison counties.

4.5.2 Potential Transit Implementation

The focus of Southeastern Indiana transit is on serving the major trip pattern between the major cities of Cincinnati and Louisville from their suburban areas in Indiana. In the case of Louisville, there are congested bridge crossings which present an opportunity to attract choice riders if some competitive advantage in travel time can be designed into express bus service. There are examples of low cost methods like using contra-flow lanes[19] on bridges during peak traffic times.

There are also a number of counties in the region that need public transportation systems to augment existing human service transportation. Highlights of the transit investments prescribed for the region to address unmet demand and to achieve the benefits included in the 14 points of PL 203 include the following. More detailed information about service and projected benefits is provided in Appendix G.

- *Improved express bus connections to Louisville and Cincinnati*

  Description of Potential Service: Regional plans exist for upgrading services from Indiana counties within the metropolitan regions of Louisville and Cincinnati. These services are affected by traffic congestion on the bridges into Kentucky.

- *Columbus and Richmond bus service expansions*

  Description of Potential Service: Expansion of the frequency and coverage of the small fixed-route service will meet additional transit needs identified for the region. Currently, Columbus operates four fixed routes, while Richmond operates five.

- *Increased Demand Response Service throughout the region's rural areas*

  Description of Potential Service: The needs assessment for the region showed that there is a considerable amount of demand for rural transportation service that is not being met. The introduction of county-wide demand response service into Jackson County above and beyond what the human service agencies are providing, as well as expanded service in the other counties will be instrumental in moving toward meeting demand.

  Expansion of rural service should also include intercity service for the general public as this was a critical need cited by stakeholders. This

service would connect smaller towns to cities outside of the region as demand dictates.

4.5.3 Stakeholder/Poll Regional Summary

Southeastern Indiana presents a broad mix of transit challenges and issues that are similar to the other regions studied. Similar to the Northwest region, there major portions of the Southeast region that serve as suburban bedroom communities for metropolitan areas outside the State, Louisville and Cincinnati. Like the Northeast and Southwest regions, there are large rural areas without public transit service and there are two small metropolitan areas with unmet needs similar to those in Evansville, Terre Haute and Elkhart. Stakeholders in Southeast Indiana cited the economic and environmental benefits as the most important aspects of transit. The service in the region is considered to be operated well, with the primary criticism of transit being that the service is not convenient to the user and therefore is not well utilized.

Stakeholders felt that there is demand for more transit options especially for service to and from Louisville and Cincinnati as well as the rural portions. There is interest also in improving demand response service in Floyd and Clark Counties, citing that the service provided by TARC is not sufficient. Other areas in need of service include New Albany, Walesboro, West Hill, Edinburg and Batesville. Stakeholders saw the need for scheduled service from multiple locations to and from Indianapolis, including New Castle and Seymour.

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The table below illustrates the increases by type of service. Cost estimates assume that a 100-150% in the fixed route systems and 200% increase in rural transportation service will be implemented. Potential funding sources are summarized in Section 5. A more detailed breakdown of costs is included in Appendix G.

Cost Estimate for Southeast Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$2.9	$6.2	$6.0	$120.0	$231.6
Vanpool	n/a	$0.5			$9.0
Urban Bus	$4.7	$20.3	$16.4	$328.0	$693.4
Fixed Guideway	0	0	0		
Total	$7.7	$27.0	$22.4	$448.0	$934.0

In millions 2008 $ - no escalation.

4.6 Southwest Indiana

The Southwest Indiana Region consists of the counties of Crawford, Daviess, Dubois, Gibson, Greene, Knox, Lawrence, Martin, Orange, Perry, Pike, Posey, Spencer, Sullivan, Vanderburgh and Warrick. Total 2007 population in this region was 592,100. This included 231,500 in the Evansville Metropolitan Area. The table below summarizes some of the key statistics indicators for economic growth.

Population Growth 2000-2010	Unemployment 2006	Employment Growth (1996-2006)	Population Density Persons/sq. mi. (2007)
1.9%	4.9%	4.3%	91

4.6.1 Regional Transit Demand Assessment

Several methods were used in this study to estimate transit demand in the region. Depending on the method used, demand for transit service in the Southwest Indiana Region was estimated to be between 4,538,000 and 20,231,000 annual one-way trips in 2007. Transit providers in the region served approximately 1,973,000 one-way trips in 2006, which met between 10% and 43% of the regional demand.

Areas with dense population, concentrated employment and roadway congestion exhibit the characteristics that generally support fixed-route transit service. In Southwest Indiana, the Evansville area (Vanderburgh County and southwestern Warrick County) is the most likely to support fixed-route transit service.

Currently, the Metropolitan Evansville Transit System (METS) provides bus service in the Evansville area and Henderson Area Rapid Transit (HART) provides service within the City of Henderson, Kentucky, across the Ohio River. The Evansville MPO 2035 Regional Transportation Plan identifies several route and service improvements to the bus system, including the potential implementation of selected express routes. These improvements are generally consistent with the areas identified in this study to be supportive of fixed-route transit service.

Outside the Evansville urban area, rural demand-response transit service is currently provided in the cities of Bedford, Huntingburg, Mitchell, and Washington; and in Knox, Orange, Lawrence, Crawford, Daviess, Greene, Gibson, Dubois, Crawford, , Warrick, Martin, Pike, and Sullivan counties.

4.6.2 Potential Transit Implementation based on Peer Systems

Rural transportation needs are more critical in the Southwest region of Indiana than elsewhere in the State. Three counties in the region do not have public systems and the region is the most remote in terms of accessing services in other cities besides Evansville. In addition to expanding commuter-based service within Evansville, the region should emphasize increased rural services in those areas with a system and the introduction of new service in those that do not.

Highlights of the transit investments prescribed for the region to address unmet demand and to achieve the benefits included in the 14 points of PL 203 include the following.

- *Expansion of local bus service in Evansville coverage area*

  Description of Potential Service: Existing bus service in the Evansville region is provided by Metropolitan Evansville Transit System (METS), which has plans to increase the level of service on existing routes as well as provide new connections to growing portions of the region. Key bus connections under consideration are new service to the airport and express bus service linking Henderson, Newburgh and Evansville.

- *Increased Demand Response Service throughout the region's rural areas*

  Description of Potential Service: The needs assessment for the region showed that there is a considerable amount of demand for rural transportation service that is not being met. The introduction of county-wide demand response service into Posey, Perry and Spencer Counties (above and beyond what the human service agencies are providing), as well as expanded service in the other counties will be instrumental in moving toward meeting demand.

  Expansion of rural service should also include intercity service for the general public as this was a critical need cited by stakeholders. This service would connect smaller towns to Evansville and other cities outside of the region as demand dictates.

4.6.3 Summary

Southwest Indiana has the lowest propensity for transit among the regions of the State and, according to the poll; the highest percentage of people who felt that road expansion should have a higher priority than transit expansion. Still, there are localized opportunities for transit improvements to attract new riders and the introduction of new rural transportation into the several counties that currently have partial systems or are not served beyond human service transportation should be a top priority. It is possible to design the rural service to accommodate intercity travel which is a need cited by those in the region.

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The table below illustrates the increases by type of service. Cost estimates assume that a 100-150% in the Evansville fixed route systems and 200% increase in rural transportation service will be implemented. Potential funding sources are summarized in Section 5. There is a more detailed breakdown of costs in Appendix H.

Cost Estimate for Southwest Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$1.2	$12.0	$12.8	$256.0	$472.0
Vanpool		$1.0	0		$18.0
Urban Bus	$7.9	$16.0	$13.5	$270.0	$558.0
Fixed Guideway		0	0		0
Total	$9.1	$29.0	$26.3	$526.0	$1048.0

In millions 2008 $ - no escalation.

5.0 Financial Considerations

5.1 Total Cost of Transit Investments

An aggregation of the total cost estimate of the transit implementation included in the regional Mass Transit Studies is summarized in the table below. This is an order of magnitude of the expenditures required over the next 30 years to obtain the benefits realized by the peer systems.

Based on reaching the 0.8% rural and 1.5% urban mode share targets, investments include:

- **Central Indiana -** in addition to the NE corridor, one other similar rapid transit corridor (not defined), two commuter rail lines (Muncie/Anderson and Bloomington), targeted service to downtown Indianapolis, and a 100-150% increase in the fixed route systems that serve the region.
- **Northwest Indiana -** in addition to the two commuter rail lines currently planned, a bus rapid transit facility (not defined), and a 100-150% increase in the fixed route systems and rural transportation programs that service the region.
- **Northeast Indiana -** assumes expansion of two fixed route systems, the addition of targeted fixed-guideway service in downtown Fort Wayne, and substantial increases in rural transportation.
- **West Central, Southeast and Southwest Indiana -** assumes a 100-150% increase in level of service for each of the bus systems, and a 100-200% increase in rural services.
- **Statewide** - The addition of vanpooling programs are assumed throughout the State to support workforce transportation.

Cost Estimate for Statewide Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost**	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$13.7	$55.5	$48.7	$974	$1,973.0
Vanpool	n/a	$6.3		0	$113.0
Urban Bus	$116.2	$309.1	$159.8	$3,196	$8,760.0
Fixed Guideway	$32.7	$95.1	$166.9	$3,944	$5,656.0
Total	$162.6*	$466.0	$385.4	$8,114	$16,500.0

In millions 2008 $ - no escalation.
*from 2006 INDOT Transit Annual Report
**

In effect, the cost estimate is an order of magnitude representation of the capital expenditure ($8.1B) required for the transit systems in Indiana to achieve the benefits of transit realized by the other systems. This system would require more than $460M per

year for operating and maintenance cost. If the urban and rural ridership targets are achieved, the operating cost/trip would be about $4.21/trip as compared to $4.85 today. The decrease in operating cost per trip is attributable to providing more of those trips on rail systems, which will not be attainable without the substantial capital outlay associated with the implementation of the rail facilities. The study assumes that these investments will be targeted such that they will be at least as productive as existing transit service and farebox recovery would remain at or about 23% of operating costs or about $105.8M.

On the capital side, federal participation is expected to be no more than 25-40% based on historical data, which means that $4.9 to $6.1B must come from state and local sources. Given the changing political landscape and upcoming reauthorization of the federal transportation funding program, it is very difficult to predict the level of future federal participation in transit projects. Another issue to consider is that the annualized capital cost does not assume any expenses due to debt service. The cost to finance over $350M per year will be significant; however, it could not be projected since the funding levels from federal and other sources will vary from region to region and project to project.

5.2 Funding Issues

Transit systems in Indiana utilize funding from a myriad of sources including the fares that their services generate. The mix of sources varies greatly from system to system based on the type of service they provide, the size of the region they serve and their level of farebox recovery. Currently, the funding programs for transit statewide are fully leveraging federal formula funds and the state as good track record of utilizing federal discretionary transportation funds over the years. There have also been examples of projects being funded by flexed highway funds, including the Congestion Mitigation/Air Quality (CMAQ) funded suburban express bus service currently provided by IndyGo.

There are three primary funding issues that have a significant effect on transit in Indiana that were identified by the study:

1. A Brookings Institute report (*The Road Less Traveled*, December 2008) indicates that a national trend of less driving threatens to decrease the federal motor fuel tax receipts at the national level, which means fewer federal dollars being available for both highway and transit programs. As a result, competition for capital funds from the Federal Transit Administration among transit systems nationally will continue to increase. Federal participation in operating expenses for transit systems will most likely decrease as well. In fact, the report tabs Indianapolis with the 2nd largest decrease in vehicle mile traveled nationally.
2. Recent property tax relief strategies in Indiana have the potential to significantly impact revenue sources on which the public transit corporations (PTCs) are heavily dependent. Thirty-five to 43 percent of their operating budgets are dependent on local property taxes. Other city-owned and operated systems that do not have dedicated source of funding will also be severely affected by these changes.
3. It has been an initiative of the State to pursue, where possible, public/private partnerships when financing. Because transit systems do not generate enough

revenue to pay for their operating costs, it is very difficult to secure private investment in transit projects. More information is provided in the response to PL 203 Point # 4 in Section 1 of the report.

These issues point to a growing trend that more of the burden for transit costs must be borne by local, regional or state sources. It will be very difficult politically to increase State funding for transit because the benefits of most transit investments are localized. The following table is provided to show where the State of Indiana ranks among other states in terms of per capita state spending on public transportation. In 2006, Indiana ranked 15th in population and 19th nationally in per capita spending ($7.40). The national average for per capita spending is $36.34 (not including Washington, DC), however, the median is $6.20. There are 12 states that exceed the national average, and given their level of investment pull the average up significantly. There are very few correlated trends that can be inferred from the data about state spending programs because they have all evolved differently. Generally speaking, the Indiana program is in line with states of similar size and density.

Indiana ranks 17th among states in population density and state operated programs have only occurred in states that have higher population densities, primarily in the geographically smaller and denser northeastern states or in California, where the statewide program is focused on commuter transportation between the major metropolitan areas. North Carolina and Virginia have slightly higher population densities as Indiana and only operate rail services between Raleigh-Charlotte and Fredericksburg-Washington, DC, respectively.

National Summary of State Public Transportation Expenditures

State	Population	Transit Spending (2006)	Per Capita Transit Spending	Pop. Density	State Operated Transit
Massachusetts	6,437,193	$1,217,790,879	$189.2	822.7	Y
Maryland	5,615,727	$811,485,000	$144.5	574.8	N
New York	19,306,183	$2,573,088,000	$133.3	408.7	N
New Jersey	8,724,560	$847,052,000	$97.1	1,171.1	Y
Delaware	853,476	$67,180,200	$78.7	442.6	Y
Pennsylvania	12,440,621	$822,826,000	$66.1	277.4	N
Connecticut	3,504,809	$225,605,428	$64.4	722.9	Y
California	36,457,549	$2,208,814,477	$60.6	234.4	Y
Minnesota	5,167,101	$295,853,000	$57.3	65.3	N
Rhode Island	1,067,610	$47,182,752	$44.2	1,012.30	Y
Illinois	12,831,970	$489,200,000	$38.1	231.2	N
Virginia	7,642,884	$267,556,000	$35.0	194.8	Y
Wisconsin	5,556,506	$113,411,541	$20.4	103.1	N
Michigan	10,095,643	$200,984,058	$19.9	177.3	N
Florida	18,089,888	$176,391,501	$9.8	338.4	N

State	Population	Transit Spending (2006)	Per Capita Transit Spending	Pop. Density	State Operated Transit
Oregon	3,700,758	$35,983,883	$9.7	39.0	N
Vermont	623,908	$5,746,599	$9.2	67.2	N
North Carolina	8,856,505	$66,466,447	$7.5	186.0	Y
Indiana*	6,313,520	$46,486,458	$7.4	176.9	N
Tennessee	6,038,803	$38,050,000	$6.3	149.4	N
Washington	6,395,798	$39,338,803	$6.2	97.2	N
Colorado	4,753,377	$21,800,000	$4.6	46.9	N
Iowa	2,982,085	$10,842,863	$3.6	53.5	N
Arizona	6,166,318	$18,042,000	$2.9	55.8	N
Kansas	2,764,075	$6,000,000	$2.2	33.9	N
South Carolina	4,321,249	$7,400,004	$1.7	146.4	N
Ohio	11,478,006	$16,300,000	$1.4	280.0	N
Louisiana	4,287,768	$4,962,500	$1.2	98.6	N
Texas	23,507,783	$28,741,067	$1.2	91.3	N
Missouri	5,842,713	$6,800,000	$1.2	85.3	N
West Virginia	1,818,470	$2,258,342	$1.2	75.3	N
Arkansas	2,810,872	$3,277,637	$1.2	54.4	N
Oklahoma	3,579,212	$3,250,000	$0.9	52.7	N
Mississippi	2,910,540	$1,600,000	$0.6	62.2	N
Georgia	9,363,941	$4,695,983	$0.5	164.8	N
New Hampshire	1,314,895	$588,000	$0.5	146.7	N
Kentucky	4,206,074	$1,700,000	$0.4	106.8	N
Maine	1,321,574	$505,000	$0.4	42.7	N
Hawaii*	1,285,498	$ -	$ -	199.8	N
Alabama*	4,599,030	$ -	$ -	91.2	N

Remaining states are Utah, Nevada, Nebraska, Idaho, New Mexico, South Dakota, North Dakota, Montana, Wyoming, and Alaska; none of which have state-operated programs or higher per capita state spending than Indiana.

Source: AASHTO, Survey of State Funding for Public Transportation, 2007 Final Report.

* The AASHTO study actually under reports the level of state assistance for public transportation in Indiana, the table reflects the actual funding levels from the INDOT 2006 Indiana Public Transit Annual Report

Currently, the State of Indiana supports transit primarily through a set of programs that are funded through State sales tax proceeds (Public Mass Transportation Fund, Commuter Rail Investment Fund, etc.). These funds are used to match local and federal funding of transit systems in Indiana's cities and metropolitan regions, and

overall the State provides 22% of the cost of operating transit service in the State on an annual basis. An increase in state participation may serve as a catalyst for more local participation, especially if the State continues or intensifies its matching requirements from the local/regional level. For Indiana to maintain its percentage of funding for the expanded program outlined in the report, the PMTF or state funding in general, would have to increase threefold.

This additional state funding could be used to target three areas:

- Expanded rural transit program – Capital and operating funding to support local programs and provide statewide coverage.
- Expanded urban transit program – Operating fund support for expanding the levels of bus service in urban areas throughout the State. Design of service expansion should target choice riders.
- Capital infrastructure fund – State matching funds for major rail and bus infrastructure. Even though this level of funding would represent a very modest capital program, it could be useful to region's implementing transit through the New Starts program by strengthening their requisite financial plan.

If Indiana chooses to reach the service levels outlined in this study, an increase in funding must also come from the local or regional level. Transit is most successful in areas with dedicated funding, where the benefits and more importantly, the usage (ridership) are focused.

In addition to funding programs, a key theme from the peer cities research is the importance of proactively making the connection between a transit investment and its benefits. While the potential for positive social, economic and environmental effects from a transit investment are easy to identify, the actual impacts will be dependent not only on system usage but also the ability of the State or region to link transit service to other planning efforts around issues such as job access, economic development, and sustainability. This places the emphasis on regional entities, either MPOs or regional transit/bus authorities, to take the lead in developing funding programs to support transit within their specific regions. These agencies are uniquely situated to continue the development of transit within their respective regions and their existing long range plans were major sources of information on which this study was based.

5.3 Review of Funding Sources

The following table summarizes the screening of potential funding sources for transit in Indiana. It reflects the findings of an analysis of a broad range of funding mechanisms, some of which are currently in use in Indiana to support transit projects, some of which are in use in Indiana—but not for transit projects, and some of which are not currently in use in Indiana, but are used elsewhere in the United States for public transportation. In conducting the analysis, the consultants relied on variety of sources, including analyses conducted otherwise for and by INDOT. The screening is intended to augment the research already completed by the State Legislature (see www.in.gov/legislative.index.html) on potential funding mechanisms.

Following are brief explanations of the information presented in the table, organized according to the table headings.

5.3.1 Source

This column lists the mechanisms under consideration, ranging from federal grants to local tax-related sources. As noted in the table heading, the sources are sorted according to their potential yield (as shown in column 3).

5.3.2 Level of Collection

For most funding sources, the responsibility for collecting and distributing the resulting revenue lies either with state agencies (e.g., Department of Revenue, BMV) or local governments (e.g., cities, counties, special districts). In some cases, sources can be administered by either. The second column in the table shows the level of government that is most likely to administer the various sources, either state, local, or both.

5.3.3 Yield

Depending on their type (mechanism), context (available tax base), and applicability (to transit capital and/or O&M), the sources cited in the table can yield significantly different levels of revenue. The third column in the table provides a simple measure of relative revenue-generating capacity from each source, taking into account type, context, and applicability: High, Medium, and Low.

Sources rated "High" are those that can potentially deliver all or a significant portion (greater than 50%) of total program capital and/or O&M needs. "High" sources can be used to underpin major rail or bus expansion projects, for example. Depending on location and collection base, "High" sources can generate $10 million a year or more. A new sale s tax is generally considered one of the "highest"-yielding sources available to transit proponents.

"Medium"-rated sources are generally not significant enough to carry major projects or programs alone, but can still provide significant resources when coupled with one or more other sources of similar yield. "Medium" sources are those that potentially yield $1-10 million annually. A local income tax collected at the regional level is rated "Medium," while a similar tax collected at the state level would be rated "High."

Sources rated "Low" are usually minor – yielding less than $1 million annually. These sources can contribute to specific small elements of a capital project, or help offset a specific type operations or maintenance expense, but in general are not significant when assembling a regional or statewide funding strategy for transit. "Low"-ranked sources are frequently included to create a more equitable benefit/burden relationship among system users and taxpayers, or at least to improve the perception of fairness among all participants. Note that most of the current FTA formula grant programs are rated as "Low" as their overall yield is limited and that entire yield is currently claimed for current projects and programs.

Note that these measures of revenue yield do not take into account the degree of difficulty associated with actually tapping a given source for transit use. For instance, a state motor fuel tax can generate a very high level of revenue, none of which is currently directed toward transit. So, while its yield is shown in the table as "High," a major change in the political and legal landscape would be necessary to redirect existing fuel tax revenue or increase the tax rate and dedicate the incremental revenue to transit.

5.3.4 In Use

The fourth column in the table shows if the potential funding source is currently used in Indiana, irrespective of whether or not it is used to support public transportation. Presumably, by virtue of their familiarity at either the state or local level, those funding mechanisms that are in use have a higher probability of continued use or adaptation for future use on transit projects.

5.3.5 Currently Used for Transit?

This column simply shows whether or not the potential funding sources are currently applied to transit projects in Indiana.

5.3.6 Applicability by Use

Columns 6, 7, and 8 show how each of the potential funding sources are typically applied on public transportation projects. The potential applications listed are operations and maintenance (O&M), pay-as-you-go capital expenditures (Pay/Go), or capital expenditures supported by bond issuance (Bonds). Note that for sources not currently used in Indiana, it is difficult to assess how such sources might be applied, in which cases the tables indicates "Unknown."

5.3.7 Applicability by Project Type

The analysis in this report generally discusses four types of public transportation projects: Rural Transportation; Ridesharing/Vanpool; Fixed Route and Paratransit; and Fixed Guideway. The table shows which types of projects are typically funded through the various sources, with the project types listed respectively as Levels 1 through 4.

Source	Level of Collection (State/Local)	Yield (High, Medium, Low)	In Use (Yes/No)	Currently Used for Transit (Yes/No)	Applicability by Use			Applicability by Project Type			
					O&M	Capital (Pay/Go)	Capital (Bonds)	Level I Rural Trans-portation	Level 2 Ridesharing/ Vanpool	Level 3 Fixed Route and Paratransit	Level 4 Fixed Guideway
FTA Section 5309 - Capital Discretionary Program (New Starts)	State	High	Yes	Yes	No	Yes	No	No	No	Yes	Yes
State Sales Tax	State	High	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State Motor Fuel Tax	State	High	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gaming Taxes	State	Medium	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Local Income Tax	Local	Medium	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Local Option Highway User Tax (Wheel Tax + Excise Surtax)	Local	Medium	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Local Property Tax Increment	Local	Medium	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Local Sales Tax	Local	Medium	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle emissions tax	State	Medium	No	No	Yes	Yes	Unknown	Yes	Yes	Yes	Yes
Vehicle Mileage Tax	State	Medium	No	No	Yes	Yes	Unknown	Yes	Yes	Yes	Yes
Auto Rental Excise Tax	Both	Medium/Low	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Congestion Pricing	Both	Medium/Low	No	No	Yes	Yes	Unknown	No	No	Yes	Yes
FTA-FHWA SAFETEA-LU Congestion Mitigation and Air Quality Program (CMAQ)	Local	Medium/Low	Yes	Yes	Yes	Yes	No	No	(Yes)	Yes	(Yes)
Local Income Tax Increment	Local	Medium/Low	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Local Sales Tax Increment	Local	Medium/Low	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Local Vehicle Registration Fee/Tax	Local	Medium/Low	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Public Private Partnerships (P3)	Both	Medium/Low	Yes	No	Yes	No	Yes	No	No	No	Yes
FTA Section 5307 - Urbanized Area Formula Program	Local	Low	Yes	Yes	(Yes)	Yes	No	No	No	Yes	Yes
FTA Section 5310 - Capital Grants Program for Elderly Persons and Persons with Disabilities	Local	Low	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No

Source	Level of Collection (State/Local)	Yield (High, Medium, Low)	In Use (Yes/No)	Currently Used for Transit (Yes/No)	Applicability by Use			Applicability by Project Type			
					O&M	Capital (Pay/Go)	Capital (Bonds)	Level 1 Rural Trans-portation	Level 2 Ridesharing/ Vanpool	Level 3 Fixed Route and Paratransit	Level 4 Fixed Guideway
FTA Section 5311 - Rural Formula Funds	Local	Low	Yes	Yes	(Yes)	Yes	No	Yes	No	No	No
FTA Section 5311(b) - Rural Transit Assistance Program (RTAP)	Local	Low	Yes	Yes	Yes	Yes	No	Yes	No	No	No
FTA Section 5311(f) - Intercity Operating, Capital, Planning, and Marketing Assistance	State	Low	Yes	Yes	Yes	Yes	No	No	No	No	Yes
FTA Section 5316 – Job Access/Reverse Commute (JARC)	Local	Low	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No
FTA Section 5317 – New Freedom	Local	Low	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No
Local Parking Impact Fee	Local	Low	No	No	No	Yes	No	Yes	Yes	Yes	Yes
Petroleum Severance	State	Low	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Right-of-way leasing (typically, for utilities)	Local	Low	No	No	Yes	No	No	No	No	No	Yes
In-vehicle advertising	Local	Very Low	No	No	Yes	No	No	Yes	Yes	Yes	Yes

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- *Iowa Quad Cities Transit Alternatives Analysis.* Bi-State Regional Commission. July 2006.
- *2035 Long-Range Transportation Plan.* Bi-State Regional Commission. March 2006.

Salt Lake City

- *Wasatch Front Urban Area Long Range Transportation Plan.* Wasatch Front Regional Council. December 2003.
- *Wasatch Front Development Trends.* Envision Utah. November 2007.
- *Wasatch Front TOD Study.* Envision Utah. January 2002.

St. Louis

- *Legacy 2035.* East-West Gateway Council of Governments. 2007.

Traverse City (MI)

- "Downtown Traverse City Annual Report." Traverse City DDA. 2006.
- "Progress Report on the Grand Vision." January 2008.
- *Benchmarks Northwest: Quality of Life Indicators and Community Assessment Tool.* Northwest Michigan Council of Governments. 2004.

- *Tourism Industry Analysis for Grand Traverse County*. Traverse City Convention and Visitors Bureau. September 2006.

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[1] City of Charlotte, N.C.

[2] The peak hour of the peak period refers to the one hour time period during the peak travel period that has the highest volume on the roadways and transit. It is the time of day with the worst congestion on the roadway.

[3] "The Connection Between Public Transit and Employment," Journal of the American Planning Association, Summer 1999

[4] "The Effect of Rail Transit on Property Values: A Summary of Studies," Parsons Brinckerhoff, February 2001

[5] Center for Transportation Excellence, http://www.cfte.org.

[6] National Highway Traffic Safety Administration, http://www.nhtsa.dot.gov/

[7] Center for Transportation Excellence, http://www.cfte.org

[8] "A Heavy Load: The Combined Housing and Transportation Burdens of Working Families," Center for Housing Policy, October 2006

[9] "Measuring the Success of Transit-Oriented Development: Retail Market Dynamics and Other Key Determinants," John Niles and Dick Nelson, 1999

[10] "The Lasting Legacy of New Economy Companies," *Property Futures*, Jones Lang LaSalle, Volume 1, 2001, 7-10.

[11] Center for Transportation Excellence, http://www.cfte.org.

[12] FastTracks TOD Status Report, 2007

[13] Center for Transportation Excellence, http://www.cfte.org.

[14] The Estimated Value of New Investment Adjacent to DART LRT Station: 1999-2005," University of North Texas, 2005

[15] On Track: Progress Toward Transit-Oriented Development in the Delaware Valley, 2007

[16] "A Heavy Load: The Combined Housing and Transportation Burdens of Working Families," Center for Housing Policy, October 2006

[17] Federal Highway Administration, http://www.fhwa.dot.gov/hep/flexfdtble.htm

[18] The cost and fleet information was taken from INDOT records. It is possible that these vehicles are also operated using human service transportation funding from other sources and the service statistics are not reported to INDOT. Based on the INDOT statistical information, $33,000 in operating cost per vehicle is less than what it would take to pay drivers to operate the vehicle for 12 hours per day which would cost 1.5 FTE at $10/hour plus 35% benefits = $42,000 and does not include fuel, maintenance and insurance.

[19] Contra-flow lanes utilize temporary barriers to partition lanes in the off-peak direction of a highway for transit use during peak periods of travel.

Appendix A
Indiana Mass Transit Studies
PL 203-2007

Indiana Department of Transportation
December 2008

Appendix A: Transit Benefits and Peer Systems Analysis

Assessing the broad range of benefits from transit service addresses several key components of PL 203-2007. Specifically, the public act directs that this report assess the following types of transit-related benefits:

- The need to use public transportation to mitigate traffic congestion
- Ways to address the demand for workforce transportation that are reliable and secure
- Relationship between land use and investment in public transportation
- Role that public transportation plays in:
  - promoting economic growth,
  - improving the environment, and
  - sustaining the quality of life
- Transit-oriented development
- Impact of mass transit on projected demographic patterns, including aged populations

Guided by these directives, a comprehensive study was undertaken to summarize existing U.S. research on the scale and type of transit impacts; to identify "peer cities" comparable to those in the State of Indiana that have successfully implemented transit; and to research the experience in these metropolitan areas that can be applied when analyzing potential investments in transit later on in the Study. This section presents the results of those three exercises, including comparative data for each of the Indiana communities and their peers as well as an overview of the key findings from the peer systems analysis.

The review of the benefits of transit and the application of this research to the "peer cities" each focus in on transit's potential as well as its limitations. In most cases, transportation is one of many factors influencing economic growth, demographic changes or land development. Transit should be viewed as one part of a broader effort toward addressing some of the factors listed above, and should be deliberated in context against the limitations that other transportation modes (i.e., roadways) have for addressing these issues.

Research also indicates that the benefits of a transit investment are intimately linked with the efficiency and usefulness of the service as a convenient, well-utilized transportation asset. For example, improvements in air pollution or roadway congestion are directly linked to capturing transit ridership that may otherwise use an automobile for a trip.

By focusing on different community types and modes of transportation, this Study identifies the range of potential benefits in different environments and for different project types. This

research is revisited when evaluating recommendations regarding potential transit investments in the individual regional transit plans.

A.1 Existing Research on Benefits of Transit

An emerging set of recent studies on mass transit have detailed the broad types of impacts and benefits. This research investigates both individual projects and broader national trends, and confirms that the impacts of transit go beyond traditional measures of mobility and accessibility. In particular the studies document transit's social; economic; environmental quality; quality of life; and land use and development impacts.

Based on a review of existing research and correlated with the legislative directives, the table below categorizes the major benefit categories and types for mass transit investments.

Benefit Categories and Types

Category	Benefit Type
Social/Demographic	Mobility/accessibility for key demographic groups
	Employment/workforce participation rates
Economic Growth	Urban efficiency & individual economy
	Retail sales
	Tourism & visitation
	Business development
	Employment & payroll increases
Environmental Quality	Air quality
	Water quality
	Noise pollution
Quality of Life	Roadway congestion
	Public health
	Transportation safety
Land Use & Development	Property value
	Adapted/intensified land-use patterns

What follows is a discussion of each benefit type, organized by the individual category. In each case, the impact is summarized, key documented findings are noted, and additional resources are provided for further reference.

A.1.1 Social/Demographic Benefits

<u>Mobility & accessibility for key demographic groups</u>

Summary of Impact(s): While mass transit systems are a broad public resource, transit services are known to have particular benefits for key demographic groups, including seniors, low-income persons and other households lacking private transportation options.

This is because transportation costs are a major component of household spending, and a particular burden on lower income households and seniors. As of

2000, the poorest quintile of U.S. population spent more than 36% of their monthly budget on travel (compared to 14% for the richest quintile).[1] This proportion has risen significantly in recent years. Public transportation provides lower cost mobility to such households, making them not only more likely to use transit, but also more likely to benefit most from its presence. The availability of reliable and safe transit service is often the only means for accessing employment, medical care, social services, or retail locations for these household types.

Official recognition of the heightened impacts of transit to these sensitive population groups was included in the most recent reauthorization of the federal transportation bill (SAFETEA-LU). The bill added a new requirement that metropolitan areas develop a Coordinated Public Transit Human Services Transportation Plan (Coordinated Plan) prior to any request for funding under key funding programs (including the Section 5316 Job-Access-Reverse Commute (JARC); Section 5317 New Freedom; and Section 5310 Special Needs of Elderly and Disabled Individuals). Coordinated Plans, which have been developed in Indiana, provide a vehicle for creating unified transit service that targets the needs of these populations. New regulations under these FTA programs allow agencies to use funding from other federal transportation programs (non-FTA) to meet matching fund requirements. Although there are significant urban programs under these funding categories, the transportation provided using these funds is especially critical to rural areas because it is very likely that it is the only type of transportation service provided.

Documentation of Impact(s): On a project-by-project basis, Environmental Impact Statements (EIS) and Environmental Assessments (EA) for major transit projects document the up-front impact of service to low-income and minority households, as well as aged populations.

At the regional level, the development of Coordinated Plans is providing new analytical information on the impacts of service on sensitive populations. Many metropolitan regions, including those in Indiana, are using these planning efforts to set goals for using transit to effectively link sensitive populations to employment centers, shopping centers and medical care.

Additional Resources:

- Surface Transportation Policy Project
- Coordinated Public Transit Human Services Transportation Plans (various)
- "A Heavy Load: The Combined Housing and Transportation Burdens of Working Families," Center for Housing Policy, October 2006

<u>Employment & workforce participation rates</u>

Summary of Impact(s): Mass transit systems provide connections between people and jobs, and most highly-utilized transit systems primarily serve work trips during the peak, high-congestion travel periods. Thus a key issue in planning for transit is providing access to work by linking job-rich areas of a metropolitan region to areas

where there is a deficit of work. Areas with a lack of jobs could include, for example, poor urban or rural areas which have suffered disinvestment, or suburban areas which are primarily "bedroom" communities.

In many areas, particularly those experiencing congestion, the effectiveness of a new transit service at providing job access can improve employment rates of workers looking for jobs, as well as the base of potential employees for employers. Indeed, a trend in many areas is for large private employers to work with a transit agency to sponsor service that targets the work schedules and residential locations of their employees.

Documentation of Impacts: Standard transit project planning typically involves the use of Census demographic data, state employment data and regional travel data to evaluate the needed links for improved job access between areas of a region. The direct impact of a transit service on regional or even localized employment rates is difficult to determine given the numerous intervening factors (education, training, etc.), but many regions maintain goals for using transit to link low-employment areas with jobs.

Some research studies have attempted to document that populations with better access to reliable transit service were able to remain in their jobs for longer periods of time than those without. A 1999 study of Atlanta showed that average annual employment levels decreased by approximately three weeks for every 0.5 kilometer from the nearest bus stop.[2] Similar research in to bus and rail access in Portland offered less clear evidence, with a few days less work per year for those not within walking distance of a transit station.

Additional Resources:

- "The Connection Between Public Transit and Employment," Journal of the American Planning Association, Summer 1999
- TCRP Report 34: Assessment of the Economic Impacts of Rural Transportation
- TCRP Report 78: Estimating the Benefits and Costs of Public Transit Projects

A.1.2 Economic Growth Impacts

<u>Urban efficiency & individual economy</u>

Summary of Impact(s): As a result of businesses and households sharing common infrastructure and resources, urban economies gain economic efficiency benefits. Mass transit provides one example of this efficiency, and investments in transit and other transportation infrastructure are shown to correlate with broader measures of economic well-being at the state and national levels.

This sharing of resources helps reduce individual costs for transportation, and this serves as an economic benefit for individual households. For businesses, this

benefit can include the reduced need for providing parking for each employee, which can be a major cost in urban environments.

Documentation of Impacts: It is difficult to single out the overall impacts of transportation in urban economies, and the benefits which may accrue to an individual household or business are often already captured in transportation user benefits or increased property values.

At the national level, Americans living in transit-intensive areas are estimated to save nearly $22 billion each year by using public transportation.[3] This is because automobile travel is inherently inefficient, consuming excess energy and cost when compared to transit. The annual cost of driving a single-occupant vehicle for a year is between $4,800 (small car) and $9,685 (large car/truck). By comparison, the annual average cost for mass transit for one adult ranges from $200 to $2,000 depending on the service used.[4]

Additional Resources:

- TCRP Report 35: Economic Impact Analysis of Transit Investments
- Center for Transportation Excellence

Retail sales

Summary of Impact(s): By changing travel patterns and creating more pedestrian traffic, public transportation services can have localized positive impacts on the volume of retail sales near transit stations. Any such impacts are likely to be redistributive, and may not necessarily represent new retail expenditures from a regional perspective.

Documentation of Impact(s): The performance of the commercial/retail market has been the subject of numerous studies in transit station areas, with anecdotal positive results showing a boost to retail sales.

Overall effects are likely to depend on the types of retail and the level of transit ridership. According to one study, the existence of a transit station may improve the value of a site for retail by up to eight percent.[5]

Additional Resources:

- TCRP Report 35: Economic Impact Analysis of Transit Investments
- TCRP Report 52: Transit Oriented Development and Joint Development in the United States: A Literature Review, 2002
- "Measuring the Success of Transit-Oriented Development: Retail Market Dynamics and Other Key Determinants," John Niles and Dick Nelson, 1999

Tourism & visitation

Summary of Impact(s): By linking major cultural and tourism destinations in an urban environment, public transportation can improve the accessibility of major

institutions (e.g., museums, sporting venues, hotels), build a more tourism-friendly environment and ultimately increase visits to the area.

Linking airports to downtowns and other key destinations in a region can also improve the ability for tourists to travel into and within a metropolitan region using public transportation.

Documentation of Impact(s): While it makes logical sense that linking tourist attractions will create improved opportunities for tourist traffic, there is little research directly linking the two. Nevertheless, streetcar systems in particular have been a vital part of the downtown revitalization strategy for many urban downtown areas.

A 2008 study of a proposed $200 million rail line linking Chicago to Milwaukee estimated the potential for a 1% increase in tourism in southeastern Wisconsin due to the improved connection from northeastern Illinois. This would in turn generate an annual $20M in expenditures, $12 million in wages, 500 jobs, and $3 million in state and local government revenue.[6]

Additional Resources:

- "Community Economic Impact Study of the Proposed Kenosha-Racine-Milwaukee (KRM) Commuter Rail," January 2008

Business development & attraction

Summary of Impact(s): By improving the connections to workforce, accessibility to other cities and airports, and other factors, a region can help build its case as a location for business development. Investment in public transportation could also have an impact on the retention of existing businesses in a region, including the potential to relocate within a region to gain access to transit.

Documentation of Impact(s): Anecdotal evidence suggests that certain corporations and businesses place value on the availability of transit in a region and will specifically locate near a station. These impacts are likely to be long-term, being seen more clearly in locations with established, highly-utilized transit systems.

A recent survey by Jones Lang LaSalle[7] found that 77 percent of New Economy companies rated access to mass transit as an extremely important factor in selecting corporate locations.

Additional Resources:

- "Corporate Location and Smart Growth," ULI Land Use Policy Forum Report, 2002
- Center for Transportation Excellence

Employment & payroll increases

Summary of Impact(s): Major transit projects and services are associated with a large number of jobs and direct local investments. While these are measurable attributes, the economic impact is typically temporary and redistributive.

Construction and operation of a major transit operation has a positive localized economic impact only to the extent that the costs are paid by sources outside of the local region (e.g., federal or state funds).

Documentation of Impact(s): Numerous transit investment studies document the investment level of projects, and this can be translated into rough estimates of wages and job creation. The Center for Transportation Excellence estimates that 314 jobs are created for each $10 million invested in transit capital funding. Nationally, the $32 billion transit industry employs more than 350,000 workers in operations, maintenance, and management. [8]

Additional Resources:

- American Public Transportation Association
- TCRP Report 78: Estimating the Benefits and Costs of Public Transportation Projects.

A.1.3 Environmental Quality

Air pollution

Summary of Impact(s): Air pollution is known to be one of the most costly impacts of auto use, as it is linked to a number of human health, natural environment, and agricultural problems. These cumulative impacts are not generally paid for by individual motorists, or factored into their choice of transportation mode.

Transportation sources contribute to five pollutant types, each of which is monitored by the U.S. Environmental Protection Agency:

- Carbon monoxide (CO)
- Particulate matter (PM)
- Nitrogen oxides (NOx)
- Volatile Organic Compounds (VOCs)
- Sulfur Oxides (SOx)

Additionally, transportation sources contribute to the collection of carbon dioxide in the environment, which is linked to global warming. Highway vehicles are the primary source of carbon monoxide, which contributes to smog.

Documentation of Impact(s): The potential air quality impacts from any federally-funded transportation investment are measured and documented, and generally public transportation projects are shown as having positive impacts. General research suggests that a positive impact on regional air quality is made when a transit vehicle removes three to twelve cars from the road.

According to the Center for Transportation Excellence, when compared with passenger vehicles, each passenger mile on transit generates 95% less carbon

monoxide, 92% less VOCs, and about 50% of the carbon dioxide and nitrogen oxide. [9]

Additional Resources:

- Project-specific Environmental Impact Statements (EISs) and Environmental Assessments (EAs)
- Congestion Mitigation and Air Quality (CMAQ) funding reports
- TCRP Report 78: Estimating the Benefits and Costs of Public Transportation Projects.
- "Conserving Energy and Preserving the Environment: The Role of Public Transportation," APTA

Water pollution

Summary of Impact(s): Exhaust, tires, oil and other emissions from autos are carried away by water runoff and contaminate surface waters and groundwater supplies.

The construction of roadways adds to the impervious urban surface which increases runoff and compounds the spread of water pollution. The construction of a transit asset (specifically rail) instead of new roadways will generally have a lower impact.

Documentation of Impact(s): Water pollution benefits are highly localized, and are generally positive in comparison to building additional roadway. These benefits are likely to be relatively low in comparison to other benefits.

Additional Resources:

- Project-specific Environmental Impact Statements (EISs) and Environmental Assessments (EAs)
- TCRP Report 78: Estimating the Benefits and Costs of Public Transportation Projects.

Noise pollution

Summary of Impact(s): Noise pollution has more localized impact than air or even water pollution, and automobile and truck traffic generally has higher and more sustained noise impacts than mass transit. At the same time, a transit service on its own will often have noise impacts that need to be mitigated.

Documentation of Impact(s): Much like water pollution, the noise pollution benefits to a local area from a transit project are difficult to measure and likely to be relatively low in comparison to other benefits.

Noise pollution has an impact on the value and perception of property, in particular parks, residences, and institutions (libraries, churches, etc.). For example, studies of the price of noise pollution in the housing market have shown that,

above a certain threshold, each additional decibel of noise reduces the value of a home by 0.2 to 1.3 percent. [10]

Additional Resources:

- Project-specific Environmental Impact Statements (EISs) and Environmental Assessments (EAs)
- TCRP Report 78: Estimating the Benefits and Costs of Public Transportation Projects.

A.1.4 Quality of Life

Roadway congestion

Summary of Impact(s): Reducing traffic congestion is one of the most commonly referenced benefits of transit investments, as one transit vehicle can carry enough passengers to replace a large volume of single-occupancy vehicles.

Reducing congestion has transportation benefits to other system users, but also conserves energy (cars and trucks idling in traffic use excess fuel) and improves traffic safety (accident rates are higher on congested roadways). In this way congestion reduction has major impacts on the quality of life in a region.

At the same time, congestion mitigation measures such as transit are unlikely to eliminate traffic in already congested corridors, because any additional roadway capacity freed up during peak periods is often consumed by system users. But by providing additional capacity, especially during peak travel periods, public transportation can help shorten the timeframe of peak travel congestion and provide travelers with another option for trip-making.

Documentation of Impact(s): Reduction in vehicle miles travelled (VMT) is calculated for numerous transit projects, and the national, statewide and regional impacts of public transportation on congestion is a well-studied topic.

Recent estimates from the Texas Transportation Institute (TTI) suggest that without the current set of public transportation resources, roadway travel delays would increase by 27 percent nationally.[11]

Additional demand for trips in congested areas cannot be met by road building alone. The TTI report estimates that an average of 37 road miles would need to be built in most cities annually just to keep up with growing demand.

Case Study – Charlotte LRT Line: A case study from a recently opened light rail line in Charlotte, NC illustrates the impact of transit on traffic. It is a 10-mile line between Pineville and downtown Charlotte costing $480 million that parallels three primary roadways: Interstate 77, a six-lane freeway; South Boulevard and Tryon Road, which are both four lane urban arterials. Ridership counts on transit and new traffic volumes show that in spite of 18,000 transit riders (increase of 12,000 as a result of the LRT) in the corridor on a daily basis that the traffic volumes over that same period did not decrease.[12] In fact they grew slightly to 201,000 vehicles

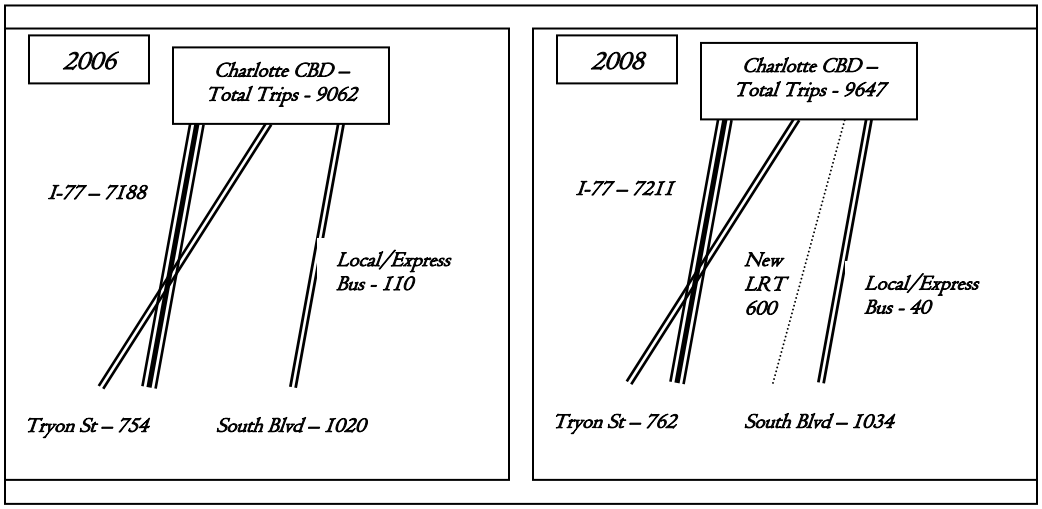
(0.5% increase). About half of the trips on the LRT are made by choice riders (those who would used an automobiles if the LRT did not exist), so how can we explain the increase roadway volumes?

One reason is that population and employment growth of the region and within the corridor keeps generating more trips. But it can also be attributed to the natural adjustment of travel patterns that occurs when capacity changes in a corridor. As mentioned, the impacts of transit on traffic are most pronounced during the peak times of the day and the figure below illustrates the change in volume during the peak hour of the peak travel period[13] for each of the facilities before and after the implementation of the LRT.

During the AM peak hour the roadways accommodate 9,062trips (average in one direction) and the transit system has about 1,280 riders (combined rail and remaining bus), which translates to a 12.5% mode share. Since half the riders on the LRT are choice riders, the transit system is removing about 640 cars from the parallel roadways, which is equivalent to the volume of one half of a lane per peak hour. Surveys on Charlotte transit show that 50% of the riders own automobiles.

Peak Hour (1 Hr) Travel Volumes for Charlotte LRT and Parallel Roadways - 2006-2008

(Transit Volumes of Choice Riders Only- 50% of total riders)



There is new capacity on the roadways that is created by the LRT that has been utilized by new trips that have entered the corridor and it is difficult to determine the source of the new trips. Some of these trips are generated by new development in the corridor, even the development that has occurred around the LRT. But most of the new trips are a result of the balancing of travel patterns that occurs on a road network when capacity opens up in a congested corridor. There are a number of trips on other parts of the road network that are now on one of the three parallel roadways and or the LRT itself.

It is also difficult to estimate the change in volumes on the roadways had the LRT not been built, but it is very likely that the volume of trips would have increased at a faster rate than they did with the presence of transit. Congested conditions theoretically would be worse or at least occur for a longer duration during the peak period.

It is also difficult to assess whether or not the City or NCDOT will be able to avoid or delay widening on the parallel roadways as a result of the capacity generated by the LRT. In the case of I-77, the answer is not likely. Despite the movement of peak hour trips from the interstate to transit, there a too many travel patterns that can be served by the interstate that cannot be conveniently served by transit. These are trips that go significantly beyond either of the endpoint of the LRT. This is a segment of the motorists on I-77 that will continue to increase and it will be very difficult for the transit system to attract. Transit is also ineffective for reducing truck traffic from roadways, which is also a substantial percentage of the volume on interstates. Conversely, the City of Charlotte now has the option to increase the frequency of service on the LRT to accommodate growth and effectively avoid or at least delay widening the arterials in the corridor.

In summary, rather than saying the "mitigation of traffic," a better way to think of the benefit of transit is that it can slow the growth of traffic congestion. Transit is most effective in urbanized areas and during peak periods of traffic in corridors that serve travel patterns that can be conveniently accommodated by transit. From a cost perspective, the initial investment in transit can be difficult to advance politically because the percentage of trips being served on transit is very small compared to a roadway. After the initial investment, however, increasing capacity on a transit facility can be very competitive when compared to the cost of widening a roadway.

Additional Resources:

- Annual Urban Mobility Report, Texas Transportation Institute (TTI)
- Congestion Mitigation and Air Quality (CMAQ) funding reports

Public health

Summary of Impact(s): In addition to the environmental quality benefits discussed previously, which translate into public health benefits, the presence of transit services can provide improved accessibility to health care facilities, leading to lower cost routine and preventive care rather than emergency procedures. Providing connections for low-income, senior and minority populations are particularly important given the prevalence of medical conditions in these populations. Improvement to rural demand response service provides increased mobility and quality of life for transit dependent populations that do not qualify for human service agency sponsored services.

The availability of public transportation also requires, and fosters, a walkable and safer pedestrian environment. Emerging research suggests public health benefits

exist for those living in better connected, walkable environments as opposed to auto-dependent environments found in many suburban development areas.[14]

Documentation of Impact(s): The link to public health is a complex issue which takes into account the availability of public health resources and the design of communities. While research shows public transportation usage as part of an overall healthier lifestyle, the application to specific regions and project-based analysis is limited.

In rural areas, increased transportation for low-income and zero-car households provides the following benefits has been shown to provide increased access to employment for low-income populations which allows less reliance on other government programs. The Virginia Transit Association finds that provide access for one disabled individual to employment saves $7,000 per individual per year in in-home services. More consistent access to medical coverage which improves overall health for the individual, but can also save the county (jurisdiction) money due to reduced emergency rooms visits, usage of emergency services and need for in-home or other specialized medical services sponsored by the county. The Virginia Transit Association finds that providing transportation to elderly individuals helps reduce the reliance of other publicly sponsored services.

Cost of In-Home Services to Elderly (Virginia Transit Association)

Service	Average costs annually	Cost per recipient
Home meals	$3.4 million	$385 per recipient
Home health services	$8.6 million	$959 per recipient
Adult day care	$1.3 million	$3,634 per recipient
Personal care	$74.3 million	$7,434 per recipient
Nursing facility care	$393.3 million	$14,241 per recipient

Source: Virginia Transit Association

Additional Resources:

- "New Data for a New Era: A Summary of the SMARTRAQ Findings," January 2007
- Virginia Transit Association, Webpage of the Benefits of Elderly and Disabled Transportation, Rural Transportation

Transportation safety

Summary of Impact(s): The transportation safety benefits of public transportation are based on statistics that show a lower accident and injury rates for public transportation users versus automobile passengers. In addition, the introduction of traffic congestion increases the risk of accident, meaning that the safety impact of public transportation would be heightened in congested areas.

Documentation of Impact(s): Detailed research exists on traffic safety and the annual costs of highway accidents. In the year 1994, for example, the economic cost of motor vehicle crashes were estimated at $150 billion, or roughly six cents per

vehicle mile traveled (VMT).[15] According to the National Highway Traffic Safety Administration, the economic impact of motor vehicle traffic crashes in Indiana was $4.34 billion in 2000.[16]

By comparison, each passenger mile on transit involves a significantly lower rate of injury or fatality. The table below shows three years of incident data, and a relatively consistent rate of safety for each transit mode.

Injuries + Fatalities per 1B Passenger-Miles in the U.S., 2002-2004

Year	Motor Vehicles	Commuter Rail	Rapid Transit	Light Rail	Bus
2002	647.4	168.2	357.1	390.0	552.8
2003	697.2	175.1	309.2	376.7	544.6
2004	597.1	149.2	334.2	415.6	560.2

Sources: National Safety Council, US Federal Transit Administration, American Public Transportation Association

Additional Resources:

- National Highway Traffic Safety Administration
- National Safety Council
- TCRP Report 78: Estimating the Benefits and Costs of Public Transit Projects

A.1.5 Land Use and Development

Property value

Summary of Impact(s): Transportation infrastructure can improve the accessibility and thus the attractiveness of pieces of property in urban areas. This is true of all transportation investments, with larger investments generally having larger impacts. For public transportation, the impacts are more localized than for roadways, limited to station area locations.

The implication for this is that transit investments need to be planned in tandem with favorable land use policies to ensure that the property value and development impact of an investment is maximized.

Documentation of Impact(s): Numerous studies have documented the impact of transit on property value (especially residential property value), and it is perhaps the most well studied non-transportation impact. Transportation is just one of a set of influences on land use, often making it difficult to determine a direct, causal relationship between a transportation investment and development activity. Other factors which intervene include site characteristics, market conditions in the surrounding area, local and/or regional development regulations.

Nevertheless, numerous studies have detailed transit's effect on land use. A 1998 study of 98 CTA and Metra station areas in and around Chicago confirmed the positive impact of public transportation on property values. Although more dominant influences like neighborhood desirability factor into the overall value, the positive affect of transit proximity was on display across all neighborhood types. While residential properties within 300 feet of a rail line may experience some negative noise impacts which offset property value increases, the general rule applies that there is a decline in value as one gets further from the station. Study results show a range of percentage premium from more than 25% within 500 feet of a station to less than 5% for properties more than 4,000 feet away.[17]

Additional Resources:

- "The Effect of Rail Transit on Property Values: A Summary of Studies," Parsons Brinckerhoff, February 2001
- "Portland Streetcar: Development Oriented Transit," January 2006
- "Community Economic Impact Study of the Proposed Kenosha-Racine-Milwaukee (KRM) Commuter Rail," 2008
- "The Estimated Value of New Investment Adjacent to DART LRT Station: 1999-2005," University of North Texas, 2005
- TCRP Report 52: Transit Oriented Development and Joint Development in the United States: A Literature Review, 2002
- "Impacts of Rail Transit on Property Values," Booz-Allen & Hamilton
- "Wabash Trolley Impact Study," Policy Analytics, LLC, 2008

<u>Adapted/intensified land uses</u>

Summary of Impact(s): Transit allows for the development of dense urban districts and corridors, a development type which could not otherwise be created. These communities are increasingly attractive to key demographic groups (e.g., young professionals) which are important drivers of new economic growth.

This dense clustering of growth around transit stations boosts the development potential for these areas, and often creates new value in redevelopment areas or brownfield sites.

Summary of Impact(s): Numerous studies have explored the link between transit services and the allowable urban densities which it supports. Evidence from Washington, D.C. showed that 40% of new building space, worth $3 billion, was constructed around their new Metro stations during the 1980s.[18] Recent studies of the DART light-rail system in Dallas have found that the system has already generated $800 million in development since it opened in the late 1990s.[19]

Additional Resources:

- TCRP Report 52: Transit Oriented Development and Joint Development in the United States: A Literature Review, 2002

- "Portland Streetcar: Development Oriented Transit," 2006
- "The Estimated Value of New Investment Adjacent to DART LRT Station: 1999-2005," University of North Texas, 2005

A.2 Summary of Peer Systems

In order to compare Indiana transit systems to their peers, and to document the potential impacts of transit for Indiana cities and regions, a group of national "peer cities" has been identified for this study. The goal of the analysis is to determine which lessons can be learned from the transit implementation in other communities and to determine the potential benefits and risks of transit investment for Indiana communities.

This approach was selected because it is difficult to universally translate a given level of transit service or an amount of transit investment into a well-defined benefit amount especially when specific details about the transit investment is not completely defined. So much depends on the local environment, intensity of transit investment, details about the investment, its place in the existing transportation network and the economic trends affecting that community. It is possible to, however, to provide a comparative analysis of the experience of other communities which have made the choice to invest in transit.

In addition, it is not logical to analyze the experience of a large, urban metropolis (e.g., Chicago) and apply those results to a much smaller town (e.g., Muncie). Instead, an attempt has been made to match Indiana cities with similar examples.

Using secondary data sources and research compiled in the peer cities themselves (whether by the transit agency, the city, the media, etc.), this report identifies the potential impacts that could be seen with investments in public transportation in Indiana.

A.2.1 Selection of Peers/Community Typologies

A set of six different types of communities, from major metropolitan areas to rural counties, was chosen with the understanding that the scale and types of impacts can be very different in different settings.

The table on the following page notes the community typologies chosen for this study. The "peer cities" shown were chosen based on a variety of factors, including:

- **Population** – The relative size of a city and its region determines the overall demand for trips and thus the potential size of a public transportation network.
- **Growth trends** – The development trends of a region are an important factor for transit. Is the entire region growing in population and employment? Is the central city contracting while suburban areas grow?

- **Geography** – The political and physical geography of a place can affect trip-making and regional connectivity, for example where metropolitan areas cross state boundaries or major rivers.
- **Transit System** – A key factor for choosing peer cities was their recent investment in transit or reputation as having a relatively well-run transit system for a city of its size. In this way it is possible to determine impacts of new transit investment to the region.

Community Typologies

Typology	Attributes	Relevant Indiana Cities/Regions	Peer Cities
Major Metropolitan Area	Population threshold: >1M in MSA	Indianapolis	Charlotte Dallas Denver Minneapolis Pittsburgh Salt Lake City
Major Metropolitan Area – Suburban Portion	Counties / Cities bordering Major Metropolitan Areas centered across State line	Chicago MSA Louisville MSA Cincinnati MSA	Chicago MSA (Metra / NICTD) Philadelphia MSA (NJ Transit) St. Louis MSA (Metro)
Medium City	Population threshold: 200k-1M in MSA	Fort Wayne Evansville South Bend - Mishawaka - Elkhart	Quad Cities IL/IA Albuquerque NM Charleston SC Little Rock AR
University/College Town	Population threshold: <300k in County / MSA and location of major college or university	Bloomington (Indiana University) Muncie (Ball State) Terre Haute (Indiana State) Lafayette / West Lafayette (Purdue)	Chapel Hill NC Ft. Collins CO Champaign IL
Small City	Population threshold: <200k in County / MSA with small-sized City	Kokomo Anderson Columbus Richmond Marion	Paducah KY Florence SC Traverse City MI
Rural Areas	All Counties/Cities not included above	Remaining Indiana Cities/Counties	Central Texas (CARTS) SE Oklahoma (KI BOIS)

A.2.2 Peer City Comparison - Population & Transit Modes

Major Metropolitan Areas

The largest metropolitan areas are home to the largest variety of transit services and modes, and also offer the greatest potential for impacts—there are more people making trips, more traffic congestion on the roadways, and a varied set of residents with different housing demands.

Indianapolis is the only Indiana city which falls into the "Major Metropolitan Area" category. The table below compares some basic statistics for Indianapolis and the peer cities chosen for this study. In terms of population, the largest metropolitan region is Dallas-Fort Worth, Texas, and the smallest is Salt Lake City, Utah.

Peer City Comparison – Major Metropolitan Areas

	Area	2007 Pop.	Existing Transit Modes
Indianapolis	Marion Co.	876,804	Bus, Demand Response
	MSA	1,695,037	
Charlotte	Mecklenburg Co.	867,067	Light Rail, Bus, Demand Response
	MSA	1,651,568	
Dallas	Dallas Co.	2,366,511	Commuter Rail, Light Rail, Bus, Demand Response
	MSA	5,999,197	
Denver	Denver Co.	588,349	Light Rail, Bus, Demand Response
	MSA	2,464,866	
Minneapolis	Hennepin Co.	1,136,599	Light Rail, Bus, Demand Response
	MSA	3,208,212	
Pittsburgh	Allegheny Co.	1,219,210	Light Rail, Bus Rapid Transit, Bus, Demand Response
	MSA	2,355,712	
Salt Lake City	Salt Lake Co.	1,009,518	Commuter Rail, Light Rail, Bus, Demand Response
	MSA	1,099,973	

Sources: U.S. Census, STATS Indiana

In terms of population size, the City of Indianapolis and the Indianapolis metropolitan region are both very similar to the Charlotte and Denver, areas which have invested heavily in new light-rail transit systems in the past 10 years. Other Midwestern cities such as Minneapolis and Pittsburgh have similarly added new fixed-guideway service, as has the Salt Lake City region. Dallas is part of a much larger metropolitan area, but has experienced significant impacts from its investment in light-rail transit, particularly related to land uses.

A comparison of the public transportation systems and usage shows Indianapolis far behind its peers in terms of the amount of transit service provided and the usage levels of that service. Based on 2000 data, transit's share of overall regional work trips was the lowest in Indianapolis at 1.3%, with Charlotte and Dallas also below 2%. However, recent investments in new light rail systems in those two metropolitan areas are likely to increase transit's share of the travel market.

The overall density of population and employment in Indianapolis, a key determinant for transit usage, also compares to its peers, as shown in the table below.

Density Comparison – Major Metropolitan Areas

	Area	Area (sq mi)	Pop. Density (people/sq mi)	Emp Density (jobs/sq mi)
Indianapolis	Marion Co.	396	2,213	1,464
	MSA	3,863	439	220
Charlotte	Mecklenburg Co.	526	1,647	1,030
	MSA	3,098	533	261
Dallas	Dallas Co.	880	2,690	1,656
	MSA	9,161	655	302
Denver	Denver Co.	153	3,835	2,819
	MSA	8,357	295	144
Minneapolis	Hennepin Co.	557	2,042	1,511
	MSA	6,063	529	286
Pittsburgh	Allegheny Co.	730	1,670	937
	MSA	5,280	446	208
Salt Lake City	Salt Lake Co.	737	1,369	766
	MSA	9,539	115	63

Sources: U.S. Census, STATS Indiana

Major Metropolitan Areas – Suburban/Out-of-State Portion

Major metropolitan areas often stretch across State boundaries, and public transportation systems can provide a key link into the city centers which lie just across the border.

There are three portions of Indiana which are portions of larger metropolitan areas centered across state lines: Chicago, Cincinnati and Louisville. The tables in this section compare these areas with the chosen Peer Cities chosen. Like Louisville and Cincinnati, Philadelphia and St. Louis are each separated from the respective out-of-state portions by a major river. It is worth noting that the portion of Indiana within the Chicago MSA is the second most populous area in the State behind Indianapolis.

Peer City Comparison – Major Metropolitan Areas/Out-of-State Portion

	Area	2007 Pop.	Existing Transit Modes
Chicago	IN Portion	698,971	Commuter Rail, Heavy Rail, Bus, Demand Response
	MSA	9,524,673	
Cincinnati	IN Portion	78,765	Bus, Demand Response
	MSA	2,133,678	
Louisville	IN Portion	242,829	Bus, Demand Response
	MSA	1,233,735	
Philadelphia	NJ Portion	1,246,339	Commuter Rail, Heavy Rail, Light Rail, Bus, Demand Response
	MSA	5,827,962	
St. Louis	IL Portion	561,035	Light Rail, Bus, Demand Response
	MSA	2,827,783	

Sources: U.S. Census, STATS Indiana

The Indiana portion of the Chicago region compares similarly to the New Jersey portion of Philadelphia in terms of being a small, geographically separated portion of a much larger regional economy. Each area has also experienced significant population and employment declines in recent decades from their largest, historically industrial cities. Cincinnati and Louisville have similar profiles to the St. Louis area, with out-of-state portions of the region separated by a major river crossing.

The out-of-state peer areas have each invested in new fixed-guideway transit connections into their central cities, and economic growth patterns in those areas have been impacted by these transit investments. The Philadelphia, St. Louis and Chicago areas have interconnected mass transit systems which cross state boundaries. Of these, the St. Louis light rail system is rather young, with a growing number of transit trips which will likely make for a higher transit mode share in the future. The table below compares current density and land use figures.

Density Comparison – Major Metropolitan Areas/Out-of-State Portion

	Area	Area (sq mi)	Pop Density (people/sq mi)	Emp Density (jobs/sq mi)
Chicago	IN Portion	1,877	372	141
	MSA	7,212	1,321	601
Cincinnati	IN Portion	778	101	26
	MSA	4,398	485	229
Louisville	IN Portion	1,523	159	61
	MSA	4,135	298	142
Philadelphia	NJ Portion	1,352	922	383
	MSA	4,630	1,259	578
St. Louis	IL Portion	1,777	316	111
	MSA	9,392	301	139

Sources: U.S. Census, STATS Indiana

Medium Cities

Medium cities are generally the second-tier population centers in a state, or the major population center in a small state. These areas typically do not support major heavy rail or commuter rail service, but certain medium cities have had success with investments in upgraded local bus, express bus, and/or streetcar/trolley systems.

There are three cities in Indiana which fall into the "medium city" category: Fort Wayne, Evansville and South Bend-Elkhart.

Peer City Transit Comparison – Medium Cities

	Area	Population (2007)	Existing Transit Modes
Fort Wayne	MSA	523,253	Bus, Demand Response
Evansville	MSA	349,717	Bus, Demand Response
South Bend-Elkhart	St. Joseph Co., Elkhart Co.	464,030	Bus, Demand Response
Quad Cities	MSA	376,160	Bus, Demand Response
Albuquerque	MSA	835,120	Commuter Rail, Bus, Demand Response
Charleston	MSA	630,100	Bus, Demand Response
Little Rock	MSA	666,401	Streetcar, Bus, Demand Response

Sources: U.S. Census, STATS Indiana

Transit systems in the medium cities are primarily made up of local bus and demand response services. Many of the areas, including the Quad Cities and Albuquerque, have pursued federal funding for new fixed-guideway transit but had difficultly in meeting the ridership and cost thresholds used by the FTA when considering New Starts grant eligibility. Thus, recent commuter rail (Albuquerque) and streetcar (Little Rock) investments have been funded through local and/or state funding sources.

Overall, the medium cities in Indiana have relatively smaller proportions of budget, trips and transit usage than their peers. Fort Wayne in particular has low levels of transit usage and trips compared to its budget and size.

A comparison of existing population and employment densities in the medium cities is shown in the following table. The population densities are particularly high in the South Bend-Elkhart region. The Albuquerque region includes some very large and sparsely populated counties, making it look less dense than it is.

Medium Cities – Density Comparison

	Area	Area (sq mi)	Pop. Density (people/sq mi)	Emp Density (jobs/sq mi)
Fort Wayne	MSA	2,448	214	104
Evansville	MSA	2,291	153	75
South Bend-Elkhart	St. Joseph Co., Elkhart Co.	921	504	272
Quad Cities	MSA	2,269	166	81
Albuquerque	MSA	9,288	90	41
Charleston	MSA	2,591	243	105
Little Rock	MSA	4,090	163	79

Sources: U.S. Census, STATS Indiana

University/College Towns

The presence of a University provides a basis for transit system ridership (i.e., a student base) which improves the potential for benefits. In addition to a captive base for system usage, for a medium-sized city the university or college is typically a major concentration of economic and employment activity, and often the main entity for bringing additional economic development into a City. Major educational institutions and public transportation are a natural fit, and this connection has been capitalized upon in many university and college towns in Indiana.

For the purposes of our study, a University/College town is a small MSA (roughly 200k population or less) that has a major university which makes up a significant portion of the population. There are four cities in Indiana which fall into the University/College Town category:

- Bloomington/Indiana University (37,901 full-time enrollment)
- Lafayette/Purdue University (39,611)
- Muncie/Ball State University (20,119)
- Terre Haute/Indiana State University (10,543)

Peer City Comparison – University/College Towns

	Area	2007 Pop.	Existing Transit Modes
Bloomington	Monroe Co.	128,643	Bus, Demand Response
Lafayette/ West Lafayette	Tippecanoe Co.	163,364	Bus, Demand Response
Muncie	Delaware Co.	115,419	Bus, Demand Response
Terre Haute	Vigo Co.	104,915	Bus, Demand Response
Champaign	Champaign Co., Ill.	190,260	Bus, Demand Response
Fort Collins	Larimer Co., Colo.	287,574	Bus, Demand Response
Chapel Hill	Orange Co., N.C.	124,313	Bus, Demand Response

Sources: U.S. Census, STATS Indiana

The university/college towns do not feature fixed-guideway transit, instead relying on bus and demand response services. Overall, the budgets and usage of the Indiana college town systems are lower than Champaign and Chapel Hill, but higher than for Fort Collins. Terre Haute does not fit the mold of a college/university town with higher than expected transit usage.

Density Comparison – University/College Towns

	Area	Area (sq mi)	Pop. Density (people/sq mi)	Emp Density (jobs/sq mi)
Bloomington	Monroe Co.	394	326	156
Lafayette/ West Lafayette	Tippecanoe Co.	500	327	151
Muncie	Delaware Co.	393	293	123
Terre Haute	Vigo Co.	403	260	128
Champaign	Champaign Co., IL	997	191	91
Fort Collins	Larimer Co., CO	2,601	111	49
Chapel Hill	Orange Co.,NC	400	311	149

Sources: U.S. Census, STATS Indiana

Small Regional Cities

Small regional cities are generally those which have greater than 50,000 inhabitants within the city or primary county, but less than 200,000 in the region. The Indiana metropolitan areas of Kokomo, Anderson, Columbus, Richmond and Marion fall into this category. The table below shows the peer cities chosen, and their relative populations.

Peer City Comparison – Small Regional Cities

	Area	2007 Pop.	Existing Transit Modes
Kokomo	Howard Co.	83,776	Demand Response
Anderson	Madison Co.	131,312	Bus, Demand Response
Columbus	Bartholomew Co.	74,750	Bus, Demand Response
Richmond	Wayne Co.	68,260	Bus, Demand Response
Marion	Grant Co.	68,847	Bus, Demand Response
Traverse City (MI)	Grand Traverse Co.	85,479	Bus, Demand Response
Paducah (KY)	McCracken Co.	64,765	Bus, Demand Response
Florence (SC)	Florence Co.	131,886	Bus, Demand Response

Sources: U.S. Census, STATS Indiana

There is no fixed-guideway transit among the peer cities chosen for the study. These communities typically do not have the density of people or employment to make these transit services efficient, and instead have focused on efforts such as improving transit service levels and connectivity on the bus network (Traverse City), providing downtown transit circulators targeted at recreational users and tourists (Paducah, Traverse City), or focused on providing point-to-point employment trips via the demand response service (Florence).

The density profiles for the small regional cities in Indiana and their peers are similar, as shown in the table below.

Density Comparison – Small Regional Cities

	Area	Area (sq mi)	Pop. Density (people/sq mi)	Emp Density (jobs/sq mi)
Kokomo	Howard Co.	293	286	140
Anderson	Madison Co.	452	290	91
Columbus	Bartholomew Co.	407	184	105
Richmond	Wayne Co.	404	169	83
Marion	Grant Co.	414	166	64
Traverse City (MI.)	Grand Traverse Co.	465	84	102
Paducah (KY.)	McCracken Co.	251	258	145
Florence (SC)	Florence Co.	800	165	76

Sources: U.S. Census, STATS Indiana

Rural Population Areas

Rural population areas are those counties not within a major metropolitan region. These areas are not densely populated, but typically orient themselves toward one or more nearby metro regions. The two peer areas chosen due to their active rural transit systems were southeast Oklahoma and central Texas.

Peer City Comparison – Rural Areas

	Area	2007 Pop.	Existing Transit Modes
Southeast Oklahoma	LeFlore, Latimer, McIntosh, Haskell Cos., Okla.	1,598,161	Demand Response
Central Texas	Burnet County	43,689	Demand Response

Sources: U.S. Census, STATS Indiana

These rural demand response systems provide key trips for employment, seniors and the disabled. These are also large, multi-county systems that serve trips within a broad service area (unlike the systems seen in much of Indiana).

The social and employment benefits of these systems are clear, but there is little impact on congestion, land use, or the environment from these systems.

Density Comparison – Rural Areas

	Area	Area (sq mi)	Pop. Density (people/sq mi)	Emp Density (jobs/sq mi)
Southeast Oklahoma	LeFlore, Latimer, McIntosh, Haskell Cos., Okla.	3,505	26	7
Central Texas	Burnet County	515	44	12

Sources: U.S. Census, STATS Indiana

A.3 Review of Peer System Impacts

Based on a review of the experiences within the peer cities chosen for this study, this section presents an assessment of the documentation for the benefit types identified earlier in this section. In the table below, the right-hand column notes which metrics are documented by the localities used in this analysis, and break down as follows:

- **High:** Numerous cities have done detailed analysis linking investment in public transit and benefits of this type. The results show a clear benefit which can be measured against goals or otherwise quantified.
- **Medium:** Some cities have used this metric for transit planning, but the analysis at each local level is not consistently reported. The link between transit and these benefits are evident if not always easily quantified.

- **Low:** Very little research done on the local level, which may be an indication of the difficulty of directly linking transit improvements to these benefits—or that transit and transportation are one of a host of factors which influence these areas and isolating their influence is nearly impossible. In other cases (e.g., water quality), there is documentation of only the potential impacts without much analysis of the resulting benefits.

A lack of documentation via case studies does not indicate that the link between transit and a particular impact has not been researched on a general basis, but may mean that the quantification of this benefit is difficult to quantify in relation to a specific transit service or investment. The discussion of impacts in the peer cities will necessarily focus on those benefit types which are most well documented.

Table: Peer City Impacts Documentation

Category	Benefit Type	Peer City Documentation
Social/Demographic	Mobility/accessibility for key demographic groups	High
	Employment/workforce participation rates	Medium
Economic Growth	Urban efficiency & individual economy	Low
	Retail sales	Low
	Tourism & visitation	Medium
	Business development	Low
	Employment & payroll increases	Medium
Environmental Quality	Air quality	High
	Water quality	Low
	Noise pollution	Low
Quality of Life	Roadway congestion	Medium
	Public health	Low
	Transportation safety	Medium
Land Use & Development	Property value	High
	Adapted/intensified land-use patterns	High

A.3.1 Key Findings

The following summarizes some of the key findings from the survey of peer cities. At the end of this section find a table which rates the scale of potential impacts in each of the community types.

<u>Comparative Notes</u>

- Even though they are similar in size, density and other factors, Indiana cities generally have lower transit investment and service than their peers and thus less transit-related impacts. The analysis shows that spending on transit is nearly always lower, as is transit usage.
- Unlike some of the peer urban areas, the overall economic environment in Indiana is typified by slow growth or even decline. In particular, existing core cities in Indiana are experiencing population loss and declining employment.

Notable exceptions are Indianapolis, portions of northwest Indiana, and the two major university towns, Bloomington and Lafayette.

Major Metropolitan Areas

- Major cities such as Charlotte and Denver are expected to maintain or grow their share of the regional employment market, even as areas around the outside fringe of the region expand. Investment in transit is a key facet of the economic growth strategy for these areas, which involve not only major office tenants and corporations but also development of the entertainment, cultural, tourism, and service industries.
- Major cities and urban areas have the most congestion issues, making transit's impacts on congestion most evident in these environments. While transit is unlikely to eliminate congestion, adding transit to a major highway corridor can slow the growth of congestion growth over the long term.
- Congestion issues are particularly severe for those out-of-state portions of metropolitan regions which are separated by major rivers or other bodies of water.
- Numerous cities, including Dallas and Chicago, have accomplished comprehensive studies showing that the value of property increases as it becomes closer to rail stations.
- The FTA New Starts program has been the primary funding source for most of the major light rail expansions being constructed in the major metropolitan areas. This is a long-term, competitive funding process which means that transit projects often experience 10 or more years from initial studies to beginning operations.

Medium Cities

- While recent major investments in fixed-guideway transit have occurred via the New Starts program, medium cities have difficulty meeting the FTA standards for cost-effectiveness.
- The Rail Runner in Albuquerque is an exception, and is pursuing funds to for its second phase connecting to Santa Fe, effectively joining the two major cities in New Mexico. This strategy may be repeatable for Indiana's medium cities, with improved regional connections (e.g., Fort Wayne to Indianapolis or South Bend/Elkhart to Chicago).
- In the absence of other large-scale transit systems, many medium cities have pursued streetcar and trolley systems as an economic development tool to connect tourist destinations in the central city. The experience in Little Rock provides a key example.
- Local bus systems and services are the least likely to attract "choice" riders, or those who have the means to choose another travel option. In the medium-sized or smaller city types where bus is the only local option, the

percentage of transit dependent ridership for a system can be as high as 80%.

College/University Towns

- Cities which include a major university or college were studied separately for a number of reasons, but the key differentiator is that the student base provides a large (and highly concentrated) population of low-income households. These low-income households are active, often having to make numerous trips per day to different parts of the campus or the city.
- Large state universities are increasingly becoming drivers for economic growth regionally and statewide. A review of the peer cities shows many college towns considering improved public transportation connections to the rest of their respective states and regions.
- Transit systems in College/University towns often benefit from the student base, but the peer city studies show very little impacts of transit on land use and development patterns. Instead, bus systems concentrate on serving the existing campus and city centers, which are not always adjacent.

Small Regional Cities & Rural Areas

- Local bus systems and services are the least likely to attract "choice" riders, or those who have the means to choose another travel option. In the medium-sized or smaller city types where bus is the only local option, the transit system ridership can be made up of more than 80% transit dependents.
- For smaller cities, the bus system and dial-a-ride services are primarily viewed as a public service for transit-dependent populations, and at least one of the peer cities (Florence) has reduced fixed-route bus to focus on serving point-to-point trips for workers, seniors and others.
- As in medium cities, streetcar and trolley projects have experienced some success in bringing tourists and visitors to downtown areas. These systems are generally more a part of the economic growth strategy for a region than the transportation strategy.

A.3.2 Strategic Results

A key theme across all impact areas is this importance of proactively making the connection between a transit investment and its benefits. While the potential for positive social, economic and environmental effects from a transit investment are easy to identify, the actual impacts will be dependent not only on system usage but also the ability of a State or region to link transit service to other planning efforts around issues such as job access, economic development, and sustainability.

Typically, fixed-route transit systems (e.g., light rail) have limited ability to serve the growing number of suburb-to-suburb work trips that are making up a larger proportion of trip types in nearly every region. This has led some areas to adopt a

more demand-response focus for their transit system, particularly in smaller regions.

Areas without transit systems are generally more distributed in their growth patterns, both for population growth and economic (employment) growth. This is a continuous cycle—areas without transit cannot form high-density employment zones due to the limitations of roadway capacity and congestion.

Range of Impacts by Community Typology

Typology	Social/Demographic	Economic Growth	Environment/ Quality of Life	Land Use/ Development
Major Metropolitan Area	*High* – Areas often have large concentrations of low-income households in job-poor areas.	*High* – Transit has a major role in concentrating growth in city centers.	*High* – Major cities have the most congestion, environmental quality issues.	*High* – Major national trend in cities toward development around transit and increased demand for transit adjacent sites driving up property value.
Major Metropolitan Area – Suburban Portion	*High* – Areas often have large concentrations of low-income households in job-poor areas.	*Medium* – Allows out of state areas to better connect with economic centers of their regions.	*High* – Major cities have the most congestion, environmental quality issues.	*High* – Major national trend in cities toward development around transit and increased demand for transit adjacent sites driving up property value.
Medium City	*High* – Jobs are typically more distributed across area, making for difficult transit service with high levels of transit dependents.	*Medium* – Survey shows use of streetcars to boost tourism market, as well as use of regional connections to other major cities.	*Medium* – Provides congestion relief on a smaller scale. Environmental impacts low for bus or streetcar systems.	*Medium* – Impacts on downtown redevelopment for local rail systems.
University/College Town	*Medium* – High poverty levels due to student population, presence of high ridership base allow for more robust system.	*Medium* – Improved connections between campus and city centers have proven beneficial for economic development and growth.	*Medium* – Congestion relief and environmental mitigation for certain corridors, but these are not major uses.	*Low* – Bus systems typically adapt to existing uses and do not drive development.
Small City	*Medium* – Job base distributed, and population base is often more rural. High levels of transit dependent ridership.	*Low* – Some tourism benefits seen by smaller cities.	*Low* – Low congestion areas typically not experiencing major transportation impacts to air quality.	*Low* – Bus systems typically adapt to existing uses and do not drive development.
Rural Areas	*Medium* – Services reach very small proportion of the population but provide a vital service for transit dependents (particularly seniors).	*Low* – No major impacts	*Low* – Low congestion areas typically not experiencing major transportation impacts to air quality.	*Low* – No major impacts.

Endnotes

[1] "A Heavy Load: The Combined Housing and Transportation Burdens of Working Families," Center for Housing Policy, October 2006

[2] "The Connection Between Public Transit and Employment," Journal of the American Planning Association, Summer 1999

[3] Center for Transportation Excellence, http://www.cfte.org.

[4] Center for Transportation Excellence, http://www.cfte.org.

[5] "Measuring the Success of Transit-Oriented Development: Retail Market Dynamics and Other Key Determinants," John Niles and Dick Nelson, 1999

[6] "Community Economic Impact Study of the Proposed Kenosha-Racine-Milwaukee (KRM) Commuter Rail," January 2008

[7] "The Lasting Legacy of New Economy Companies," *Property Futures*, Jones Lang LaSalle, Volume 1, 2001, 7-10.

[8] Center for Transportation Excellence, http://www.cfte.org.

[9] Center for Transportation Excellence, http://www.cfte.org.

[10] TCRP Report 78: Estimating the Benefits and Costs of Public Transit Projects, 2002

[11] Urban Mobility Report, Texas Transportation Institute

[12] City of Charlotte, N.C.

[13] The peak hour of the peak period refers to the one hour time period during the peak travel period that has the highest volume on the roadways and transit. It is the time of day with the worst congestion on the roadway.

[14] "New Data for a New Era: A Summary of the SMARTRAQ Findings," January 2007

[15] TCRP Report 78: Estimating the Benefits and Costs of Public Transit Projects, 2002

[16] National Highway Traffic Safety Administration, http://www.nhtsa.dot.gov/

[17] "The Effect of Rail Transit on Property Values: A Summary of Studies," Parsons Brinckerhoff, February 2001

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Appendix B
Indiana Mass Transit Studies
PL 203-2007

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Appendix B
Regional Transit Demand Assessment Methodology

Two approaches were used in the Regional Mass Transit Studies to identify transit demand at a regional level, reflecting two different evaluation objectives. In the first approach, areas of each region were identified where scheduled fixed-route transit service is likely to be supported by local conditions, such as population and employment density and roadway congestion. This approach helps to identify areas where land use patterns could support higher investment in mass transit infrastructure in order to supplement roadway capacity and provide realistic transportation alternatives for travelers that have a choice of mode.

In the second approach, estimates of potential transit ridership were developed for all counties in each region based on theoretical estimates of unmet demand. This considers demand for both demand-responsive and fixed route transit service. This second approach will support the establishment of mass transit service and investment goals on a regional and statewide basis. Recognizing the theoretical nature of area-wide transit demand estimates and the influence of specific local conditions on demand, multiple methods were used in this study to identify a potential range of transit need.

The demand estimates developed for this study are intended to serve as input to policy discussions at a regional or statewide level. They provide a statistical, yet theoretical, measure of potential transit demand on an area-wide basis. Since transit demand within individual corridors is ultimately determined by localized conditions such as land use and development intensity along the transit line, employment concentrations and clusters, and supporting infrastructure, these methods do not provide the level of detail necessary for planning any particular transit service. The regional summaries presented here are subject to refinement based on input from local planning officials, who are more familiar with these corridor-specific factors.

B.1 Areas with Transit-Supportive Characteristics

Several studies in the past thirty years have attempted to identify relationships between transit ridership and land use development patterns. Transit Cooperative Research Program (TCRP) Report 16 provides two scales that have been developed to identify the general type of transit service that can be supported by different local conditions. These are shown in Table 1.

The thresholds listed in the table below are generalizations that provide an overall estimate of the need and level of potential transit service. As stated previously, corridor-specific factors, such as the mix of land uses, pedestrian accessibility, local travel patterns, roadway congestion, urban design elements, and transit service characteristics (existing or proposed) also have an effect on transit ridership. Nonetheless, this general information on residential and employment thresholds can be used at a planning level to identify areas or regions where scheduled transit service may be successful.

Relationship between Densities and Transit Services

Pushkarev and Zupan (1982)	
Service Level	Residential Density Threshold
Bus: minimum service (20 buses/day)	4 dwelling units/residential acre
Bus: intermediate service (40 buses/day)	7 dwelling units/residential acre
Bus: frequent service (120 buses/day)	15 dwelling units/residential acre
Light rail (5-minute peak headways)	9 dwelling units/residential acre 25-100 square-mile corridor
Rapid rail (5-minute peak headways)	12 dwelling units/residential acre 100-150 square-mile corridor
Commuter rail (20 trains/day)	1-2 dwelling units/residential acre using existing track

Institute of Transportation Engineers (1989)		
Service Level	Residential Density Threshold	Employment Threshold
1 bus/hour	4-6 dwelling units/residential acre	5-8 million square feet of commercial/office
2 buses/hour	7-8 dwelling units/residential acre	8-20 million square feet of commercial/office
Light rail with feeder buses	9 dwelling units/residential acre	35-50 million square feet of commercial/office

Source: TCRP Report 16 (1996)

For this study, block-level data from the 2000 Census were used to develop maps of housing unit densities in each region[1]. Employment data for the year 2000 were obtained from the Indiana Statewide Travel Demand Model (ISTDM) and used to identify major employment areas in each region[2.] This information helps to visually identify those areas where scheduled transit may be beneficial.

The ISTDM was also used to identify commuting patterns and congested roadways within each Indiana region[3]. In areas where travel demand is high and roads are congested, transit is often seen as an attractive alternative to driving, especially when transit can operate on an exclusive facility (such as a rail line or busway) that is not impacted by the congestion on surrounding roads[4].

These factors together help to identify areas that can support scheduled, fixed route transit service. Areas that do not meet the conditions above are likely to be best served by rural demand-responsive transit service.

B.2 Potential Regional Transit Demand

The methods used in this study to estimate regional transit demand reflect the number of annual transit trips that could be expected if good transit service were to be provided in all areas. These methods represent the state of the practice in statewide transit planning, but are ultimately theoretical models that cannot identify demand precisely. Furthermore, the definition of "good transit service" differs among the methods, resulting in a wide variation in the demand estimates generated by each method. For these reasons, multiple methods were used to identify a range of potential transit ridership. Demand estimates are provided

for the year 2007, allowing comparison with the actual transit service provided in Indiana as identified in the 2006 Indiana Public Transit Annual Report.

For purposes of estimating potential transit ridership, each county has been categorized as either urban or rural. Urban counties are classified as those that are substantially part of an MPO planning area or contain an urban area with at least 30,000 residents. All other counties in the state are classified as rural.

Different ridership estimation methods were used for urban and rural counties. Some methods are better suited to rural areas or small towns, where trip origins and destinations are often too widely dispersed to support fixed route transit service. Transit service in these areas is often demand-responsive and serves primarily individuals with limited access or ability to use automobiles. Other methods are better suited to estimation of needs in urban areas, where densities may support fixed route transit and service can attract choice riders in addition to those with mobility limitations. The various demand estimation methods are discussed below.

Arkansas Public Transportation Needs Assessment (APTNA) Method

The APTNA method estimates the need for rural demand-responsive transit service in a region by applying a formula based on the trip-making characteristics of three population groups: the elderly, the disabled, and individuals living in poverty. This formula was developed to estimate the number of trips that might be made on specialized public transportation services if sufficient services were provided in a region. It was developed as part of a transit needs study in Arkansas,[5] based on rates close to the statewide 80th percentile trip-making rate (i.e., a high level of mobility for these population groups). The APTNA formula used in this study is based on trip rates cited in a subsequent application in Northwest Arkansas[6] and is expressed as:

$$T = 8.4 * E + 29.3 * D + 14.5 * L$$

Where,
T = Annual one-way transit passenger-trips
E = Elderly population (65 and older)
D = Disabled population under 65 years old
L = Low income population under 65 years old

The population information used to apply this model to rural counties in Indiana was obtained from 2007 Census Bureau population estimates. Because disability and poverty information is not available in annual updates, these were estimated for 2007 by applying per capita rates from the 2000 Decennial Census. The Census Bureau category of "Go Outside Home" disability was used to identify the disabled population for this model.

The APTNA model is easily understood and easily calculated with readily available data. Since the development of this model was not based on systems within Indiana, however, it is not known how well the ridership estimates actually represent demand in Indiana counties. In addition, this method only reflects potential ridership on demand-responsive systems based on the trip-making characteristics of a sub-segment of the population.

Washington State Department of Transportation (WSDOT) Method

Painter and Casavant[7] developed three models to estimate potential rural transit system ridership in Washington State based on data from four sample rural regional transit systems. These systems included a combination of fixed-route and demand-responsive services. The first of these models estimates aggregate demand for any rural system, while a second model provides a better estimate of demand for those rural systems that charge a fare. A third model estimates ridership potential for systems in areas where detailed information about the transit ridership behavior of particular population subgroups can be identified.

The aggregate demand model for fare-based systems was used for this study because almost all transit systems in Indiana charge some level of fare for transportation services[8]. This model calculates potential transit trips using the following equation:

$$T = (6.4 * E + 12.5 * P + 120(MLA + MLE)) / (1.7 * V)$$

Where,
T = Annual one-way transit passenger-trips for systems charging fares
E = Elderly population (65 and older)
P = Total population
MLA = Mobility limited adult population (16 to 64)
MLE = Mobility limited elderly population (65 and older)
V = Proportion of population that is above poverty level

As with the APTNA model, the population information used to apply this model to rural counties in Indiana was obtained from 2007 Census Bureau population estimates and the 2000 Decennial Census. The Census Bureau category of "Go Outside Home" disability was used to identify the mobility limited population for this model.

The advantages and disadvantages of the WSDOT model are similar to those of the APTNA model. It is easily understood and easily calculated, but it is not known how well the ridership estimates actually represent demand in rural Indiana counties. Unlike the APTNA model, however, the WSDOT model reflects demand for rural fixed-route systems in addition to demand-responsive systems. The transit needs estimates of the WSDOT method are generally higher than those of the APTNA method.

Mobility Gap Method

The Mobility Gap method can be used to estimate transit need in both rural and urban counties. This method estimates transit service need to be the difference in trip-making between households with a vehicle and households without a vehicle. The underlying assumption is that households without a vehicle would make as many trips as households with a vehicle if sufficient transit service were available.

For this study, the mobility gap was calculated using the difference in average trip rates between no-vehicle households and two-vehicle households. Data from the 2001 National Household Transportation Survey (NHTS) were used to identify national average household trip rates for rural and urban areas. Trip rates were identified on a per-person basis in order to correct for the differences in the number of occupants between no-vehicle households and two-vehicle households. The table shows household travel information obtained from

the NHTS. While annual trips per person do increase somewhat in households with more than two vehicles, the mobility level of two-vehicle households provides a reasonable goal, especially since more than 75% of American households have two or fewer vehicles.

NHTS Household Mobility Statistics

	Number of Household Vehicles		
	Zero	One	Two
Annual Trips per Person in Household			
Urban	1034	1426	1526
Rural	769	1326	1400
Persons per Household			
Urban	1.68	1.73	2.98
Rural	1.52	1.69	2.84

Source: 2001 National Household Travel Survey

The transit need for each county in each region was estimated using the above household travel information and the formula shown below. Information on zero-vehicle households for each county was obtained from the 2000 Census and updated to 2007 by assuming that the proportion of zero-vehicle households remained constant.

$$T = (PT_2 - PT_0) * OCC_0 * HH_0$$

Where,
T = Annual one-way transit passenger-trips
PT_2 = Annual trips per person in two-vehicle households
PT_0 = Annual trips per person in zero-vehicle households
OCC_0 = Average number of occupants in zero-vehicle households
HH_0 = Number of zero-vehicle households

Mode Share Method

Within urban counties in the region, a generalized estimate of potential transit ridership can be developed by assuming and applying a mode share percentage to the total number of trips taken. According to data from the 2001 National Household Travel Survey, 2.1% of all trips in urban areas nationwide are made using mass transit modes. For urban counties, the Mode Share method was used to estimate the demand for transit that would correspond to 1%, 2% or 3% of all person-trips.

The ISTDM was used to calculate the number of transit trips in 2007 that would correspond to a 1%, 2% or 3% mode share in each urban county (the total number of person-trips in each county in 2007 was estimated by interpolating between the modeled years 2000 and 2030). The number of trips with at least one trip end in a county was counted for each county. Weekday trips in the ISTDM were converted to annual trips by multiplying by 260.

Comparison of Methods

For rural counties, the APTNA method generally provides the lowest estimate of transit demand. It uses a model that estimates the trip-making characteristics of those most likely to use demand-responsive systems in rural areas. This method is likely to underestimate demand in counties where even limited scheduled service could be supported. The WSDOT

method provides a better demand estimate for counties with this situation, as the peer systems from which this model was derived did include some scheduled transit service. The Mobility Gap method provides the highest estimate of transit demand in rural counties because it assumes that transit would provide sufficient service to enable individuals without vehicles to make as many trips as individuals in two-vehicle households. Providing this level of mobility should probably be considered an upper limit goal for transit service in rural counties.

In urban areas, however, transit should strive to meet the needs of some choice riders (travelers with a choice of modes) in addition to serving transit dependent riders. For this reason, the mobility gap estimate could be interpreted as a minimum goal for transit ridership in urban areas. In Indiana's urban counties, the Mobility Gap method provides an estimate of transit demand that generally falls between 1.5% and 2.5% of all person-trips. This corresponds with the average of 2.1% mass transit mode split in U.S. urban areas. The Mobility Gap method identifies higher transit demand in counties that have a high number of zero-auto households, including Lake, Vanderburgh, Vigo, and Wayne counties. On the other hand, suburban counties (such as Dearborn, Porter, Warrick, and the ring counties surrounding Indianapolis) tend to have fewer zero-auto households, and therefore have lower mobility gaps.

For the purposes of this study, it was determined that the best use of resources was to invest in transit to a level that would at least begin to generate the benefits realized by other systems. By targeting an urban mode share of 1.5%, which is the lower end of the Mobility Gap Method, transit systems will be generating the double-digit mode splits during peak hours in specific corridors needed for transit to be most effective and yield the most benefit. Even though financial constraint was not a consideration during this analysis, the 1.5% mode share target is more than 300% of the existing mode share in Indiana urban areas and constitutes a very aggressive program.

The primary issue for rural transportation is that there a number of trips that cannot be made by individuals either because they are ineligible for human service agency transportation or an automobile is not available. The 0.8% target for rural areas is also based on other system experience and it correlates to the provision of these trips that cannot be completed because service is unavailable. The target may be harder to achieve, because in rural areas the trips are longer and there is less opportunity to combine trips. Significant increases in service, broadened eligibility requirements and improved coordination with human service transportation providers will create the critical mass of trips needed to increase the cost effectiveness of service and generate the mobility benefits realized in other systems.

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[1] These maps may underestimate housing densities because they do not reflect development that has occurred since 2000 and because densities are calculated based on the total area of each census block (which includes all types of land uses) rather than just the area occupied by housing.

[2] Data on the square footage of commercial and office space in these employment centers is not readily available, so a direct correlation with the thresholds presented in Table 1 cannot be made. The maps can only be used to identify general areas of high employment concentration.

[3] This analysis used an ISTDM highway network dated May 9, 2005, and the ISTDM model script developed for TransCAD 4.8. The model runs were based on the 2000 base year and 2030 Long Range Plan highway networks in the ISTDM. Congestion was defined using the POST_ALT procedure in the ISTDM, identifying all facilities with a Level of Service E or F.

[4] These flows are based on model runs utilizing the existing transportation network for the year 2000 and including INDOT Long Range Plan projects for the year 2030.
[5] "Arkansas Public Transportation Needs Assessment and Action Plan, Final Report," submitted to the Governor's Task Force on Public Transportation Issues; SG Associates, Inc.; C. M. Research, Inc.; Leigh, Scott, & Cleary, Inc.; and Bear West; Arkansas, August 1992.

[6] "Northwest Arkansas Transit Assessment Study," Melissa S. Tooley, J.L. Gattis, and A. Watts, Northwest Arkansas Regional Planning Commission, March 2000.

[7] "Demand Forecasting for Rural Transit," K.M. Painter and K.L. Casavant, Washington State Transportation Center, Washington State University, Pullman, June 1999.

[8] *2006 Indiana Public Transit Annual Report*, Indiana Department of Transportation, Indianapolis, August 2007.

Appendix C
Indiana Mass Transit Studies
PL 203-2007

Indiana Department of Transportation
December 2008

Appendix C
Central Indiana

Central Indiana is the most dense and dynamic area of the State, and borders four of the other five regions (except Northwest Indiana). All eleven counties in the Central Indiana region are categorized as urban counties.

C.1 Economic Trends

Population

The largest city in the State (and its Capital) is Indianapolis, which has grown to reach nearly 800,000 inhabitants. The surrounding suburban areas have been among the fastest growing portions of the State.

Overall population growth has increased significantly in this region compared to the remainder of the State. Proportionally, this is the only region which is increasing its share of the State's population.

Major Cities or Towns (>30,000 population)

	2000 Pop.	2007 Pop.
Indianapolis	782,244	795,458
Bloomington	71,597	72,254
Fishers	39,069	66,080
Muncie	68,095	65,410
Carmel	53,059	64,400
Anderson	59,702	57,311
Greenwood	36,719	46,389
Lawrence	39,090	42,736
Noblesville	29,805	41,561

Population Changes, 1990 - 2010

	Regional Population	% of State	State Population
1990	1,609,128	29.0%	5,544,156
2000	1,847,279	30.4%	6,081,939
2007 (estimate)	2,018,727	31.8%	6,345,289
2010 (projection)	2,077,104	32.4%	6,417,198
% change (1990 - 2000)	14.8%	n/a	9.7%
% change (2000 - 2010)	12.4%	n/a	5.5%

Income & employment

Overall, this region also contains the State's largest workforce, lowest unemployment rate, and highest per capita income. Manufacturing makes up a relatively small proportion of the

Labor Force Data, 2006

Resident Labor Force	1,054,254
Unemployment Rate	4.6%
Per Capita Personal Income	$36,175
10-year adjusted change	15.2%

employment, almost half the State average. This is the only region which experienced over 10% job growth between 1996 and 2006—in fact, this is double the rate of the region with the next highest growth (Southeast Indiana at 5%).

Figure 2 shows the general location of major employment areas in the region, based on the year 2000 employment data available in the ISTDM.

Total Employment

		% of Region
Total Covered Employment - BLS (2006)	986,818	
Manufacturing	116,493	11.8%
Professional/Technical Services	44,081	4.5%
10-Year % Change	10.2%	

Land use & development

The population density in this region is double that of any other in the State.

In 2006, more than 40% of the residential building permits in the State were issued in this Central region.

Residential Density & Development

Land Area (sq mi)	4,311
Population Density (2007)	468
Residential Building Permits (2007)	9,235
Residential Building Permits (2006)	12,296

Figure 1 shows housing unit densities across the Central Indiana Region.

Sub-Regional Trends

- The growth in the Indianapolis and Bloomington metro areas overshadows the significant population and employment declines in Anderson and particularly Muncie.
  - Anderson and Madison County have experienced severe employment declines directly related to the loss of auto manufacturing activity. In Madison County (Anderson), manufacturing jobs have fallen from over 12,000 in 1998 to only 5,901 in 2006. These losses have contributed to a decline across all sectors in the County, and the area is projected to continue its employment and population losses in the future.
  - Muncie and Delaware County have been hit by manufacturing job and population losses for nearly two decades, but projections show this trend slowing.
- Bloomington has experienced population and employment growth as of late, and has in particular outpaced national averages in its increase of manufacturing and service-sector output (U.S. BEA, 2005 data).

- The Indianapolis-Carmel metro area is expected to continue to be an economic engine for the State, and features the State's most diversified employment base, being the least reliant on agriculture and manufacturing.
- The suburban areas of Indianapolis contain the fastest-growing cities in the State, in particular areas to the north (Fishers/Noblesville) and west (Avon/Plainfield/ Brownsburg).
- The City of Indianapolis has continued steady, stable growth, unlike many of the largest cities in the State.

C.2 Transit Needs Assessment

Two approaches were used to assess transit demand in the Central Indiana Region. The first approach was to identify areas in the region where scheduled, fixed-route transit service is likely to be supported by local conditions, such as population and employment density and roadway congestion. This approach helps to identify areas where land use patterns could support higher investment in mass transit infrastructure in order to supplement roadway capacity and provide realistic transportation alternatives for travelers that have a choice of mode. The second approach was to develop quantitative estimates of potential transit ridership for all counties in the region based on theoretical estimates of unmet demand. This second approach will support the establishment of mass transit service and investment goals for the region. A detailed description of the methods used to assess regional transit demand is provided in Appendix B.

In addition to land use information, regional travel demand and traffic congestion information were used to help identify transit-supportive areas. This information was obtained from the Indiana Statewide Travel Demand Model maintained by INDOT.

Figure 3, shows congested highway corridors in the region. Congested roadway corridors can be found in each county of the region currently, with the heaviest congestion in Marion, Hamilton, Hendricks, and Johnson counties, and in the Anderson, Bloomington, and Muncie areas. By 2030, the number of congested roadways in this region is projected to grow, with significant congestion growth in Hamilton, Hendricks, and Johnson counties.

Figure 1 – Residential Density in Central Indiana

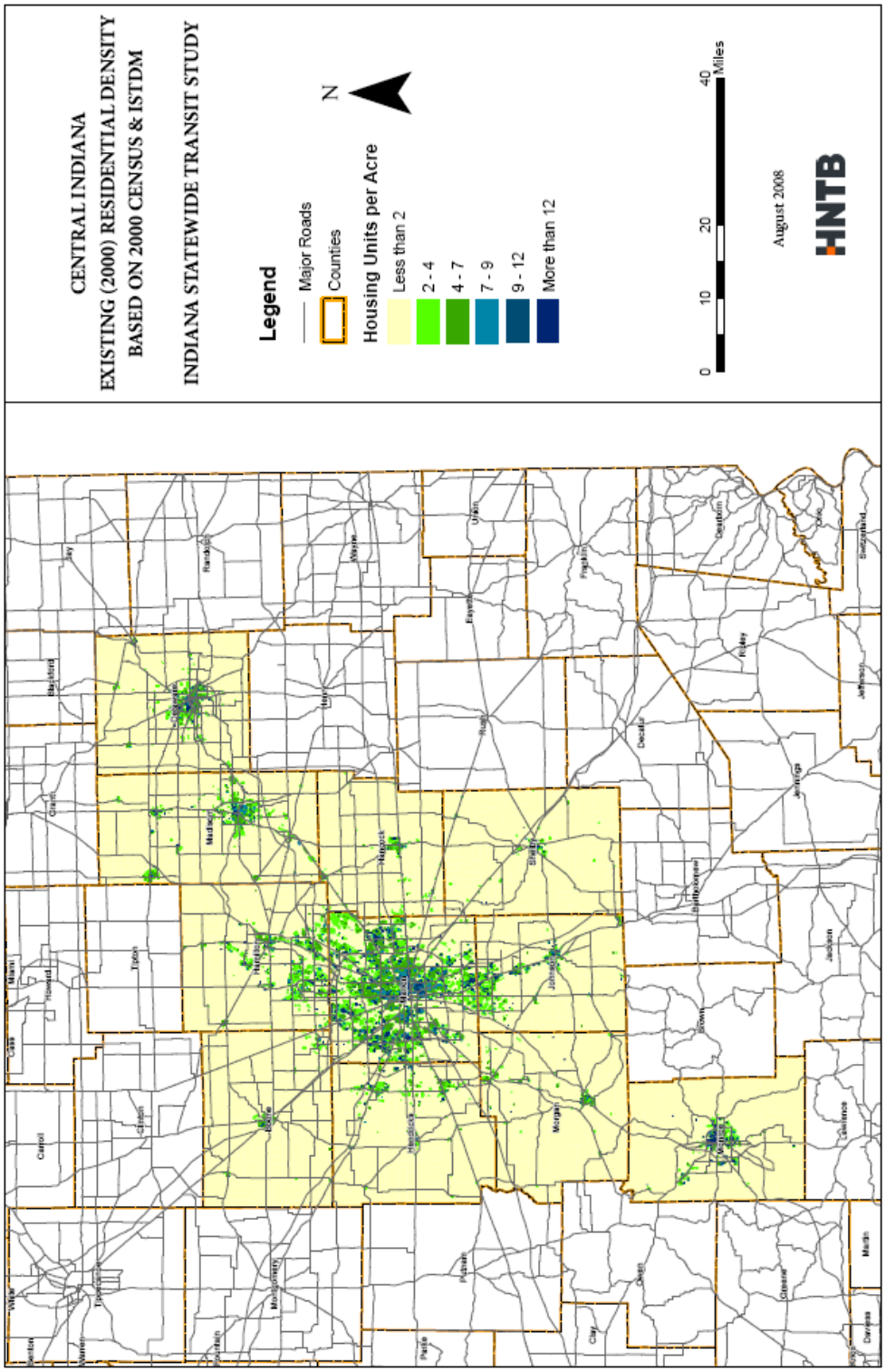

Figure 2 – Employment Centers in Central Indiana

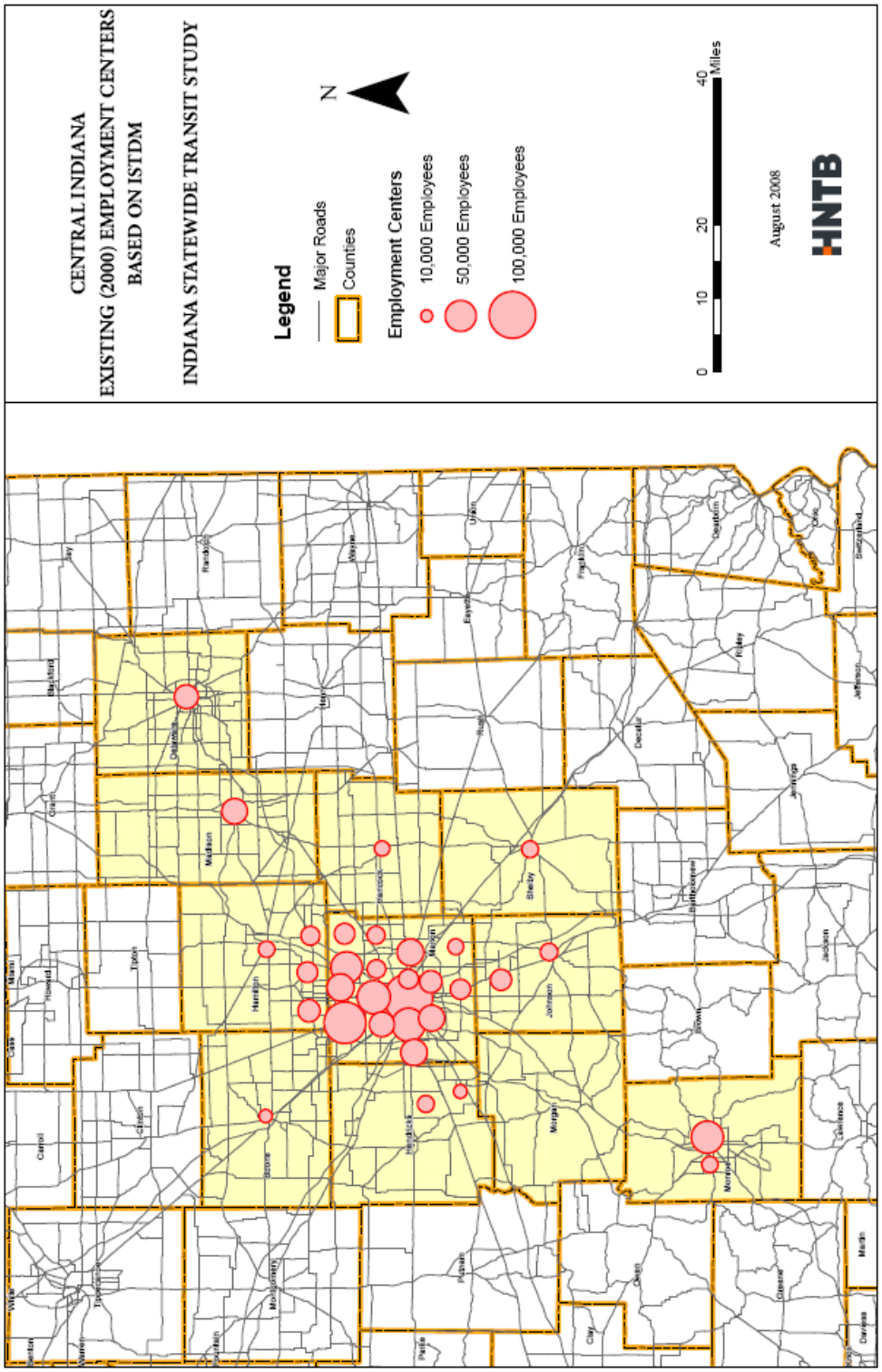

Figure 3 – Congested Corridors in Central Indiana[1]

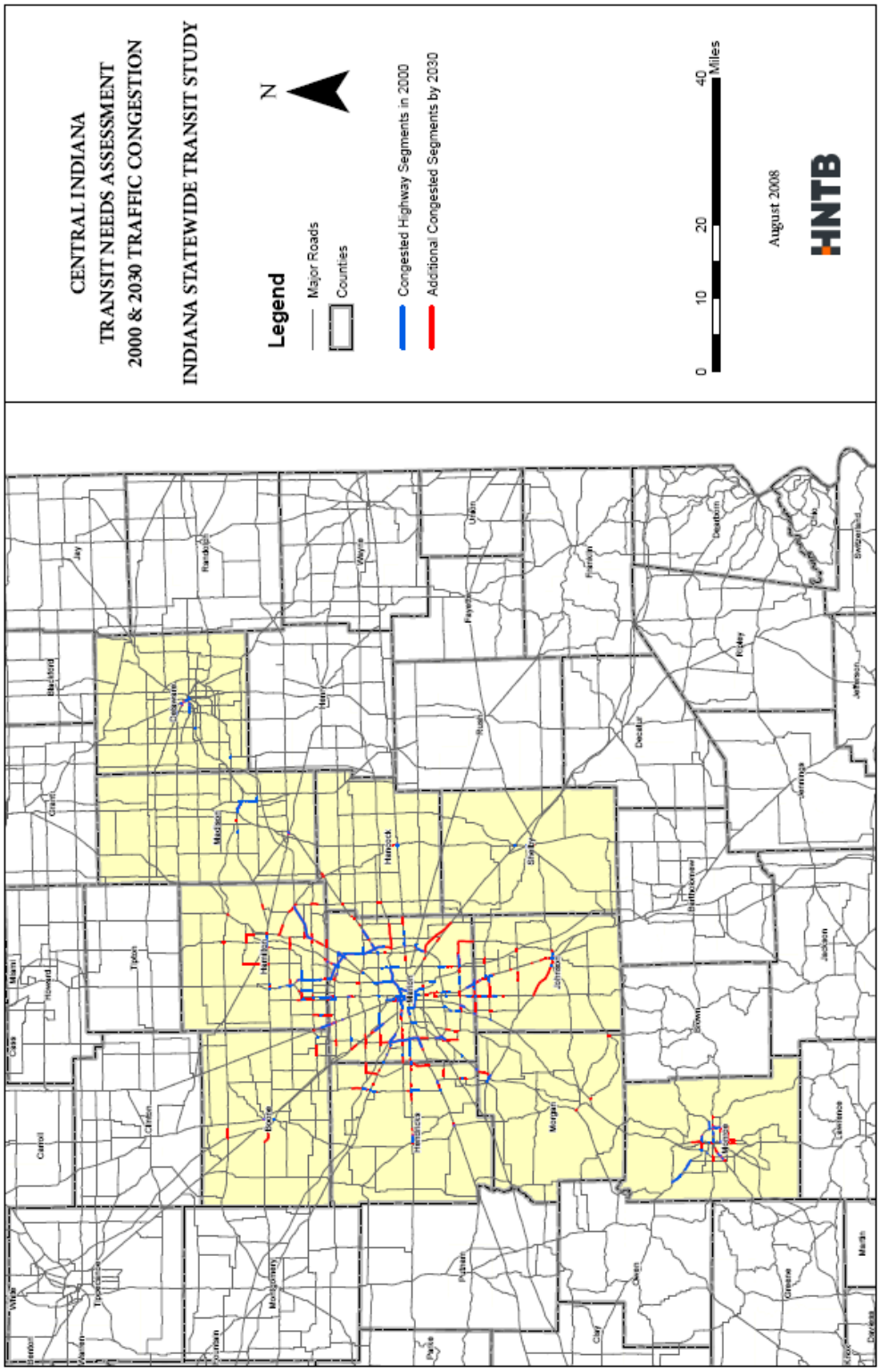

Figure 4 – Trips Patterns in Central Indiana

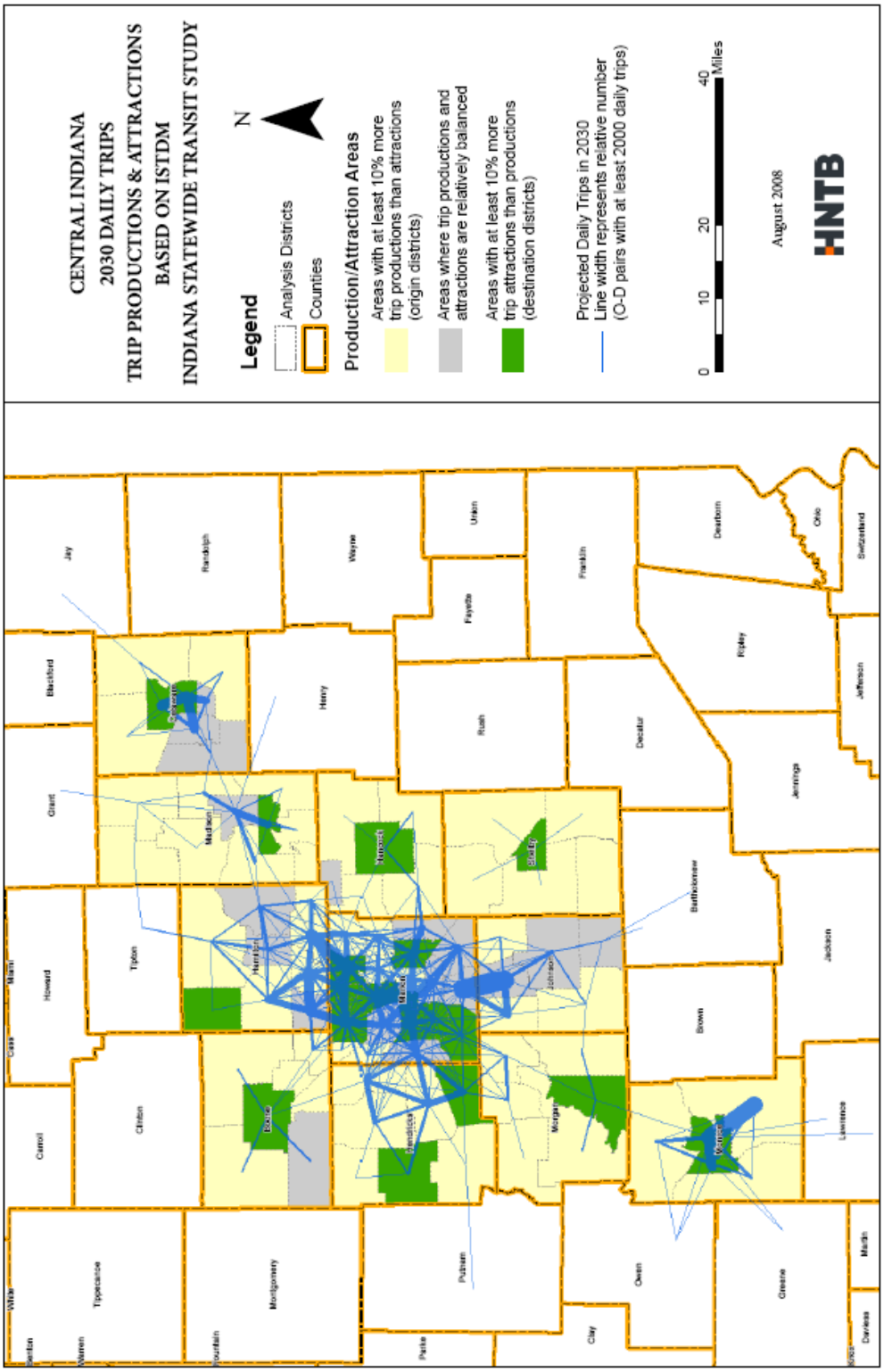

Figure 4 displays projected trip patterns within the Central Indiana region for the year 2030. The table below shows projected major trip flows between counties in the region for all modes of transportation in 2030.

2030 Projected Inter-county Trips in Central Indiana

Counties	Daily Person-trips between Counties (2030 Projection)
Hamilton & Marion	754,000
Johnson & Marion	421,000
Hendricks & Marion	346,000
Hancock & Marion	148,000
Marion & Morgan	88,000
Boone & Marion	87,000
Hamilton & Madison	68,000
Boone & Hamilton	58,000
Hendricks & Morgan	55,000
Delaware & Madison	47,000
Bartholomew & Johnson	41,000
Hamilton & Hancock	41,000
Johnson & Morgan	36,000
Marion & Shelby	30,000
Madison & Marion	30,000
Monroe & Owen	30,000
Monroe & Morgan	28,000
Lawrence & Monroe	27,000

Quantitative Demand Estimates

Two methods were used to develop quantitative estimates of transit demand in the Central Indiana Region. The Mobility Gap method estimates the transit trips that would result if all zero-auto households in the region were to take as many trips as two-auto households. The Mode Split method estimates the number of transit trips that would be taken if transit were to serve 1%, 2% or 3% of the total trips in the region. These methods are described in detail in Appendix B.

Recognizing the theoretical nature of area-wide transit demand estimates and the influence of specific local conditions on demand, both methods were used to identify a potential range of transit need. The result is a range of demand estimates from low-end estimates of demand for basic service to high-end estimates of demand for high-quality service. This range is best interpreted as an "order of magnitude" demand estimate for transit service in the region. Ultimately, more definitive transit demand estimates must reflect local conditions.

The table below summarizes the results of the demand estimation for the counties in the Central Indiana region in 2007. The number of transit trips provided in the region in 2006, as obtained from the 2006 Indiana Public Transit Annual Report, is also shown for reference[2]. Depending on the method used, demand for transit service in the Central Indiana Region was estimated to be between 28,266,000 and 84,800,000 annual one-way trips in 2007. Transit providers in the region collectively served approximately

14,850,000 one-way trips in 2006, which met between 18% and 53% of the estimated regional demand. Transit trips in Bloomington and Muncie reflect service productivity at the respective universities.

Estimated Transit Demand for Central Indiana Region

Area	Estimated 2007 Population	2006 Annual Transit Trips	2007 Transit Demand (Annual Trips)			
			Mobility Gap Method	For 1% Mode Share	For 2% Mode Share	For 3% Mode Share
Indianapolis Metro	1,643,400	10,161,000	41,267,000	23,457,000	46,914,000	70,371,000
Anderson Metro	131,300	189,000	3,521,000	1,587,000	3,175,000	4,762,000
Bloomington Metro	128,600	2,401,000	3,773,000	1,680,000	3,360,000	5,040,000
Muncie Metro	115,400	2,099,000	3,178,000	1,542,000	3,085,000	4,627,000
Urban Total	2,018,700	14,850,000	51,739,000	28,266,000	56,534,000	84,800,000
Regional Total	**2,018,700**	**14,850,000**	**Lowest estimate: 28,266,000 (53% of need is met)** **Highest estimate: 84,800,000 (18% of need is met)**			

Based on the information in Figures 1 through 4 and the estimated demand, it is possible to identify areas with characteristics that generally support fixed-route transit service. In the Central Indiana region, the areas most likely to sustain this type of service are: Marion County; southern and central Hamilton County; eastern Hendricks County; northern and central Johnson County; northeastern Morgan County; and the Anderson, Bloomington, and Muncie areas.

C.3 Regional Plans & Programs

IndyGo provides fixed-route bus service within Marion County and a small portion of the City of Greenwood in Johnson County. Through a Congestion Mitigation/ Air Quality grant, IndyGo also operates express bus service between downtown Indianapolis and Fishers and Carmel in Hamilton County. The existing IndyGo service consists primarily of radial routes that converge on downtown Indianapolis. IndyGo has plans to develop a downtown bus transfer facility to improve operations and simplify bus transfers. The Indianapolis MPO developed a Comprehensive Operational Analysis (COA) for IndyGo that calls for increased service in Marion County, including new cross-town routes, and expansion of local service into nearby suburban areas in surrounding counties. The COA also calls for additional park-and-ride oriented express bus routes, connecting downtown Indianapolis with Fishers, Noblesville, Carmel, Westfield, Zionsville, Brownsburg, Avon, Plainfield, Mooresville, the airport,

Greenwood, Greenfield, and Lawrence. As mentioned, this express service has been initiated for Fishers and Carmel, with Greenwood to follow soon.

In the Indianapolis area, the MPO is also studying possible corridors for rapid transit, such as commuter rail, light rail, or bus rapid transit. Seven general corridors have been identified, radiating out from downtown Indianapolis toward the northeast (Fishers/Noblesville), north (Carmel/Westfield), northwest (Zionsville), west (Avon), southwest (Plainfield/airport), south (Greenwood), and east (Cumberland). The MPO recently selected commuter rail (convertible to diesel light rail in the future) in the northeast corridor as the preferred alternative for the first segment of this system.

The Bloomington area is served by Bloomington Transit, the IU Campus Bus, and Rural Transit. Bloomington Transit operates nine regular bus routes within the Bloomington city limits. The IU Campus Bus provides service on the IU campus and between the campus and remote parking sites. Rural Transit is a demand response transit service covering areas of Monroe County outside the City of Bloomington. The Bloomington MPO Long Range Plan calls for several improvements to transit in the area, including additional Sunday and evening service, increased service frequency, expansion of service to growth areas surrounding the City of Bloomington, expansion of cross-town service, addition of a downtown circulator, creation of park-and-ride facilities, vehicle and facility upgrades, and the development of a regional transit authority.

The Muncie Indiana Transit System (MITS) provides bus service within the City of Muncie. MITS operates fourteen routes, with service on weekdays and Saturdays. The MITS system is radial, with all routes converging on a transfer center in downtown Muncie. Service outside the City of Muncie is provided by the New Interurban, which offers route-deviation service between locations in Delaware, Jay, and Randolph counties. The Muncie MPO Long Range Plan calls for the maintenance and expansion (as needed) of the MITS system in the urban area and the expansion of New Interurban service in the rural area, as well as suggesting potential future rail transit service.

In the Anderson area, fixed-route urban bus service is provided by the City of Anderson Transit System (CATS), while rural and inter-urban service in Madison County is provided by TRAM. CATS operates six bus routes, six days per week, within the developed parts of the City of Anderson. Future transit improvements in this area could include improved service frequency or hours of service, and potential future rail transit service to Indianapolis.

Existing transit service plus planned improvements in the Central Indiana Region generally provide good geographic coverage of the transit-supportive areas identified in this study. This region has the highest potential transit demand of any region in the state, and it contains areas of dense population and employment and highway congestion. Yet, the existing transit services in the Indianapolis metro area meet a relatively low percentage of regional travel demand, with only a 0.4% mode share. In contrast, Bloomington and Muncie have transit mode shares around 1.4%. Put another way, although the Bloomington area has only 8% of the population of the Indianapolis metro area, it serves 24% as many transit riders on a daily basis.

These systems demonstrate the relationship between ridership and service levels. The Bloomington and Muncie systems have higher ridership potential due to the presence of large student populations. These higher ridership levels have encouraged local operators to provide good transit service, which encourages even higher ridership. The opposite effect is seen in the Indianapolis Region, where it is commonly accepted that transit has been underfunded for an extended period. Service levels have been poor compared to similar sized communities, resulting in low ridership, which has prompted further cuts in service.

Planned improvements to the bus system and development of a rapid transit system in the Indianapolis area will reduce the gap between the potential demand for service in this region and the level of service provided for potential riders. The result should be a significant change in ridership, placing Central Indiana closer to the mode share expected for a region of this size and density.

Rural/suburban demand-response service is currently provided in Delaware, Madison, Hancock, Shelby, Johnson, Morgan, Hendricks, Boone, and Monroe counties, and in the City of Noblesville.

C.4 Potential Transit Implementation based on Peer Systems

Central Indiana is the most densely populated and fastest growing region in the State, and offers the highest potential for new transit investment and thus impacts from transit.

Expanded bus and added rapid transit service in Indianapolis metropolitan area

Description of Potential Service: More frequent bus service as well as investment in rapid transit (e.g., light rail or bus rapid transit) would provide a more desirable transit system in the Indianapolis region. Rapid transit is planned for key urban/suburban corridors such as the northeast corridor toward Fishers and Noblesville. Additional corridors for service are under study, and could include a southern service to Greenwood.

Parallels from Peer Systems:

Peer systems analyzed for the Indianapolis region include Charlotte, Dallas, Denver, Minneapolis, Pittsburgh and Salt Lake City.

- Social/Demographic: In Charlotte, the Northeast Corridor LRT is an extension of the existing LYNX line into Charlotte's center city, and is expected to serve 8,100 weekday trips upon opening in 2012. Project planning analysis of the project shows that this includes 2,300 transit dependent riders per day. In Salt Lake City, the Mid Jordan LRT line, a $550 million, 10.6-mile extension of the existing TRAX system, would serve a number of growing suburban communities and provide a direct connection to the central business district and the University

of Utah. It is anticipated that the system will serve 5,300 weekday boardings by 2010, with 1,349 transit dependents using the line daily.

- Economic Growth: Denver's light-rail system is helping maintain the downtown as a center of employment and employment growth. As of 2005, there were 131,937 jobs in Denver's Central Business District. This represented 9% of the overall regional employment base. By 2030, this figure is projected to reach more than 200,000, as the downtown is expected to maintain its proportional share of growth in the regional employment market, unlike many major urban downtowns.
- Environmental Quality: The Dallas region is a moderate non-attainment area for the eight-hour ozone standard. The $1.4 billion, 21-mile LRT extensions to the northwest and southeast are anticipated to reduce key precursors such as nitrogen oxide by 56 tons per year and volatile organic compounds by 33 tons per year. The project is also projected to reduce carbon dioxide emissions by more than 19,000 tons annually.
- Congestion Mitigation: The number of congested highway lane-miles in the seven-county Minneapolis-St. Paul region grew from 156 in 1997 to 305 in 2007. The number of severely congested lane-miles grew from 24 to 82. In its 2030 Plan, the region aims to grow the transit system and transit trips at a rate (3% per year) higher than growth in vehicle usage and congestion (<1% per year). Modeling shows that this can be accomplished by not only investing in transit, but also by making the function of the existing highway corridors more efficient.
- Land Use & Development: The investment in streetcar lines in Charlotte has helped generate higher-density, transit-oriented development activity, many times even before the actual transit line is in place. Since the announcement of two planned streetcar services (along Beatties Ford Road and Central Avenue emanating from the central city), the corridors have experienced an uptick in dense, mixed-use development. A study of TOD potential over the next 25 years estimates that there is potential for an added $1.5B in residential, office, and institutional development in the two streetcar corridors.
- Land Use & Development: In Dallas, property values are up nearly 25% for office properties adjacent to existing LRT stations in Dallas, compared to 11.5% increase in property generally in region. Significant new urban/TOD development around planned stations. System wide the total value of development projects attributable to DART Stations reached $4.2B between 1999 and 2007, with acceleration in development occurring in recent years.

Impacts from Indianapolis rapid transit investment(s)

- Social/Demographic: Rapid transit services will improve access and travel times to employment for numerous transit dependent populations, including seniors and low-income households. Expanded bus service and corridors will help serve point-to-point trips for work and shopping trips.
- Economic Growth: Service to downtown Indianapolis will improve prospects for continued employment growth throughout the city, and downtown in

particular. The region is currently the most dynamic growth environment for the entire State, and transit would support its continued development.

- Environmental Quality: Rapid transit projects attract higher proportions of the "choice" riders which will help reduce automobile trips and thus auto-based air pollutants in the Indianapolis region, which is currently a non-attainment area.
- Congestion Mitigation: Likely to reduce rate of growth in congestion, particularly along the adjacent highway and expressway corridors.
- Land Use & Development Potential for land development will be expanded at station locations throughout the line.

Indianapolis commuter rail service to Muncie and Bloomington corridors

Description of Potential Service: These commuter rail services would connect downtown Indianapolis with other major cities in the Central Indiana region, functioning as a peak period commuter train for service into the employment, government, entertainment and tourism hub of Indianapolis. The service would also connect the Indianapolis metropolitan area with two major state universities.

Parallels from Peer Systems:

Peer systems analyzed for the Indianapolis region include Charlotte, Dallas, Denver, Minneapolis, Pittsburgh and Salt Lake City.

- Social/Demographic: In Denver, regional forecasts show that the proportion of people dependent on transit for mobility (elderly, young and disabled persons as well as low-income households) is projected to grow between now and the year 2030. Analysis of the 2030 RTP shows that the share of the population within environmental justice areas (areas with concentrated low-income or minority populations) that lives within a 45-minute transit trip of 100,000 jobs will increase from 58% to 86%. This is due to the broad investment in light rail transit being undertaken in the region, which provides faster transit connections.
- Economic Growth: In Dallas-Ft. Worth, the growth in economic activity due to transit investment is not confined to the region. A 2007 Study by the University of North Texas Center for Economic Development and Research claims that the $4.86 billion cost of the DART light rail system is generating more than $8.1 billion in economic activity statewide.
- Environmental Quality: Minneapolis-St. Paul region is designated as a maintenance area for the carbon monoxide, which means it has recently become an attainment area. The Northstar Corridor, a $307 million commuter rail line running north from Minneapolis, is projected to reduce Carbon Monoxide emissions by 742 tons annually compared to the baseline alternative. The service is also anticipated to reduce carbon dioxide by nearly 19,000 tons per year.
- Congestion Mitigation: The number of congested highway lane-miles in the seven-county Minneapolis-St. Paul region grew from 156 in 1997 to 305 in 2007. The number of severely congested lane-miles grew from 24 to 82. In its 2030 Plan, the region aims to grow the transit system and transit trips at a rate (3% per year) higher than growth in vehicle usage and congestion (<1% per year).

Modeling shows that this can be accomplished by not only investing in transit, but also by making the function of the existing highway corridors more efficient.

- Land Use & Development: The development around DART's Mockingbird Station in Dallas has become a national model for transit-oriented development. Since development of a train station, this reclaimed industrial area has seen the construction of an urban village consisting of 211 loft-style apartments, 150,000 sq ft of office space, a film theater, and 183,000 sq ft of retail. The result is a new entertainment, residential and employment node on the northeast side of the City.
- Land Use & Development: Since the development of its rail system, the Denver region has seen a sharp increase in planned residential and retail TOD activity. Expected to increase from 1,110 residential units per year since 2000, to 4,600 units per year 2008-2010. Retail TOD development is expected to double. Office development is expected to be nearly 2.4M sq ft per year 2008-2010, exponentially higher than previous.

Impacts from Central Indiana commuter rail investment(s)

- Social/Demographic: Rapid transit services will improve access and travel times to employment for numerous transit dependent populations, including seniors and low-income households.
- Economic Growth: Service to downtown Indianapolis will improve prospects for continued downtown growth in Indianapolis, which is one of the key growth environments for the entire state.
- Economic Growth: Major universities are increasingly an important economic growth generator in State economies, and commuter rail service will connect these metropolitan areas with the cultural and governmental hub of Indianapolis.
- Environmental Quality: Commuter rail, which is particularly effective at reducing auto travel, will reduce automobile-based air pollutants in the Indianapolis region.
- Congestion Mitigation: Experiences from other States indicate that commuter rail will reduce the rate of growth in congestion, particularly along the adjacent highway and expressway corridors.
- Land Use & Development Potential for land development will be expanded at station locations throughout the line, particularly for portions of the corridor outside of Indianapolis.

Bloomington & Muncie bus service expansions & downtown circulator(s)

Description of Potential Service: Expansion of the coverage area and service levels for the Bloomington area have been planned, as well as the creation of a circulator service that would operate in the downtown. Bloomington is home to Indiana University, which has driven economic growth in the region. Muncie is home to Ball State University, and the Muncie Indiana Transit System has plans to expand its service offerings in the area, which currently include a number of fixed-route buses which converge on a downtown transit center. Each of these systems has the long-term potential of connecting to commuter rail service to Indianapolis.

Parallels from Peer Systems:

Peer systems analyzed for Bloomington and Muncie include Champaign (IL), Fort Collins (CO) Chapel Hill (NC), and Lafayette/West Lafayette.

- Social/Demographic: Due to the presence of large student populations, college/university towns often have very high poverty rates and thus very high proportions of transit dependent populations. Due to its large student population in Chapel Hill, Orange County has the highest poverty rate of any county in the Raleigh-Durham metropolitan region. This group allows for more flexible and well-utilized transit systems.
- Social/Demographic: In university/college towns, the social group which drives transit usage is the people who work at or attend the institution. In 1990, the University of Illinois and the Champaign-Urban Mass Transit District (MTD) began a partnership where students and faculty were given unlimited access to bus services in exchange for a mandatory student fee. This effectively tripled annual usage of the system immediately, and ridership has continued to grow since. A dramatic fall-off in ridership occurs during the summer months when school is not in session. An on-board rider survey of MTD routes shows that students make up 96% of ridership on the campus routes and 66% of ridership on the city routes. Overall, trips to and from work make up only 1/3rd of trips on city routes.
- Economic Growth: Indiana University has helped to drive economic growth in Bloomington, and transit systems can help to bolster that growth. The City of Chapel Hill is the only portion of the Durham region where employment growth is expected to outpace population growth. The areas of growth are slated to occur around the hospital and to the north of the campus.
- Congestion Mitigation: It is estimated that the transit system in Lafayette (operated by CityBus) reduces annual highway/road trips by 2.3 million, which translates to 10.3 million vehicle miles travelled (VMT). This also reduces air pollutants in the region.
- Land Use & Development: The Wabash Trolley has had a clear impact on property values and economic development in downtown Lafayette. Passenger surveys on the service indicate that 68% agree that the service makes it more likely that they would travel to downtown Lafayette, and 78% claimed that the existence of the trolley was a positive factor in determining where they live.
- Land Use & Development: The Mason Street Corridor project in Fort Collins (an express fixed-route bus line through the City) has been combined with a redevelopment strategy which has identified key sites near the Drake Road Station and South Transit Center for transit-oriented development. The early identification and planning for impacts prior to the implementation of transit can be a key stimulus for achieving the positive development benefit.

Impacts from bus system expansion in Bloomington and Muncie

- Social/Demographic: Likely to improve access to jobs for numerous transit dependent populations, including students.

- Economic Growth: Transit service will support growth in the Bloomington region, which is currently contributing to positive economic and employment growth in the State.
- Environmental Quality: Will reduce automobile-based air pollutants if transit local bus routes are well utilized.
- Land Use & Development Downtown circulator likely to improve the attractiveness and value of property in the downtown area.

Anderson bus service expansions

Description of Potential Service: Anderson bus service currently consists of six fixed routes. Expansion of the frequency and coverage of this service will meet additional transit needs identified for the region.

Parallels from Peer Systems:
Peer systems studied for the Anderson area include Traverse City (MI), Paducah (KY), and Florence (SC).

- Social/Demographic: The Florence area has higher poverty levels than the state of South Carolina as a whole, with levels over 16% in Florence County. Many of these residents live in rural portions of the region. The regional transit agency, Pee Dee Regional Transit Authority (PDRTA) has made a deliberate shift away from standard fixed-route services and to more targeted demand-response or other services intended to match workers to jobs. This has resulted in more efficiency and improved ridership.
- Economic Growth: The trolley service in downtown Paducah is specifically designed to connect tourism and entertainment resources in the City, and has been successful in supporting this growing portion of the regional economy.
- Economic Growth: A review of the economic impacts of tourism estimated that visitors to the Traverse City area sustained 807 jobs in transit and ground passenger transportation in Grand Traverse County. Tourism is a major source of economic value in Traverse City.

Impacts from expanded bus service in Anderson

- Social/Demographic: Expanded service will help provide seniors and sensitive populations with work, shopping and recreational trips.
- Environmental Quality: Use of the bus system by more "choice" riders will help reduce air pollutant emissions in the region.

Downtown Indianapolis

Description of Potential Service: A new fixed guideway investment, like streetcar, serving downtown Indianapolis would connect many of the state government and tourism locations in the area, and offer the opportunity to enhance development and growth in the Central Business District. A small system serving IUPUI and the Zoo is under consideration currently.

Parallels from Peer Systems:

Peer systems analyzed for the Indianapolis region include Charlotte, Dallas, Denver, Minneapolis, Pittsburgh and Salt Lake City.

- Economic Growth: Denver's light-rail system is helping maintain the downtown as a center of employment and employment growth. As of 2005, there were 131,937 jobs in Denver's Central Business District. This represented 9% of the overall regional employment base. By 2030, this figure is projected to reach more than 200,000, as the downtown is expected to maintain its proportional share of growth in the regional employment market, unlike many major urban downtowns.
- Land Use & Development: The investment in streetcar lines in Charlotte has helped generate higher-density, transit-oriented development activity, many times even before the actual transit line is in place. Since the announcement of two planned streetcar services (along Beatties Ford Road and Central Avenue emanating from the central city), the corridors have experienced an uptick in dense, mixed-use development. A study of TOD potential over the next 25 years estimates that there is potential for an added $1.5B in residential, office, and institutional development in the two streetcar corridors.
- Land Use & Development: In Dallas, property values are up nearly 25% for office properties adjacent to existing LRT stations in Dallas, compared to 11.5% increase in property generally in region. Significant new urban/TOD development around planned stations. System wide the total value of development projects attributable to DART Stations reached $4.2B between 1999 and 2007, with acceleration in development occurring in recent years.

Impacts from downtown Indianapolis fixed guideway

- Economic Growth: Will improve tourism, employment, and development prospects for downtown Indianapolis.
- Land Use & Development: These investments improve the value of adjacent property, and add potential for additional residential and employment redevelopment in the downtown. In the first two years after the opening of the River Rail streetcar in downtown Little Rock, more than $260 million in private and public projects were started within two blocks of the line.

Increased Demand Response Service throughout the region's rural areas

Description of Potential Service: The needs assessment for the region showed that there is still unmet demand for transportation services in the rural areas. The introduction of county-wide demand response service into Hamilton County (above and beyond what the human service agencies are providing), as well as expanded service in the other counties will be instrumental in moving toward meeting demand.

Impacts from increased Demand Response service:

Improvement to rural demand response service provides increased mobility and quality of life for transit dependent populations that do not qualify for human service agency

sponsored services. Increased transportation for these populations provides the following benefits.

- Increased access to employment for low-income populations which allows less reliance on other government programs. The Virginia Transit Association finds that providing access for one disabled individual to employment saves $7,000 per individual per year in in-home services.
- More consistent access to medical coverage which improves overall health for the individual, but can also save the county (jurisdiction) money due to reduced emergency rooms visits, usage of emergency services and need for in-home or other specialized medical services sponsored by the county. The Virginia Transit Association finds that providing transportation to elderly individuals helps reduce the reliance of other publicly sponsored services.

Cost of In-Home Services to Elderly (Virginia Transit Association)

Service	Average costs annually	Cost per recipient
Home meals	$3.4 million	$385 per recipient
Home health services	$8.6 million	$959 per recipient
Adult day care	$1.3 million	$3,634 per recipient
Personal care	$74.3 million	$7,434 per recipient
Nursing facility care	$393.3 million	$14,241 per recipient

C.5 Stakeholder/Poll Regional Summary

A considerable amount of momentum has recently been generated within Central Indiana for the increases in transit service. The Northeast Corridor between Noblesville and Indianapolis is about to enter the FTA New Starts project development process. There is potential for the introduction of fixed guideway in Downtown Indianapolis and as part of PL 203 (the legislation enabling this study) feasibility studies were conducted on the potential for commuter rail between Indianapolis, Bloomington and Muncie.

Stakeholders in the region are excited about the potential benefits of transit in terms of the economic development, environmental impacts and improvement in mobility for the region's residents. They also realized that transit has a number of stigmas associated with it that will not be easy to overcome. The biggest drawback to transit for stakeholders is the cost of initiating these systems (connoting Rail Service).

Similar to other regions, stakeholders felt that the public's view of transit was that it was still more of a public service rather than a commute option, which was corroborated by the public opinion poll. However, traffic congestion in the region and other factors have the public looking for alternatives to sitting in traffic.

The most common theme regarding areas in need of service was centered on creating connections between suburban areas to and from Marion County. Service to

and from Greenwood, the airport, Hancock County, Hamilton County, Lawrence and Greenfield were highlighted.

The public opinion poll yielded a number of interesting results for the Central Region (more information about the poll is included in Section 2 and Appendix J). There was also a survey conducted by the Indianapolis Chamber of Commerce in 2008.

- Central Indiana has the highest incidence of daily riders (4.3%) as well as the percentage of regular riders (riding at least weekly – Statewide Avg. 5%). The Central region also had the second lowest percentage of respondents who have never tried transit (80.7%).

Percentage of Regular Transit Users (By Region)

NW	NE	WC	SE	SW	C
2.8%	3.2%	5.2%	5.7%	6.1%	6.9%

- All regions of the State felt that the number one benefit of transit is the transportation cost savings to the user followed by environmental benefits. Central Indiana had the highest percentage of individuals who cited the reduction of traffic congestion as a perceived benefit suggesting that delays on the highways are getting to a point where alternatives are desired.
- In terms of the drawbacks of transit, Central Indiana also agreed with the rest of the State, citing issue with convenience and service coverage.
- In terms of funding, two-thirds of those responding statewide felt a need to generate more funds for transit and most consider a mix of funding methods is the best approach. About 37% of Hoosiers support the idea of generating additional funds by raising at least one type of tax (Sales tax was the most common at 15.3%). The responses in Central Indiana were almost identical to the overall State; however, it had the second lowest percentage of individuals who were against the increase of some form of funding to support transit (behind Northwest Indiana). Sales and income tax were the most popular types of tax identified as potential funding sources.
- In terms of transportation priorities, most of the State felt that the maintenance of existing roads and highways should be the top priority. Across the board the regions all had improved service for transportation disadvantaged populations, improving bus and then improving rail transportation as the second, third and fourth priorities, respectively. Toward that end, Central Indiana had a wider gap between the top four priorities over the expansion of roads. Central Indiana also placed a higher emphasis on improving rail transportation than any other region.

Comparison with Recent Survey in Central Indiana

A 2008 public opinion survey sponsored by the Greater Indianapolis Chamber of Commerce (GICC) and the Metropolitan Indianapolis Board of Realtors (MIBOR) provides insight about opinions on transit within the central Indiana counties of

Boone, Hamilton, Madison, Hendricks, Marion, Hancock, Morgan, Johnson and Shelby.

The overall results of the GICC/MIBOR survey show widespread support for expanding options transit in the Indianapolis region. Specifically, creating "an improved bus system" and "some type of train system" are the most important transit options according to those surveyed, which matches the higher priority placed on bus service from the survey completed for this study.

The GICC/MIBOR survey also asked respondents to compare the importance of transit to other types of government investment options. Mass transportation was listed as being of less importance than public safety/law enforcement; education; job creation/economic development; water and sewer issues; child welfare services; and roads and highways.

On financing, 62.1% of the GICC/MIBOR respondents claimed that there is "too little" public funding for mass transit, which was the highest such proportion among the government investment options (same as listed in the previous paragraph). More than 70% supported a dedicated public fund for mass transit investments, very similar to the 2/3 of the public from this study.

The perceived need for transit in the GICC/MIBOR survey is driven by the high transportation costs and congestion concerns along key highway corridors. The GICC/MIBOR survey asked central Indiana residents about key access, environmental, and economic benefits they associate with transit. The major benefits found by the study corroborate the perceived benefits of this study, including:

- Mass transit would provide a good way for citizens to save money on gasoline and transportation costs (65% strongly agreed).
- Mass transit would give people more (travel) choices (54%).
- Mass transit would provide more mobility options for the disabled and elderly (54%).
- Mass transit would help employers have access to additional employees and employees have access to jobs (49%).
- Mass transit would reduce traffic problems in Central Indiana (48%).
- Mass transit would provide a less stressful way to get to work (40%).
- Mass transit is an important element of economic development in the area (43%).
- Having mass transportation would make the Central Indiana area a more attractive place to live (42%).

C.6 Summary

Indianapolis is at the decision point regarding whether the investment of fixed guideway transit will play a role in the transportation network. Stakeholders in the region are excited about the potential benefits of transit in terms of the economic development, environmental impacts and improvement in mobility for the region's residents. They also realize that transit has a number of stigmas associated with it

that will not be easy to overcome. The biggest drawback to transit for stakeholders is the cost of initiating these systems (connoting rail service).

A recent survey completed by the Indy Metropolitan Chamber of Commerce indicates that the general public in the region supports the implementation of new transit service, which was corroborated by the poll conducted as part of this study.

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The table below illustrates the increases by type of service. It is assumed that in addition to the NE corridor that one other similar corridor (not defined), two commuter rail line (Muncie/Anderson and Bloomington), Indianapolis downtown transit investment and 100-150% increases in the fixed route systems that service the region. Potential funding sources are summarized in Section 5.

Cost Estimate for Central Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$3.05	$13.8	$8.7	$174.0	422.4
Vanpool	N/A	$1.5	0	0	27.0
Urban Bus	$56.1	$143.9	$59.7	$1,194.0	$3,784.2
Fixed Guideway	0	$27.7	$99.1	$1,982.0	$2,480.6
Total	$59.2	$186.9	$167.5	$3,350.0	$6,714.2

Cost Breakdown

Northwest Indiana	Annual	One Time Expenditures			Annual	Annual	Annual
	Existing O&M	New Rolling Stock	Other Capital Expenditures	Major Investments	Capital Support	Replacement Rolling Stock	Year 30 O&M
Rural Service	$3.1	$15.6	$8.2	-	$1.5	$5.3	$13.8
Urban Bus	$44.0	$137.8	$78.3	-	$20.5	$17.2	$143.9
Vanpool	-	-	-	-	-	-	$1.5
Rail	-	-	-	$1,742.0	$12.0	$3.5	$13.1

Major Investments	NE Corridor/One add'l Corridor	2015/2025	$691M ea.
	Indy Downtown	2015	$100M
	2 Commuter Rail Lines	2105/2025	$130M ea.

Assumptions: Major Investment Costs include fleet and support facilities.
Other Capital includes maintenance and support facilities for expanded fleets.

Capital Support includes maintenance of facilities, rehab vehicles, technology support, etc.
Replacement based on FTA life-cycle standards 25 yrs. for railcar, 12 yrs. for large buses, 7 yrs. for small/med buses, 5 yrs. for vans/smaller vehicles.

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[1] This analysis used an ISTDM highway network dated May 9, 2005, and the ISTDM model script developed for TransCAD 4.8. The model runs were based on the 2000 base year and 2030 Long Range Plan highway networks in the ISTDM. Congestion was defined using the POST_ALT procedure in the ISTDM, identifying all facilities with a Level of Service E or F.

[2] A breakdown of trips by county as provided by multi-county transit providers was estimated based on relative county populations, as this information is not available from the report. The 2006 ridership does not reflect private Section 5310 service providers that do not provide ridership data to the state.

Appendix D
Indiana Mass Transit Studies
PL 203-2007

Indiana Department of Transportation
December 2008

Appendix D
Northwest Indiana

This region incorporates the five Indiana Counties (Lake, Porter, Newton, Jasper and LaPorte) that lie within the Chicago metropolitan region, as well as much of the area along the Michigan border. The distinction of rural and urban counties in the Northwest Indiana region is as follows:

Rural Counties: ***Cass, Fulton, Jasper, Kosciusko, Marshall, Miami, Newton, Pulaski, Starke and Wabash***

Urban Counties: ***Gary/Hammond Metropolitan Area (Lake, LaPorte, and Porter) and South Bend/Elkhart Metropolitan Area (Elkhart and St. Joseph)***

D.1 Economic Trends

Population

The largest city in this region is South Bend, which lies in St. Joseph County along the Michigan border. In fact, each of the major cities listed to the right are located along the northern edge of the region.

Major Cities or Towns (>30,000 pop.)

	2000 pop.	2007 pop.
South Bend	108,227	104,069
Gary	102,481	96,429
Hammond	82,819	77,115
Elkhart	52,595	52,647
Mishawaka	46,986	49,439
Portage	33,592	36,505
Merrillville	30,553	32,147
Goshen	29,899	31,893
Michigan City	32,872	31,851
East Chicago	32,328	30,151

This is the second most populous region in the State of Indiana, although growth has not kept pace with overall State population trends and is actually projected to decline between now and 2010. Many of the largest, oldest cities in the area (South Bend, Gary, Hammond) are declining in population, even as portions of Lake County near Chicago and the cities of Elkhart and Mishawaka feature some of the fastest growing cities in the State.

Northwest Indiana Population Changes, 1990 - 2010

	Regional Population	% of State	State Population
1990	1,425,438	25.7%	5,544,156
2000	1,523,793	25.1%	6,081,939
2007 (estimate)	1,561,981	24.6%	6,345,289
2010 (projection)	1,550,141	24.2%	6,417,198
% change (1990 - 2000)	6.9%	n/a	9.7%
% change (2000 - 2010)	1.7%	n/a	5.5%

Income & Employment

Labor Force Data, 2006

Resident Labor Force	770,837
Unemployment Rate	5.2%
Per Capita Personal Income	$31,543
10-year adjusted change	12.3%

The Northwest Indiana region features a large labor pool, many of which commute across the State line into Illinois and Chicago (over 50,000 from the Indiana portion of the Chicago region alone in the year 2000). Employment within the northern third of the State (also including the Northeast region) is heavily concentrated in the manufacturing sector. Over a quarter of the covered employment in the region falls under this category. Job growth has continued at a low rate. Figure 2 shows the general location of major employment areas in the region, based on the year 2000 employment data available in the Indiana Statewide Travel Demand Model (ISTDM).

Total Employment

		% of Region
Total Covered Employment - BLS (2006)	670,175	
Manufacturing	168,368	*25.1%*
Professional/Technical Services	16,429	*2.5%*
10-Year % Change	2.5%	

Land Use & Development

Residential Density & Development

Land Area (sq mi)	6,691
Population Density (2007)	233
Residential Building Permits (2007)	6,030
Residential Building Permits (2006)	6,935

This region is the second most densely populated in the State, particularly in the northernmost counties along borders with Illinois and Michigan. Agricultural land is a small part of the overall region compared to

the remainder of the State. Figure 1 shows housing unit densities across the Northwest Indiana region.

Sub-Regional Trends

- A moderate increase in jobs is forecasted for 2008 in both the Gary-Hammond and South Bend-Elkhart areas. (Indiana Business Review, Outlook 2008)
- Northwest Indiana is expected to continue to be a slow growth area in the coming years overall, driven by population growth in Newton and Jasper Counties, employment growth in Porter County, and losses in each for Lake County.

D.2 Transit Needs Assessment

Two approaches were used to assess transit demand in the Northwest Indiana Region. The first approach was to identify areas in the region where scheduled, fixed-route transit service is likely to be supported by local conditions, such as population and employment density and roadway congestion. This approach helps to identify areas where land use patterns could support higher investment in mass transit infrastructure in order to supplement roadway capacity and provide realistic transportation alternatives for travelers that have a choice of mode. The second approach was to develop quantitative estimates of potential transit ridership for all counties in the region based on theoretical estimates of unmet demand. This second approach will support the establishment of mass transit service and investment goals for the region. A detailed description of the methods used to assess regional transit demand is provided in Appendix B.

Figure 3 shows congested highway corridors in the Northwest Indiana region. Existing congestion is primarily concentrated in Lake County and South Bend, with pockets of congestion in Porter and Elkhart counties. By 2030, areas of congestion are expected to expand to additional roadways within these same areas.

Figure 4 displays projected trip patterns within the Northwest Indiana region for the year 2030. The table below shows major trip flows between counties in the region for all modes of transportation.

2030 Projected Inter-county Trips in Northwest Indiana

Counties	Daily Person-trips between Counties (2030 Projection)
Lake & Porter	194,000
Elkhart & St. Joseph	122,000
Cook (Illinois) & Lake	87,000
Berrien (Michigan) & St. Joseph	55,000
Elkhart & Kosciusko	53,000
LaPorte & Porter	47,000
Marshall & St. Joseph	34,000
Elkhart & LaGrange	31,000
LaPorte & St. Joseph	30,000

Figure 1 – Residential Density in NW Indiana

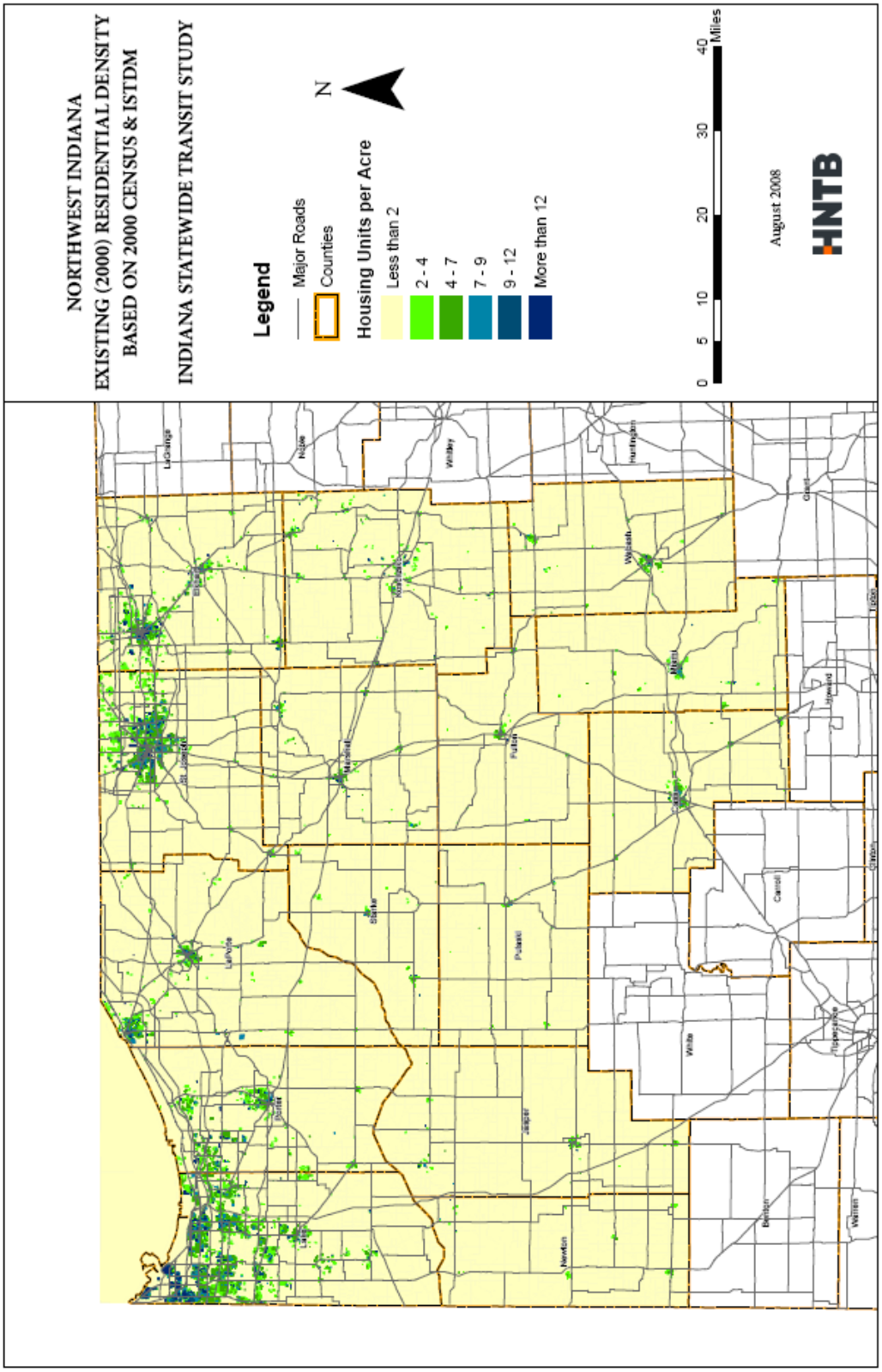


Figure 2 – Employment Centers in NW Indiana

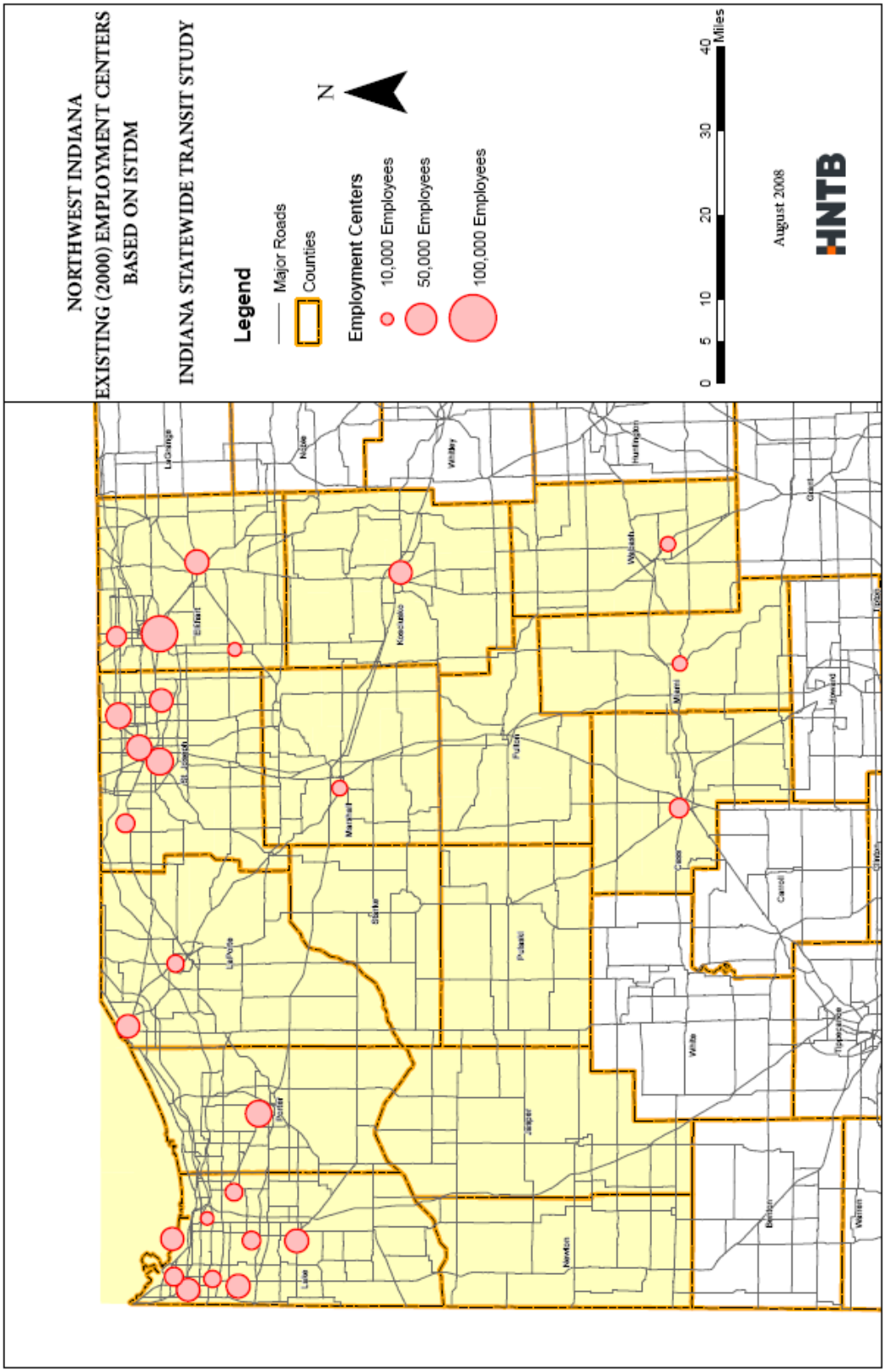


Figure 3 – Congested Corridors in NW Indiana[1]

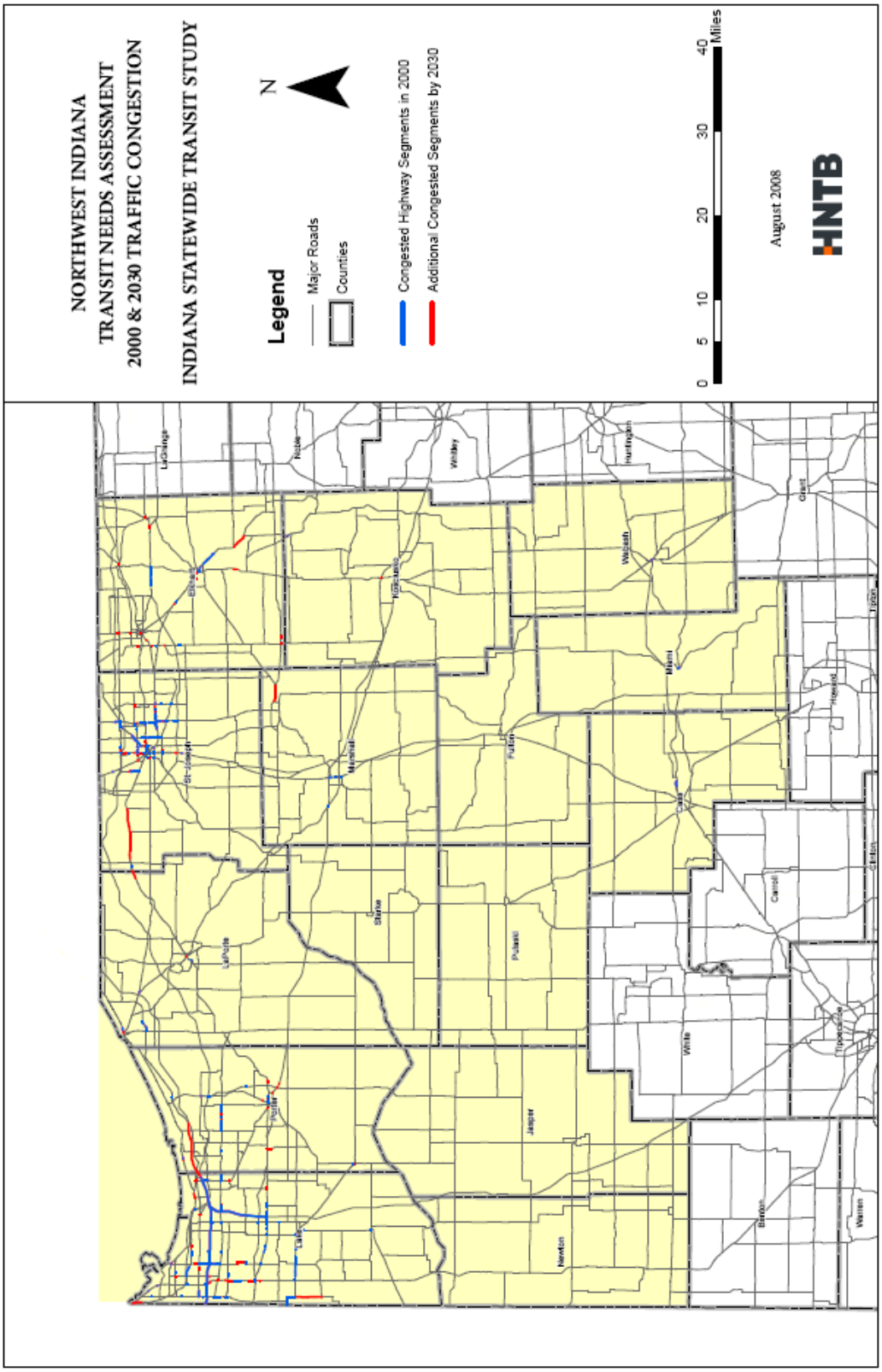
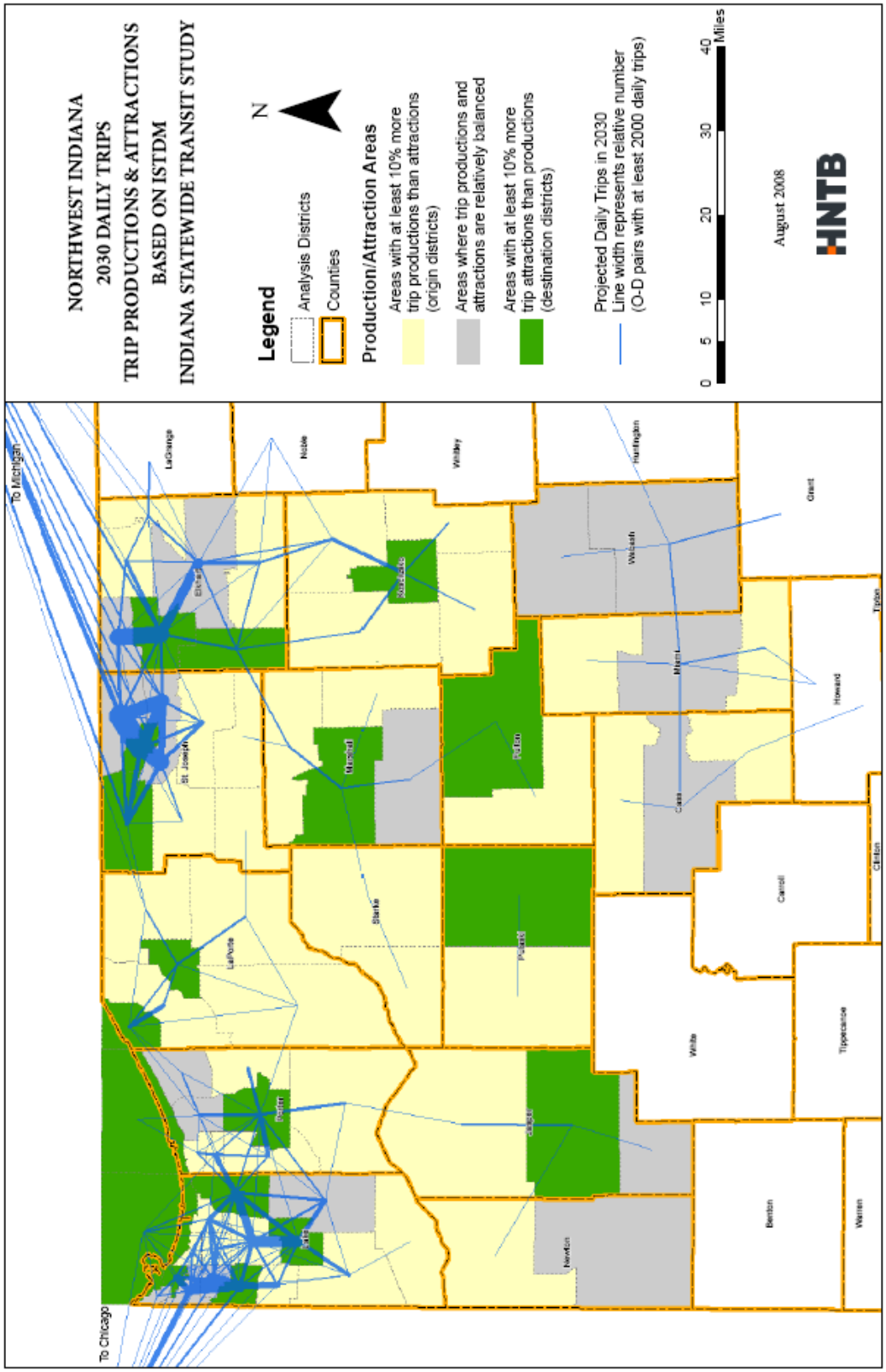


Figure 4 – Travel Patterns in NW Indiana



Quantitative Demand Estimates

Several methods were used to develop quantitative estimates of transit demand in the Northeast Indiana Region. The Mobility Gap method, the Arkansas Public Transportation Needs Assessment (APTNA) method and the Washington State Department of Transportation (WSDOT) method were used to assess demand for rural areas. The Mobility Gap method estimates the transit trips that would result if all zero-auto households in the region were to take as many trips as two-auto households. The APTNA and WSDOT methods estimated demand for rural transit services based on formulas derived in studies of service in Arkansas and Washington. The Mobility Gap method was also used to estimate transit demand in urbanized areas, as was the Mode Split method. The Mode Split method estimates the number of transit trips that would be taken if transit were to serve 1%, 2% or 3% of the total trips in the region. All of these methods are described in Appendix B.

Recognizing the theoretical nature of area-wide transit demand estimates and the influence of specific local conditions on demand, these methods were used to identify a potential range of transit need. The result is a range of demand estimates from low-end estimates of demand for basic service to high-end estimates of demand for high-quality service. This range is best interpreted as an "order of magnitude" demand estimate for transit service in the region. Ultimately, more definitive transit demand estimates must reflect local conditions.

The table below summarizes the results of the demand estimation for rural and urban counties in the Northeast Indiana region in 2007. The number of transit trips provided in the region in 2006, as obtained from the 2006 Indiana Public Transit Annual Report, is also shown for reference[2]. Depending on the method used, demand for transit service in the Northeast Indiana Region was estimated to be between 6,177,000 and 25,439,000 annual one-way trips in 2007. Transit providers in the region collectively served approximately 2,200,000 one-way trips in 2006, which met between 9% and 36% of the estimated regional demand.

Based on the information in Figures 1 through 4, it is possible to identify areas with characteristics that generally support fixed-route transit service. In the Northwest Indiana region, the areas most likely to sustain this type of service are:

- Northern Lake and Porter counties, including Valparaiso;
- The Michigan City and LaPorte areas in LaPorte County;
- Northern St. Joseph County; and
- Northwestern and central Elkhart County.

Estimated Transit Demand for Northwest Indiana Region

Area	Estimated 2007 Population	2006 Annual Transit Trips	2007 Transit Demand (Annual Trips)			
			Mobility Gap Method	APTNA Method	WSDOT Method	
Rural Counties	335,500	438,000	7,782,000	1,075,000	3,923,000	--
			Mobility Gap Method	For 1% Mode Share	For 2% Mode Share	For 3% Mode Share
Gary/Hammond Metro	762,500	1,962,000	23,538,000	8,860,000	17,719,000	26,579,000
South Bend/ Elkhart Metro	464,000	3,724,000	12,692,000	5,838,000	11,676,000	17,513,000
Urban Total	1,226,500	5,686,000	36,230,000	14,698,000	29,395,000	44,092,000
Regional Total	**1,562,000**	**6,124,000**	**Lowest estimate: 15,773,000 (39% of need is met)** **Highest estimate: 51,874,000 (12% of need is met)**			

D.3 Regional Transit Plans & Programs

The Northern Indiana Commuter Transportation District (NICTD) operates the South Shore commuter rail line across the northern edge of the region, from South Bend to Chicago. This service provides a regional transit spine that connects to local transit services provided in cities and towns along its path. The bus systems in Hammond, East Chicago, Gary, Valparaiso, Michigan City, and South Bend/Mishawaka connect with South Shore stations.

NICTD has proposed the development of two additional lines to provide commuter rail service from Chicago to additional communities in Lake and Porter counties. One line would extend south from Hammond to Munster, Dyer, St. John, Cedar Lake and Lowell. This line would roughly follow the US 41 highway corridor. The other line would extend south from Hammond to Munster and then east, providing service to Highland, Griffith, Merrillville, Hobart and Valparaiso. This route would provide travel alternatives for drivers that use the US 30 corridor.

In Lake County, the cities of Gary, Hammond, and East Chicago operate fixed route bus services. GPTC has twelve routes that serve the City of Gary and parts of the cities of Merrillville, Crown Point, Hobart, East Chicago, and Hammond. HTS operates five weekday/Saturday route and one Saturday-only route within the City of Hammond and parts of the cities of Highland, Munster, and East Chicago. ECT operates four fare-free routes within the City of East Chicago and parts of the cities of Hammond, Highland, and Griffith. These three systems are connected by the GPTC Tri-city Route. At the December 9th Northwest Indiana Regional Plan Commission Meeting (Northwest Indiana MPO) the Hammond Transit System stated that as a result of the property tax impacts of HEA 1001 they would be significantly reducing service in 2009 with the possible termination of transit service mid-2009.

In Porter County, the City of Valparaiso operates the V-Line bus service, with three routes that circulate around the city and one route connecting Valparaiso to the Dune Park South Shore rail station in Chesterton. Additionally, the ChicaGo Dash provides express bus service between Valparaiso and the City of Chicago.

Lake and Porter counties have established a Regional Bus Authority (RBA), which has developed a strategic plan for improvements to bus service in the region. The RBA plan calls for the expansion of local bus service to areas south of I-80/94 in Lake County and parts of Porter County. This includes the cities of Munster, Highland, Griffith, Dyer, Schererville, Merrillville, Hobart, Crown Point, Portage, Chesterton, and Valparaiso. Additionally, the RBA plan recommends the development of nine regional bus routes to connect cities and local transit services across Lake and Porter counties and into Illinois. The RBA plan also calls for the expansion of demand-response service in suburban and rural areas of Porter and southern Lake Counties, and increased coordination between existing demand-response service providers in northern Lake County.

In LaPorte County, Michigan City Transit provides four bus routes that circulate through Michigan City, as well as a demand-response service for parts of the city not served by fixed routes. The City of LaPorte also provides demand-response service within its city limits. A service called Prairie Schooner has been proposed, which would combine the demand-response services in these two cities with countywide demand-response service and create a new fixed route connecting Michigan City, LaPorte, and the Purdue North Central campus.

In the South Bend/Elkhart area, there are two fixed-route bus systems. TRANSPO provides bus service along 17 routes throughout South Bend and Mishawaka, with service on weekdays and Saturdays. The Interurban Trolley provides service along three routes in Elkhart and Goshen. Elkhart and Goshen are also served by demand-response services in areas where the buses do not travel. MPO plans in this area call for the development of new routes in Elkhart and Goshen, enhancement of existing services, development of a new maintenance/operations facility in South Bend, and connecting service between the two fixed-route systems.

Existing transit service plus planned improvements in the Northwest Indiana region generally provide good geographic coverage of the transit-supportive areas identified in this study. The region has the second-highest potential transit demand in the state, behind Central Indiana, but currently provides service that only meets 12% to 39% of the theoretical demand level computed here. Northwest Indiana contains some of the most densely-developed areas in the state, and has a high level of roadway congestion. Efforts to expand and coordinate service in this region, as well as provide more regional connecting service, should help reduce the gap between the service provided and the level of potential demand.

Outside the urban areas, rural demand-response service is currently available in Kosciusko, Fulton, Wabash, Miami, Cass, Pulaski, Starke, Jasper, and Newton counties and the City of Plymouth.

D.4 Potential Transit Implementation

The focus of transit in NW Indiana has for a number of reasons been focused on commuter travel to and from Chicago. The Long Range Transportation Plan maps out a strategy for supporting the pattern of commuting by recommending two new commuter rail lines that will increase access for the southern portions of each county. The emphasis on commuter rail is justified and a key strategy for the region, however, it will be important to improve local and regional bus services as laid out in the RBA's strategy, especially if the region is going to move toward accommodating a higher percentage of the unmet needs. The introduction of express bus (regional service), increased frequency and service area of the local systems and improved feeder service to the commuter rail will be critical to the attraction of a larger percentage of the travel market.

The South Bend/Elkhart metropolitan area can also benefit from a similar strategy by focusing increasing the convenience of its system through better frequency of service and expanded routing.

Based on operating cost and the size of their fleets, the rural areas of the region need to improve their utilization and expand their services to meet unmet demand. The operating cost per vehicle of $33,000/year is among the lowest in the State and suggests that the vehicles are not in operation for significant portion of a given day. [3] The limiting factor for these systems is clearly funding.

The following section outlines some of the specific transit investments prescribed for the region and their associated benefits based on the experience in the peer systems.

Increased NICTD commuter rail service throughout Lake and Porter Counties

Description of Potential Service: The existing South Shore line has long connected the communities of Hammond, Gary, Michigan City and South Bend to Chicago. Additional commuter rail service has been planned which would serve the growing areas south of the I-80/94 corridor in Lake and Porter Counties. The two lines are 26 and 18 miles in length, will cost approximately $1 billion to construct and will require about $14 million per year to operate (Based on information obtained from the regional plans and estimated fleet sizes.)

Parallels from Peer Systems:

The Lake and Porter County portions of Indiana are a part of the Chicago metropolitan region. The experience from other portions of the Chicago region, the New Jersey portion of the Philadelphia region, and the Illinois portion of the St. Louis region can be used to draw some parallels for the types of impacts possible from the expansion of commuter rail.

- Social/Demographic: The Illinois portion of the St. Louis metropolitan area generally has lower accessibility by auto to the jobs in the region, particularly during peak periods when traffic congestion means that most of the regional job

base is not within a 45-minute drive. The MetroLink rail service has improved travel times to jobs in St. Louis, and has been well utilized by low-income households in particular.

- Economic Growth: Employment growth in Northwest Indiana has lagged behind the broader Chicago region, while the transit-served portions of New Jersey in the Philadelphia region and Illinois in the St. Louis region have seen a higher rate of employment growth than the remainder of their respective regions.
- Congestion Mitigation: Traffic congestion in the St. Louis region is most severe where commuters encounter a river crossing, making Illinois residents particularly susceptible to traffic delays. While there are no data on the reduced number of vehicles reflected in the ridership numbers, the MetroLink line has provided a new travel option for those commuting across the State line.
- Land Use & Development: A 1998 study of 98 CTA and Metra station areas confirmed the positive impact of public transportation on property values. Although other influences like neighborhood desirability factor into the overall value, the positive effect of transit proximity was on display across all neighborhood types. While residential properties within 300 feet of a rail line may experience some negative noise impacts which offset property value increases, the general rule applies that there is a decline in value as one moves away from the station. Study results show a range of percentage premium from more than 25% within 500 feet of a station to less than 5% for properties more than 4,000 feet away.
- Land Use & Development: Transit is a key element of a number of development-oriented efforts on the New Jersey portion of the Philadelphia metropolitan area:
    - Burlington is along the River Line (NJ Transit) has been designated a "transit village" by the State, and the City continues to plan for development around transit. The City has already seen numerous commercial and multi-family residential redevelopment projects. In addition to a number of completed projects, as of 2007 there were more than 180 units being added transit-adjacent townhome developments.
    - The City of Camden is planning for growth along its waterfront to capitalize on the presence of the NJ Transit River Line. Cooper's Crossing is a mixed-use town center located on 70 acres near the Cooper Street/Rutgers station. The $200 million plans include 1,500 housing units, 500,000 sq ft of office space, and 150,000 sq ft of retail, dining and entertainment uses.
    - In Cherry Hill the former Garden State Park racetrack is being redeveloped into a $500 million, 222-acre mixed use town center with 1,600 new residential units, a 1 million sq ft corporate office center, and a 750,000 sq ft retail center.

Impacts from NICTD Extension(s):

- Social/Demographic: The extension of commuter rail to new portions of Northwest Indiana will improve the accessibility for low-income populations to

regional employment centers located in Illinois, and in particular downtown Chicago.

- Economic Growth: The commuter rail service will provide new economic growth opportunities for Northwest Indiana cities currently lacking transit service. The remainder of the Chicago region has experienced higher rates of economic and employment growth, and improved transit connections to the remainder of the metropolitan region can help better capture the economic growth in the region.
- Environmental Quality: The Chicago region is currently a non-attainment area, and the commuter rail service will reduce emissions. Commuter rail in particular reduces the vehicle miles travelled (VMT) in a corridor and region.
- Land Use & Development: The extension of commuter rail will create prospects for transit-oriented development and redevelopment at up to 12 new station areas in the State.

Expanded bus routes and service for central Lake and Porter Counties

Description of Potential Service: The Regional Bus Authority has developed plans to expand local bus service to areas south of I-80/94 in Lake and Porter Counties. This area includes the towns of Schererville, Merrillville, Crown Point, Hobart and Valparaiso, which make up some of the fastest-growing communities in the State. There is also a demonstrated need for additional frequency and coverage for transit service in existing areas, as well as better coordination between the three bus agencies in Hammond, Gary and East Chicago.

Parallels from Peer Systems:

- Social/Demographic: Expanded local bus service will improve links between fast-growing areas of the Northwest Indiana region and the often job-poor districts in East Chicago, Gary, and Hammond. Local bus service provides broad coverage and point-to-point service that is well utilized by seniors and other households unable to drive.
- Environmental Quality & Congestion Mitigation: Increased frequency and broader service hours for buses in other cities has led to more "choice" riders using the system, which is the key to reducing the rate of increase of VMT in a region.

Impacts from expanded bus service in Lake and Porter Counties

- Social/Demographic: Higher-frequency bus routes will provide the high proportions of seniors and sensitive populations in northern Lake and Porter Counties with expanded opportunities for work, shopping and recreational trips.
- Environmental Quality: Use of the bus system by more "choice" riders will help reduce air pollutant emissions in the region.

Expanded bus routes and service in South Bend and Elkhart

Description of Potential Service: Existing bus service in the South Bend/Elkhart area is provided by two separate transit agencies, and there are plans to enhance the level of service within these systems as well as the connections between these two fixed-route systems.

Parallels from Peer Systems:

Peer systems analyzed for the South Bend/Elkhart area include the Quad Cities (Ill./Iowa), Albuquerque, Charleston (S.C.), and Little Rock (Ark.).

- Social/Demographic: The Quad Cities region tracks "areas of concern" for use in its transit planning analysis. These areas are determined by a combination of households with no vehicle, median household income, and high populations in the labor force. These are considered areas which would benefit most from transit service, and which need to be linked to existing job concentrations in the region.
- Social/Demographic: A profile of the passengers on Little Rock's CATA system shows that 80% use transit because they cannot drive, and that relatively the same proportion comes from households with one or fewer cars. In addition, 56% earn less than $20,000 per year, even though 60% are employed full time. The population utilizing local bus service in these cities is likely to be largely dependent on those services for basic needs.
- Land Use & Development: While transit has had low impacts on the existing development trends, geographical constraints have focused residential and employment development over the years making Charleston relatively dense compared to its peers.

Impacts from expanded bus service in South Bend/Elkhart

- Social/Demographic: Expanded service will provide seniors and sensitive populations with work, shopping and recreational trips.
- Environmental Quality: Use of the bus system by more "choice" riders will help reduce air pollutant emissions in the region.
- Land Use & Development: Expanded local bus service will reinforce the value of more densely developed areas in South Bend and Elkhart, a region which has sustained relatively stable growth.

Fixed bus route connecting Michigan City and LaPorte

Description of Potential Service: Fixed-route service in this portion of the region is limited to four buses providing circulation in Michigan City. Proposed bus service (the Prairie Schooner) would connect Michigan City and LaPorte, as well as with the major public university campus in the area, Purdue North Central. The service would provide a link between LaPorte and the NICTD commuter rail stations to the north and west.

Parallels from Peer Systems:

Peer systems studied for the Michigan City/LaPorte area include Traverse City (MI), Paducah (KY), and Florence (SC).

- Social/Demographic: The Florence area has higher poverty levels than the State of South Carolina as a whole, with levels over 16% in Florence County. Many of these residents live in rural portions of the region. The regional transit agency (PDRTA) has made a deliberate shift away from standard fixed-route services and to more targeted demand-response or other services intended to match workers to jobs. This has resulted in more efficiency and improved ridership.
- Economic Growth: The trolley service in downtown Paducah is specifically designed to connect tourism and entertainment resources in the City, and has been successful in supporting this growing portion of the regional economy. In Traverse City, a review of the economic impacts of tourism estimated that visitors to the area sustained 807 jobs in transit and ground passenger transportation in Grand Traverse County. Tourism is a major source of economic value in Traverse City.

Impacts from expanded bus service in Michigan City and LaPorte

- Social/Demographic: Expanded service will help provide seniors and sensitive populations with work, shopping and recreational trips.
- Economic Growth: Additional bus or bus-trolley service in the area will support tourism growth in lakefront areas of Michigan City.
- Environmental Quality: Use of the bus system by more "choice" riders will help reduce air pollutant emissions in the region.

Increased Demand Response Service throughout the region's rural areas

Description of Potential Service: The needs assessment for the region showed that there is a considerable amount of demand for rural transportation service that is not being met. The introduction of county-wide demand response service into LaPorte, St. Joseph, Marshall and Elkhart County above and beyond what the human service agencies are providing, as well as expanded service in the other counties will be instrumental in moving toward meeting demand.

All of the counties in Indiana have some form of agency-sponsored transportation, whether it is for the elderly under the Older American Act, Medicaid transportation for low income or any of the other 60-plus federal programs sponsoring transportation. The agencies administering these programs are often restricted to serving only qualifying clients for eligible trip purposes. The issue for many areas, especially those that do not have public systems, is that there are many individuals that either do not qualify for a specific program or in many cases have need to make a trip that is not eligible under the program rules.

Impacts from increased Demand Response service in Northwest Indiana:

Improvement to rural demand response service provides increased mobility and quality of life for transit dependent populations that do not qualify for human service agency sponsored services. Increased transportation for these populations provides the following benefits.

- Increased access to employment for low-income populations which allows less reliance on other government programs. The Virginia Transit Association finds that provide access for one disabled individual to employment saves $7,000 per individual per year in in-home services.
- More consistent access to medical coverage which improves overall health for the individual, but can also save the county (jurisdiction) money due to reduced emergency rooms visits, usage of emergency services and need for in-home or other specialized medical services sponsored by the county. The Virginia Transit Association finds that providing transportation to elderly individuals helps reduce the reliance of other publicly sponsored services.

Cost of In-Home Services to Elderly (Virginia Transit Association)

Service	Average costs annually	Cost per recipient
Home meals	$3.4 million	$385 per recipient
Home health services	$8.6 million	$959 per recipient
Adult day care	$1.3 million	$3,634 per recipient
Personal care	$74.3 million	$7,434 per recipient
Nursing facility care	$393.3 million	$14,241 per recipient

D.5 Stakeholder/Poll Regional Summary

Northwest Indiana holds the distinction of having the only fixed guideway transit services in Indiana. As a result, transit in Northwest Indiana has a slightly different set of issues with regard to service needs, design and funding. Analyzing transit issues within the region was more difficult because there were also distinct differences among the Gary/Hammond portion of the region, South Bend/Elkhart (further removed from Chicago) and the rural areas to the South. Stakeholder interviews and the public opinion poll were critical to the process of understanding the unique issues facing the region related to transit.

For Northwest Indiana stakeholders, the primary issue that faces public transportation is the lack of funding. The region has a number of mechanisms in place to generate funding but economic struggles (especially in northern Lake and Porter Counties) have made it difficult to sustain existing services and implement new service. Both NICTD and the RBA have aggressive plans to accommodate transit needs through the expansion of the commuter rail system and increased regional and local bus service, but have not yet been able to increase local funding to support these plans.

The results of the public poll similarly found that residents felt the need for more support from the State to meet their funding needs. A potential explanation is that the frustration associated with raising money locally may contribute to the opinion that the State is lacking in support.

Most of the stakeholders interviewed cited the southern portions of the region as the areas with the most need for new service. These areas include a connection to Lowell and Valparaiso into Chicago and increased rural services. There is also interest in improving service between communities (Michigan City-LaPorte-Westville) within the region, which differs from the southern Indiana regions which felt a need for more inter-regional service.

The public opinion poll yielded a number of interesting results for the Northwest Indiana region (more information about the poll is included in Section 2 and Appendix J).

- Northwest Indiana had the highest percentage of individuals who have tried transit (22.8%), which is higher than the State average of 16.5%. There was also a significantly higher incidence of those using transit "less than once a month" indicating the occasional travel potentially to Chicago for reasons other than commuting to work.
- Northwest Indiana had the second lowest incidence of daily riders (2%), less than half that of Central Indiana (4.3%). The difference is even greater for regular riders (riding at least weekly – Statewide Avg. 5%).

Percentage of Regular Transit Users (By Region)

NW	NE	WC	SE	SW	C
2.8%	3.2%	5.2%	5.7%	6.1%	6.9%

- All regions of the State felt that the number one benefit of transit is the transportation cost savings to the user followed by environmental benefits. Northwest Indiana had these benefits in the same order, however, there was a much more even split between them indicating that this region places more emphasis on the environmental benefits.
- In terms of the drawbacks of transit, Northwest Indiana also agreed with the rest of the State citing issue with convenience and service coverage. However, a third drawback of overcrowding on the vehicles had a much higher response in Northwest than the other regions.
- Statewide there was almost an even split among respondents placing the responsibility on either local (42.3%) or the state (39.2%) levels of government. The Northwest and the Southeast regions were the only regions to favor state responsibility.
- In terms of funding, two-thirds of the statewide respondents felt a need to generate more funds for transit, and most consider a mix of funding methods is the best approach. About 37% of Hoosiers support the idea of generating additional funds by raising at least one type of tax (sales tax was the most common at 15.3%). Northwest Indiana had very similar responses to the overall

State. Most respondents suggested that other funding mechanisms be implemented. The survey allowed for an open-ended response which very diverse, but using lottery proceeds was a common response among the open-ended answers.

- Raising fares was also a very common response for generating new funding. Northwest Indiana placed a slightly higher emphasis on fares than did the other regions (NW-41.7%, Statewide - 39%).

D.6 Summary

Transit issues in Northwest Indiana are unique in that they face "Chicago-sized" needs but are drawing their funding from a considerably smaller population base. Taken by itself, the region would have a very high intensity of service when compared to other regions of 1 million to 1.2 million people. Therefore, the primary issue that faces public transportation is the lack of funding and the region as looked to the State for help. The lack of funding and the need for assistance from the State were corroborated by both the stakeholder interviews and the opinion poll conducted as part of the study. The region has a number of mechanisms in place to generate funding but economic struggles (especially in northern Lake and Porter Counties) have made it difficult to sustain existing services and implement new service. Both NICTD and the RBA have aggressive plans to accommodate transit needs through the expansion of the commuter rail system and increased regional and local bus service, but have not yet been able to increase local funding to support these plans.

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The tables below illustrate the cost of the increases by type of service. It is assumed that in addition to the two commuter rail lines currently planned, a bus rapid transit facility (not defined), and 100-150% increases in the fixed route systems and rural transportation programs that service the region. Potential funding sources are summarized in Section 4 of the main report.

Cost Estimate for Northwest Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$3.7	$9.5	$8.2	$164.0	$335.0
Vanpool	n/a	$1.5			$27.0
Urban Bus	$26.8	$68.7	$39.9	$798.0	$2,034.6
Fixed Guideway	$32.7	$62.9	$60.6	$1,818.0	$2,950.2
Total	$63.2	$142.6	$108.7	$2,780.0	$5,346.2

In millions 2008 $ - no escalation.

Cost Breakdown

Northwest Indiana	Annual	One Time Expenditures			Annual	Annual	Annual
	Existing O&M	New Rolling Stock	Other Capital Expenditures	Major Investments	Capital Support	Replacement Rolling Stock	Year 30 O&M
Rural Service	$3.7	$14.8	$ 8.1	-	$2.1	$3.0	$9.5
Urban Bus	$26.8	$72.6	$ 55.0	-	$15.7	$10.0	$68.7
Vanpool	-	-	-	-	-	-	$1.5
Rail	$ 32.7	-	-	$1,800.0	$18.8	$ 7.0	$ 62.9

Major Investments	Planned Commuter Rail Extensions	2015/2025	$1B
	10-Mile BRT Corridor	2025	$800M

Assumptions: Major Investment Costs include fleet and support facilities.
Other Capital includes maintenance and support facilities for expanded fleets.
Capital Support includes maintenance of facilities, rehab vehicles, technology support, etc.
Replacement based on FTA life-cycle standards 25 yrs. for railcar, 12 yrs. for large buses, 7 yrs. for small/med buses, 5 yrs. for vans/smaller vehicles.

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[1] This analysis used an ISTDM highway network dated May 9, 2005, and the ISTDM model script developed for TransCAD 4.8. The model runs were based on the 2000 base year and 2030 Long Range Plan highway networks in the ISTDM. Congestion was defined using the POST_ALT procedure in the ISTDM, identifying all facilities with a Level of Service E or F.

[2] A breakdown of trips by county as provided by multi-county transit providers was estimated based on relative county populations, as this information is not available from the report. The 2006 ridership does not reflect private Section 5310 service providers that do not provide ridership data to the state.

[3] The cost and fleet information was taken from INDOT records. It is possible that these vehicles are also operated using human service transportation funding from other sources and the service statistics are not reported to INDOT. Based on the INDOT statistical information $33,000 in operating cost per vehicle is less than what it would take to pay drivers to operate the vehicle for 12 hours per day which would cost 1.5 FTE at $10/hour plus 35% benefits = $42,000 and does not include fuel, maintenance and insurance.

Appendix E
Indiana Mass Transit Studies
PL 203-2007

Indiana Department of Transportation
December 2008

Appendix E
Northeast Indiana

The distinction of rural and urban counties in the Northeast Indiana Region is as follows:

Rural Counties: ***Adams, Blackford, DeKalb, Huntington, Jay, LaGrange, Noble, Steuben, Wells, and Whitley***
Urban Counties: ***Fort Wayne Metropolitan Area (Allen) and Marion/Gas City Metropolitan Area (Grant)***

E.1 Economic Trends

Population

Fort Wayne is the second largest city in the State, and its metro area contains more than half of the population in the Northeast region. Population in the city itself has been relatively stable since 2000, with a slight decline.

Major Cities or Towns (>30,000 population)

	2000 Pop.	2007 Pop.
Fort Wayne	251,691	251,247
Marion	32,318	30,363

The area as a whole has grown slower than the state, and this is projected to continue into the near future.

Population Changes, 1990 - 2010

	Regional Population	% of State	State Population
1990	660,829	11.9%	5,544,156
2000	725,590	11.9%	6,081,939
2007 (estimate)	744,811	11.7%	6,345,289
2010 (projection)	747,723	11.7%	6,417,198
% change (1990 - 2000)	9.8%	n/a	9.7%
% change (2000 - 2010)	3.1%	n/a	5.5%

Income & employment

The unemployment rate in this region generally tracks higher than State trends due to the heavy reliance on manufacturing employment and the statewide decline in jobs in this sector since 2000. This area has lost 2.2% of its jobs between 1996 and 2006. The adjusted change in per capita income is the lowest of any region in the State at 4.5%, almost half of the next lowest region.

Labor Force Data, 2006

Resident Labor Force	382,338
Unemployment Rate	5.3%
Per Capita Personal Income	$29,666
10-year adjusted change	4.5%

Figure 1 shows the general location of major employment areas in the region, based on the year 2000 employment data available in the ISTDM.

Total Employment

		% of Region
Total Covered Employment - BLS (2006)	340,396	
Manufacturing	87,507	*25.7%*
Professional/Technical Services	7,483	*2.2%*
10-Year % Change	-2.2%	

Land Use & Development

This region is the third most densely populated in the State of Indiana. Residential development slowed during 2007.

Figure 2 shows housing unit densities across the Northeast Indiana Region.

Residential Density & Development

Land Area (sq mi)	4,510
Population Density (2007)	165
Residential Building Permits (2007)	2,127
Residential Building Permits (2006)	2,672

Sub-Regional Trends

- The Fort Wayne area has been perhaps the hardest hit metro region in the State for job losses in the manufacturing sector. Between 2001 and 2007, the Fort Wayne metro area lost nearly 11,000 manufacturing jobs and had among the slowest GDP growth in the nation (U.S. BEA). Nevertheless, like much of the state the area has experienced four consecutive years of slight, but positive job growth.

Figure 1 – Residential Density in NE Indiana

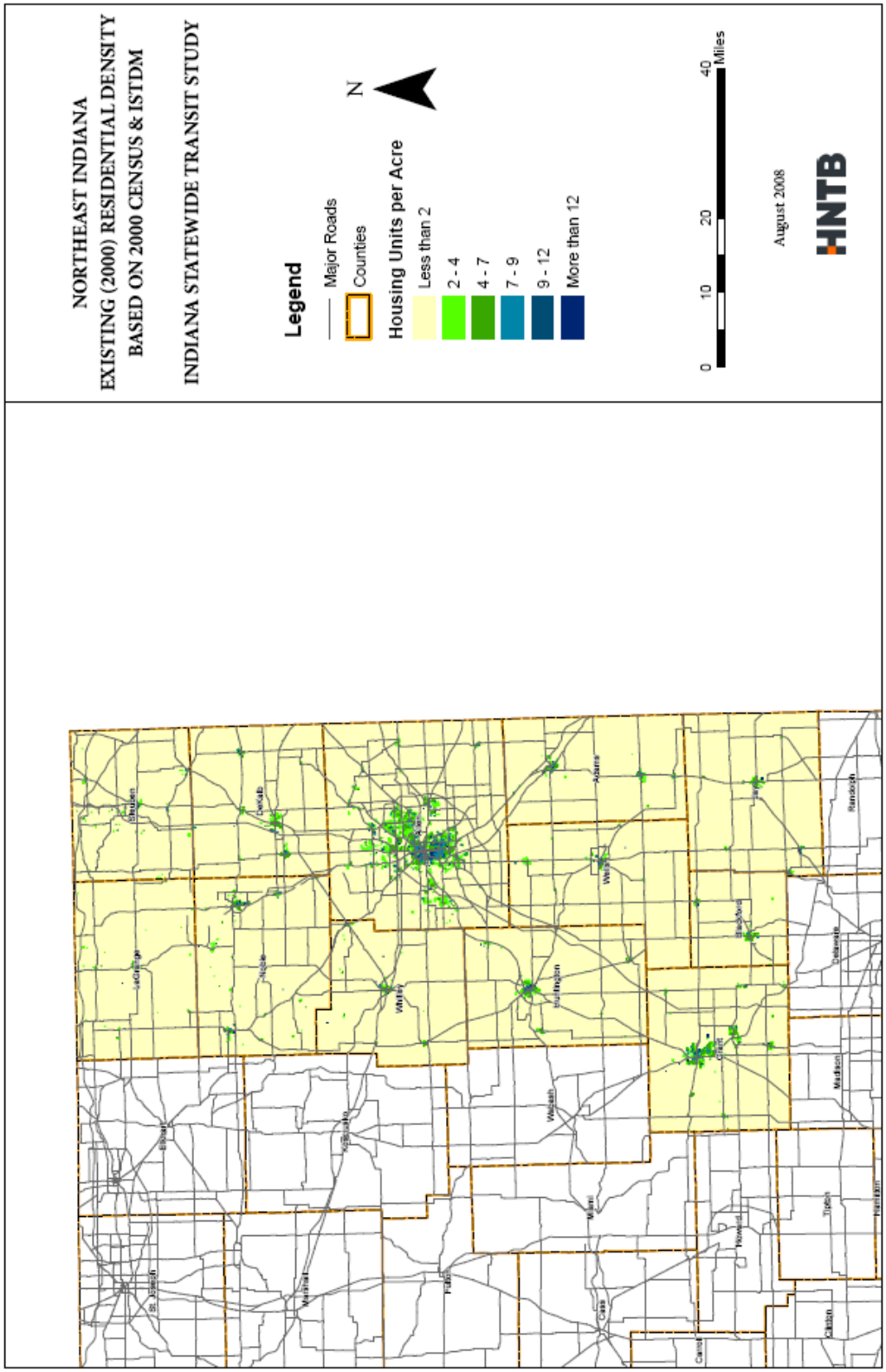
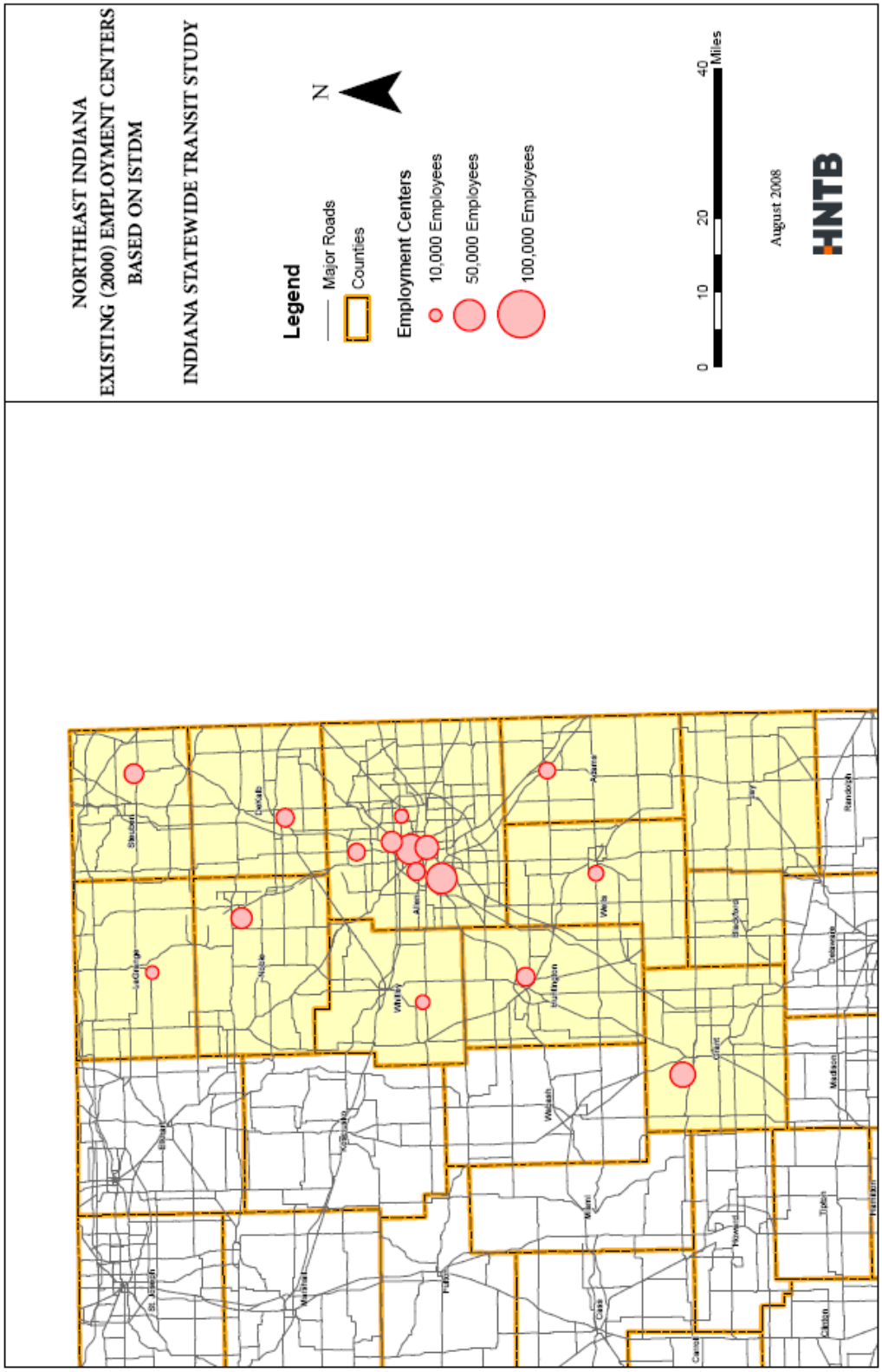


Figure 2 – Employment Centers in NE Indiana



E.2 Transit Needs Assessment

Two approaches were used to assess transit demand in the Northeast Indiana Region. The first approach was to identify areas in the region where scheduled, fixed-route transit service is likely to be supported by local conditions, such as population and employment density and roadway congestion. This approach helps to identify areas where land use patterns could support higher investment in mass transit infrastructure in order to supplement roadway capacity and provide realistic transportation alternatives for travelers that have a choice of mode. The second approach was to develop quantitative estimates of potential transit ridership for all counties in the region based on theoretical estimates of unmet demand. This second approach will support the establishment of mass transit service and investment goals for the region. A detailed description of the methods used to assess regional transit demand is provided in Appendix B.

In addition to land use information, regional travel demand and traffic congestion information were used to help identify transit-supportive areas. This information was obtained from the Indiana Statewide Travel Demand Model maintained by INDOT.

Figure 3, shows congested highway corridors in the Northeast Indiana region. Existing congestion is primarily concentrated in Allen County, with pockets of congestion in Grant County. By 2030, the number of congested roadways in Allen County is projected to increase, and pockets of congestion are projected in Noble and DeKalb counties.

Figure 4 displays projected trip patterns within the Northeast Indiana region for the year 2030. Table 1 shows projected major trip flows between counties in the region for all modes of transportation in 2030.

2030 Projected Inter-county Trips in Northeast Indiana

Counties	Daily Person-trips between Counties (2030 Projection)
Allen & DeKalb	45,000
Allen & Whitley	42,000
Elkhart & LaGrange	31,000
Allen & Huntington	28,000
Allen & Wells	26,000

Figure 3 – Congested Corridors in NE Indiana[1]

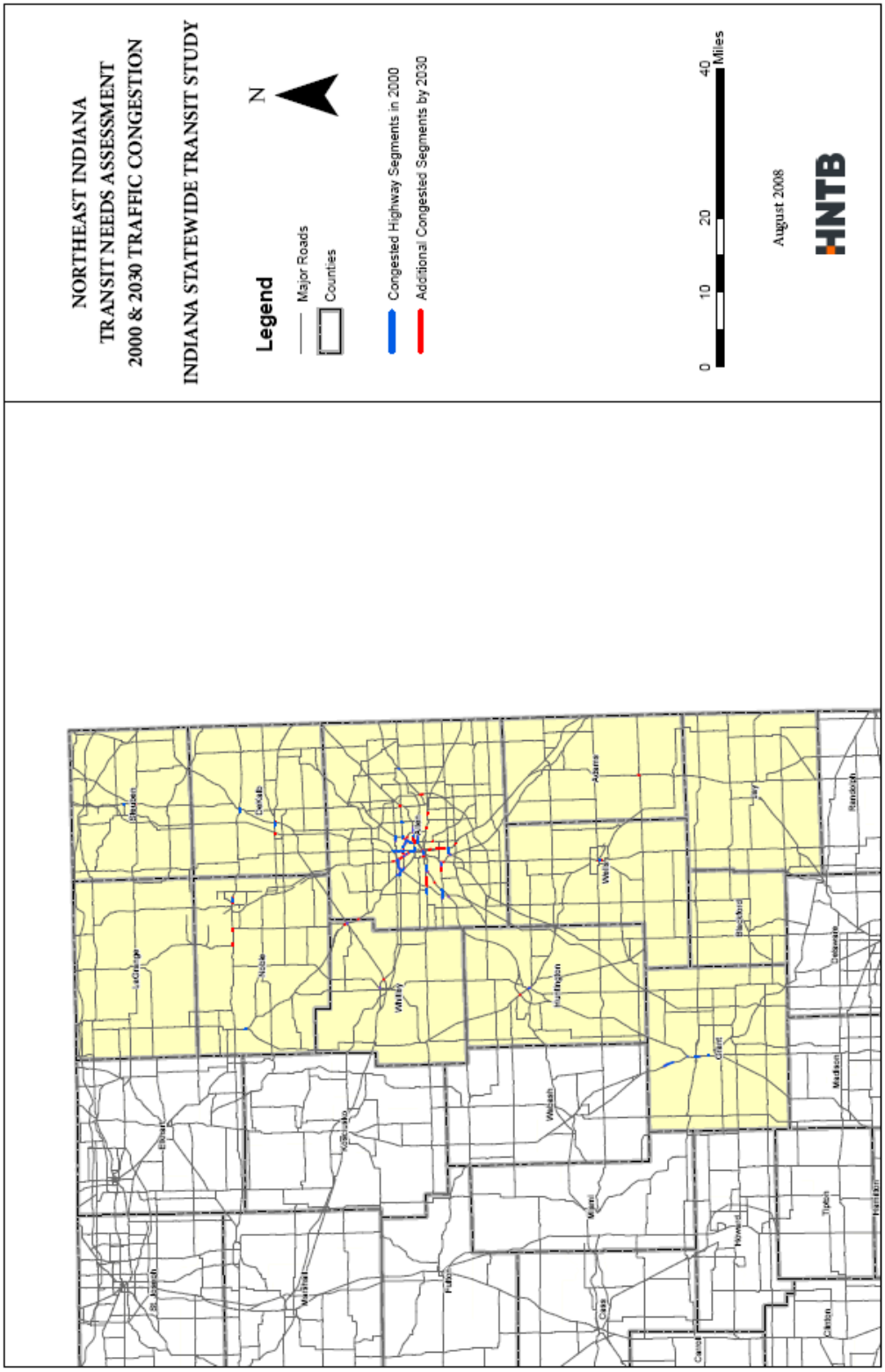
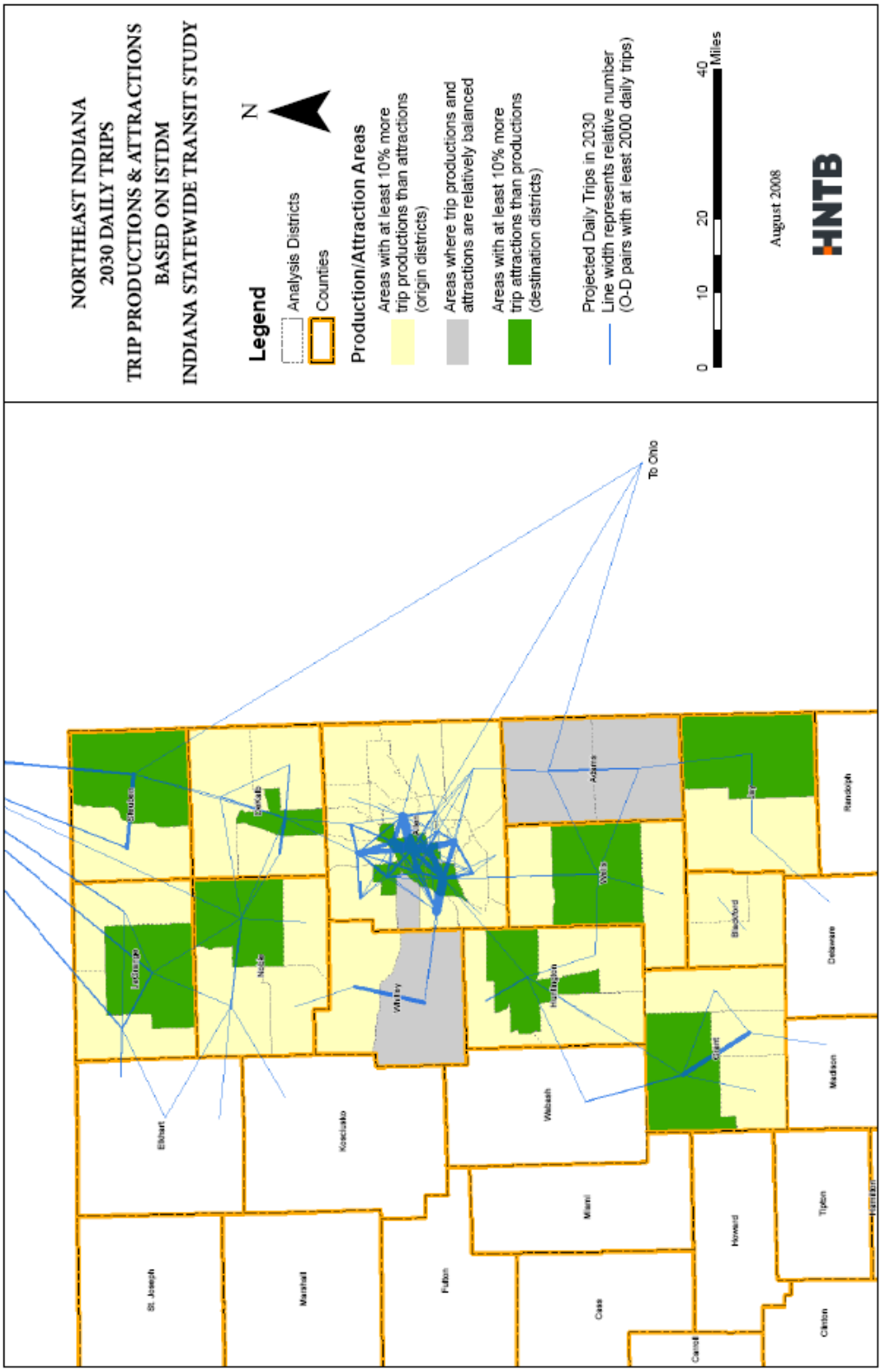


Figure 4 – Travel Patterns in NE Indiana



Quantitative Demand Estimates

Several methods were used to develop quantitative estimates of transit demand in the Northeast Indiana Region. The Mobility Gap method, the Arkansas Public Transportation Needs Assessment (APTNA) method and the Washington State Department of Transportation (WSDOT) method were used to assess demand for rural areas. The Mobility Gap method estimates the transit trips that would result if all zero-auto households in the region were to take as many trips as two-auto households. The APTNA and WSDOT methods estimated demand for rural transit services based on formulas derived in studies of service in Arkansas and Washington. The Mobility Gap method was also used to estimate transit demand in urbanized areas, as was the Mode Split method. The Mode Split method estimates the number of transit trips that would be taken if transit were to serve 1%, 2% or 3% of the total trips in the region. All of these methods are described in Appendix B.

Recognizing the theoretical nature of area-wide transit demand estimates and the influence of specific local conditions on demand, these methods were used to identify a potential range of transit need. The result is a range of demand estimates from low-end estimates of demand for basic service to high-end estimates of demand for high-quality service. This range is best interpreted as an "order of magnitude" demand estimate for transit service in the region. Ultimately, more definitive transit demand estimates must reflect local conditions.

The table below summarizes the results of the demand estimation for rural and urban counties in the Northeast Indiana region in 2007. The number of transit trips provided in the region in 2006, as obtained from the 2006 Indiana Public Transit Annual Report, is also shown for reference[2]. Depending on the method used, demand for transit service in the Northeast Indiana Region was estimated to be between 6,177,000 and 25,439,000 annual one-way trips in 2007. Transit providers in the region collectively served approximately 2,200,000 one-way trips in 2006, which met between 9% and 36% of the estimated regional demand.

Based on the information in Figures 1 through 4 and the estimated demand, it is possible to identify areas with characteristics that generally support fixed-route transit service. In Northeast Indiana, the Fort Wayne metropolitan area within Allen County and the Marion/Gas City area in Grant County are the two areas most likely to support fixed-route transit service. Within the Fort Wayne metro area, downtown Fort Wayne and adjacent areas to the north, northeast, south and southwest provide the best conditions for support of scheduled transit service.

Estimated Transit Demand for Northeast Indiana Region

Area	Estimated 2007 Population	2006 Annual Transit Trips	2007 Transit Demand (Annual Trips)			
			Mobility Gap Method	APTNA Method	WSDOT Method	
Rural Counties	326,500	106,000	9,806,000	966,000	3,696,000	--
			Mobility Gap Method	For 1% Mode Share	For 2% Mode Share	For 3% Mode Share
Fort Wayne Metro	349,500	1,936,000	8,886,000	4,365,000	8,730,000	13,095,000
Marion/Gas City Metro	68,800	178,000	2,014,000	846,000	1,692,000	2,538,000
Urban Total	418,300	2,114,000	10,900,000	5,211,000	10,422,000	15,633,000
Regional Total	**744,800**	**2,220,000**	**Lowest estimate: 6,177,000 (36% of need is met)** **Highest estimate: 25,439,000 (9% of need is met)**			

E.3 Regional Plans & Programs

Within the Fort Wayne metro area, downtown Fort Wayne and adjacent areas to the north, northeast, south and southwest provide the best conditions for support of scheduled transit service. Currently, Citilink provides scheduled transit throughout much of this area. The 2030 transportation plan cites the need to improve service frequency and hours within the existing coverage areas and possibly extend service to the Fort Wayne International Airport (southwest of downtown), Aboite Township (southwest), Perry Township (north), and Cedar Creek Township (northeast). These service improvements and extensions would be within the transit-supportive areas indicated by this study.

Marion Area Transportation System currently offers weekday scheduled service on four routes within Marion, plus hourly service to Gas City and Jonesboro. The system provides good geographic coverage of the transit-supportive area identified in this study. Extending service hours on existing routes to include evenings and weekends should be a focus as funding allows.

Outside the urban areas, rural demand-response transit service is currently provided in Noble, Huntington, Wells, and Jay counties.

E.4 Potential Transit Implementation

The evolution of the urban systems in Indiana has led to several of them being undersized given the population in areas, like Fort Wayne. Many of these systems were much larger in the past before the influx of the automobile. Historically, these transit systems were heavily utilized by the labor force and service has declined with the loss of blue collar workers.

A similar evolution of the system occurred in Charleston, SC (one of the Fort Wayne Peer Systems) although for a different reason. Many Southeastern US transit systems were originally operated by power companies and were reduced in scope as the power companies relinquished control to public authorities. At the end of South Carolina Electric & Gas control of the Charleston Transit System, they made an agreement to endow the City with funding for a period of time as the City took control of the system. In 2002, that funding sunset and the City due to the lack of another funding mechanism, was forced to cut 60% of its service. Since then Charleston has enacted a dedicated sales tax that funds the transit system and is also used for roadway projects. As a result, their system is back up to 66 buses during peak service. The primary issue is funding, because even in the current situation in Fort Wayne could support larger more intensive transit systems. Some cursory research shows that the peer cities have considerably larger fleets.

Peer System Bus Fleet Comparison

System	Bus Fleet	Rail Fleet
Fort Wayne	40	0
Evansville	23	0
Quad Cities	91	0
Little Rock	46	3
Charleston	66	0
Albuquerque	119	0

Continuing to keep in mind that sustainable funding is the core problem inhibiting expansion of these systems, Fort Wayne could realize an order of magnitude difference in ridership just by increasing the frequency on existing routes and without increasing their service area. One of the key issues for these systems as they attempt to attract choice riders is that hourly headways on a route fails to provide the convenience necessary for non-dependent riders to choose to ride the system. Growth in the urban areas continues to move these regions closer to the densities and travel patterns more conducive to transit as a commute option and it will be critical to expand these systems to a level commensurate to the size of the jurisdictions they serve.

Research on existing needs suggest that the major gaps for service in Northeast Indiana exist in the Fort Wayne metropolitan area.

Expansion of local bus service in existing Fort Wayne coverage area

Description of Potential Service: Existing bus service in the Fort Wayne region is provided by Citilink, which has plans to increase the level of service on existing routes as well as provide new connections to growing portions of the region. One key bus connection under consideration is a new service to the airport.

Parallels from Peer Systems:

Peer systems analyzed for the Fort Wayne area include the Quad Cities (IL/IA), Albuquerque (NM), Charleston (SC), and Little Rock (AR).

- Social/Demographic: A 2003 ridership survey indicated that 81% of CARTA customers (Charleston) indicated that they used the bus service because they did not have access to a car or could not drive. Recent service cuts likely mean that this proportion is even higher, as only the basic services are still in place.
- Social/Demographic: A profile of the passengers on Little Rock's CATA system shows that 80% use transit because they cannot drive, and that relatively the same proportion comes from households with one or fewer cars. In addition, 56% earn less than $20,000 per year, even though 60% are employed full time.

Impacts from expanded bus service in Fort Wayne

- Social/Demographic: Expanded service will help provide seniors and sensitive populations with work, shopping and recreational trips.
- Social/Demographic: Airports are generally regional hubs for employment, and access to the airport for flights will also provide access to the airport for employment for numerous commuters.
- Economic Growth: Linking the airport to key destinations such as the Central Business District will improve the environment for business development.
- Environmental Quality: Use of the bus system by more "choice" riders will help reduce air pollutant emissions in the region.

Downtown Fort Wayne fixed guideway

Description of Potential Service: The CitiLoop Trolley is currently operated on weekdays during the summer to provide circulation for lunchtime traffic. This trolley service could be expanded to operate year round and during weekends, or could be upgraded as a fixed guideway system, like a streetcar that connected many of the major tourist and employment destinations in the Central Business District and along the river(s). There are no plans to implement this type of system locally.

Parallels from Peer Systems:

- Peer systems analyzed for the Fort Wayne area include the Quad Cities (IL/IA), Albuquerque (NM), Charleston (SC), and Little Rock (AR).
- Economic Growth: Downtown Albuquerque has a job density of 28,000 per square mile, the densest concentration in the region. But it only contains 5.9% of the regional employment base, with the largest (and fastest growing) concentration of jobs existing along the I-25 Corridor on the City's north side. Just over 10% of the region's jobs are located in this area. Forecasted job growth is expected to reduce the downtown's share of employment, with a dense linear cluster centered on the I-25 Corridor. The City is currently studying the implementation of a streetcar system in its Central Corridor, and is analyzing the economic growth benefits for the downtown and surrounding areas.
- Land Use & Development: The River Rail streetcar in Little Rock has had a major impact on economic development and business in the downtown. One key example is the restaurants and bars in the River Market District, which has become the busiest station for the system. The line was extended in 2007 to provide access to the William Jefferson Clinton Presidential Park and Library. In

the first two years after the opening of the River Rail streetcar in downtown Little Rock, more than $260 million in private and public projects were started within two blocks of the line. This includes two mixed-use developments valued at more than $80 million.

Impacts from downtown Fort Wayne fixed guideway

- Economic Growth: Will improve tourism, employment, and development prospects for downtown Fort Wayne.
- Land Use & Development: These investments improve the value of adjacent property, and add potential for additional residential and employment redevelopment in the downtown.

Increased Demand Response Service throughout the region's rural areas

Description of Potential Service: The needs assessment for the region showed that there is a considerable amount of demand for rural transportation service that is not being met. The introduction of county-wide demand response service into LaGrange, Steuben, DeKalb, Whitley and Adams County (above and beyond what the human service agencies are providing), as well as expanded service in the other counties will be instrumental in moving toward meeting demand.

All of the counties in Indiana have some form of agency-sponsored transportation, whether it is for the elderly under the Older American Act, Medicaid transportation for low income or any of the other 60-plus federal programs sponsoring transportation. The agencies administering these programs are often restricted to serving only qualifying clients for eligible trip purposes. The issue for many areas, especially those that do not have public systems, is that there are many individuals that either do not qualify for a specific program or in many cases have need to make a trip that is not eligible under the program rules.

Impacts from increased Demand Response service:

Improvement to rural demand response service provides increased mobility and quality of life for transit dependent populations that do not qualify for human service agency sponsored services. Increased transportation for these populations provides the following benefits.

- Increased access to employment for low-income populations which allows less reliance on other government programs. The Virginia Transit Association finds that provide access for one disabled individual to employment saves $7,000 per individual per year in in-home services.
- More consistent access to medical coverage which improves overall health for the individual, but can also save the county (jurisdiction) money due to reduced emergency rooms visits, usage of emergency services and need for in-home or other specialized medical services sponsored by the county. The Virginia Transit Association finds that providing transportation to elderly individuals helps reduce the reliance of other publicly sponsored services.

Cost of In-Home Services to Elderly (Virginia Transit Association)

Service	Average costs annually	Cost per recipient
Home meals	$3.4 million	$385 per recipient
Home health services	$8.6 million	$959 per recipient
Adult day care	$1.3 million	$3,634 per recipient
Personal care	$74.3 million	$7,434 per recipient
Nursing facility care	$393.3 million	$14,241 per recipient

4.4.1 Stakeholder/Poll Regional Summary

There was very high opinion of transit among stakeholders in the Northeast Region, in terms of its benefit to the mobility of transit dependent populations, positive impact on the economy and energy use. However, many of the respondents questioned the productivity and viability of transit in the region. The greatest drawback of transit is the low ridership on existing services, and convenience of the system was not a prominent benefit according to stakeholders.

Stakeholders felt that the public's view of transit was that it was more of a public service rather than a commute option, which was corroborated by the public opinion poll. Northeast Indiana had the highest percentage of people who had never tried transit, and the clear priority for transit in the region was to serve transit dependent populations.

Most of those interviewed cited the rural portions of the region as the area with the most need for new service, including the far northeast corner. There is also interest in improving service between communities (Kendallville – Huntington – Columbia City) within the region, and also a stated need for more inter-regional service to Muncie and Indianapolis.

The public opinion poll yielded a number of interesting results for Northeast Indiana (more information about the poll is included in Section 2 and Appendix XX).

- Northeast Indiana had the lowest incidence of daily riders (1.1%) and the second lowest percentage of regular riders (riding at least weekly – Statewide Avg. 5%).

Percentage of Regular Transit Users (By Region)

NW	NE	WC	SE	SW	C
2.8%	3.2%	5.2%	5.7%	6.1%	6.9%

- All regions of the State felt that the number one benefit of transit is the transportation cost savings to the user followed by environmental benefits. Northeast Indiana had the highest percentage of individuals who found the cost savings to the user as the number one benefit.
- In terms of funding, two-thirds of those responding statewide felt a need to generate more funds for transit and most consider a mix of funding methods is the best approach. About 37% of Hoosiers support the idea of generating

additional funds by raising at least one type of tax (Sales tax was the most common at 15.3%). Northeast Indiana had very similar responses to the overall State, however, it had the lowest percentage of individuals amenable to an increase in some type of tax and also was the most adamant about increased funding being in local control. Most respondents suggested that other funding mechanisms be implemented.

- In terms of transportation priorities most of the State felt that the maintenance of existing roads and highways should be the top priority. Across the board the regions all had improved service for transportation disadvantaged populations, improving bus and then improve rail transportation as the second, third and fourth priorities, respectively, except for Northeast Indiana. It was the only region that placed the construction of new roads and highways ahead of rail transportation, but not bus transportation.

4.4.2 Summary

For a metropolitan area of nearly 350,000, transit in Fort Wayne needs to alter the view the public that transit is more of a public service than a commute option, which is supported by the stakeholder interviews and public opinion poll. Northeast Indiana had the highest percentage of people who had never tried transit, and the clear priority for transit in the region is to serve transit dependent populations. Focusing on convenience through increased frequency of service and the introduction express bus service and a vanpool program is critical to attract choice riders and ultimately achieve the benefits addressed by PL 203.

Introduction of new rural transportation into the several counties that currently are not served beyond human service transportation is vital to improving the mobility of those without options.

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The following tables illustrate the estimated cost of the increases by type of service, which include expansion of two fixed route systems, the addition of fixed guideway service in Fort Wayne and substantial increases in rural transportation.

Table 3.4 – Cost estimate for Northeast Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$2.3	$11.6	$10.1	$202.0	$406.8
Vanpool	n/a	$1.0	0		$18.0
Urban Bus	$10.1	$33.8	$13.9	$278.0	$886.4
Fixed Guideway	0	$4.5	$7.2	$1440.	$225.0
Total	$12.4	$50.9	$31.2	$624.0	$1,540.2

In millions 2008 $ - no escalation.

Cost Breakdown

Northwest Indiana	Annual	One Time Expenditures			Annual	Annual	Annual
	Existing O&M	New Rolling Stock	Other Capital Expenditures	Major Investments	Capital Support	Replacement Rolling Stock	Year 30 O&M
Rural Service	$2.3	$16.2	$9.3	-	$1.7	$6.0	$11.6
Urban Bus	$10.1	$29.9	$18.9	-	$4.2	$4.2	$33.9
Vanpool	-	-	-	-	-	-	$1.0
Rail	-	-	-	$100.0	$1.7	$1.0	$ 4.5

Major Investments	Fort Wayne Downtown	2015/2025	$100M

Assumptions: Major Investment Costs include fleet and support facilities.
Other Capital includes maintenance and support facilities for expanded fleets.
Capital Support includes maintenance of facilities, rehab vehicles, technology support, etc.
Replacement based on FTA life-cycle standards 25 yrs. for railcar, 12 yrs. for large buses, 7 yrs. for small/med buses, 5 yrs. for vans/smaller vehicles.

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[1] Based on the information in Figures 1 through 4 and the estimated demand, it is possible to identify areas with characteristics that generally support fixed-route transit service. In Northeast Indiana, the Fort Wayne metropolitan area within Allen County and the Marion/Gas City area in Grant County are the two areas most likely to support fixed-route transit service. Within the Fort Wayne metro area, downtown Fort Wayne and adjacent areas to the north, northeast, south and southwest provide the best conditions for support of scheduled transit service.

[2] A breakdown of trips by county as provided by multi-county transit providers was estimated based on relative county populations, as this information is not available from the report. The 2006 ridership does not reflect private Section 5310 service providers that do not provide ridership data to the state.

Appendix F
Indiana Mass Transit Studies
PL 203-2007

Indiana Department of Transportation
December 2008

Appendix F
West Central Indiana

This region largely lies between the Indianapolis metro area to the east and the Illinois border to the west. The distinction of rural and urban counties in the West Central Indiana region is as follows:

Rural Counties: ***Benton, Carroll, Clay, Clinton, Fountain, Montgomery, Owen, Parke, Putnam, Tipton, Vermillion, Warren, and White***

Urban Counties: ***Kokomo Metropolitan Area (Howard), Lafayette/West Lafayette Metropolitan Area (Tippecanoe), and Terre Haute Metropolitan Area (Vigo)***

F.1 Economic Trends

Population

Overall population growth in West Central Indiana has been steady but below the rate of growth statewide. This is the second least populated region of the State.

The Lafayette metro area is the largest in this region, and the twin cities of Lafayette and West Lafayette have each experienced population growth since the year 2000.

Major Cities or Towns (>30,000 population)

	2000 Pop.	2007 Pop.
Lafayette	61,256	63,679
Terre Haute	59,518	58,932
Kokomo	46,899	45,902
West Lafayette	28,760	31,079

Population Changes, 1990 - 2010

	Regional Population	% of State	State Population
1990	581,044	10.5%	5,544,156
2000	627,528	10.3%	6,081,939
2007 (estimate)	637,687	10.0%	6,345,289
2010 (projection)	647,866	10.1%	6,417,198
% change (1990 - 2000)	8.0%	n/a	9.7%
% change (2000 - 2010)	3.2%	n/a	5.5%

Income & employment

Manufacturing maintains a high proportion of the employment in the West Central region of the State, and the area has been susceptible to downward trends in employment.

This region experienced the highest rate of job decline during the period 1996 to 2006. In addition, the unemployment rate is higher than the State average and the per capital income is the lowest in the State. Figure 2 shows the general location of major employment areas in the region, based on the year 2000 employment data available in the ISTDM

Labor Force Data, 2006

Resident Labor Force	313,625
Unemployment Rate	5.2%
Per Capita Personal Income	$28,020
10-year adjusted change	8.1%

Total Employment

		% of Region
Total Covered Employment - BLS (2006)	257,096	
Manufacturing	64,233	*25.0%*
Professional/Technical Services	4,832	*1.9%*
10-Year % Change	-2.3%	

Land use & development

This region has a high proportion of agriculture and a lack of major metro areas, making it one of the least densely populated.

Residential Density & Development

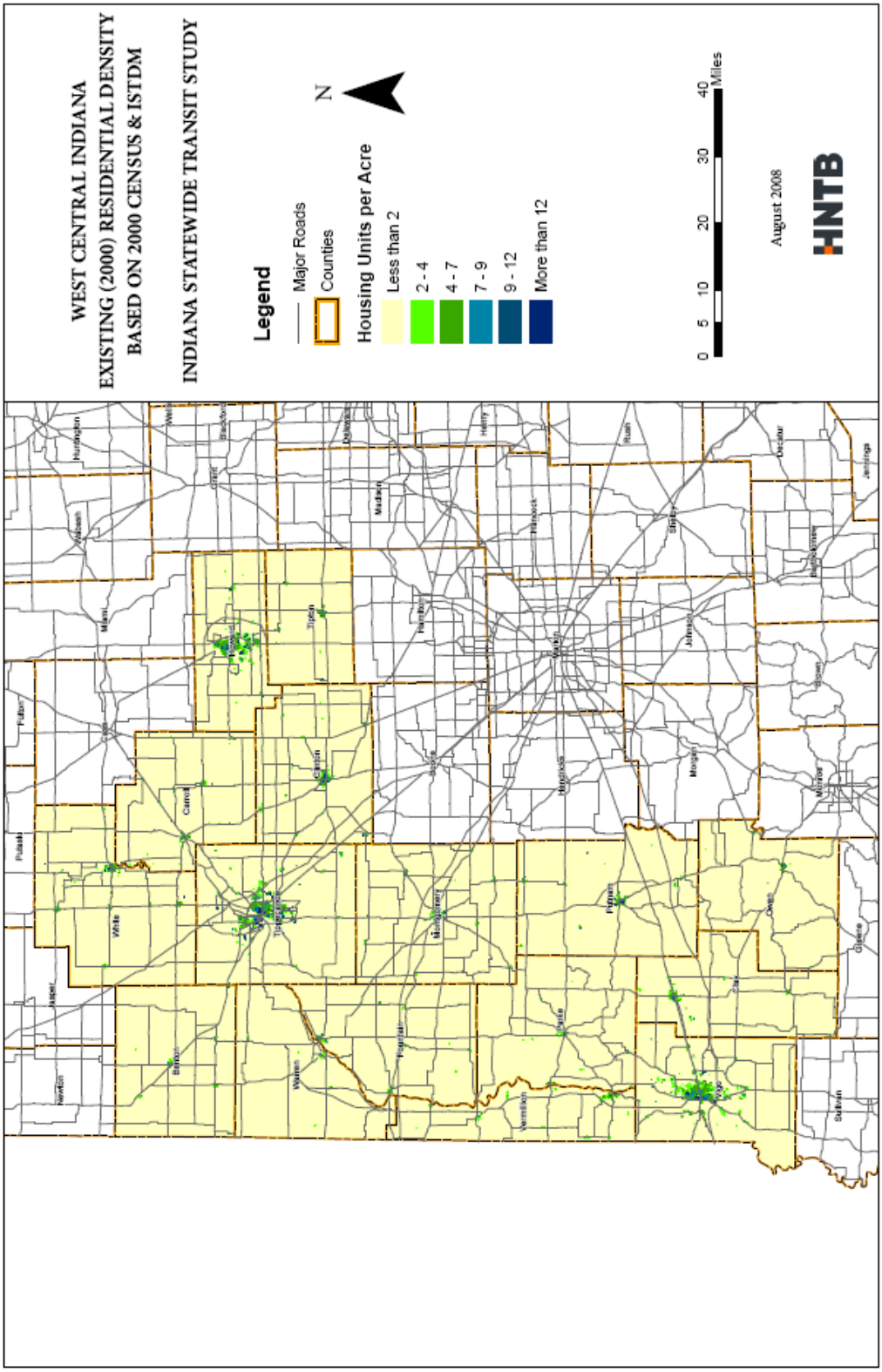
Land Area (sq mi)	6,335
Population Density (2007)	101
Residential Building Permits (2007)	2,019
Residential Building Permits (2006)	2,101

Residential construction was relatively unchanged from 2006 to 2007, reflecting both lack of a local housing "bubble" and the low level of previous activity. Figure 1 shows housing unit densities across the West Central Indiana Region.

Sub-Regional Trends

- Lafayette and West Lafayette are among the larger cities in the State to avoid declines in population. This area's economic base less reliant on manufacturing, and tempered by the presence of Purdue University.
- The Kokomo metro area is expected to lag behind the State averages for economic growth. Perhaps the brightest spot for the area comes from value growth in the agricultural sector, which remains a staple of the West Central region.

Figure 1 – Residential Density in WC Indiana



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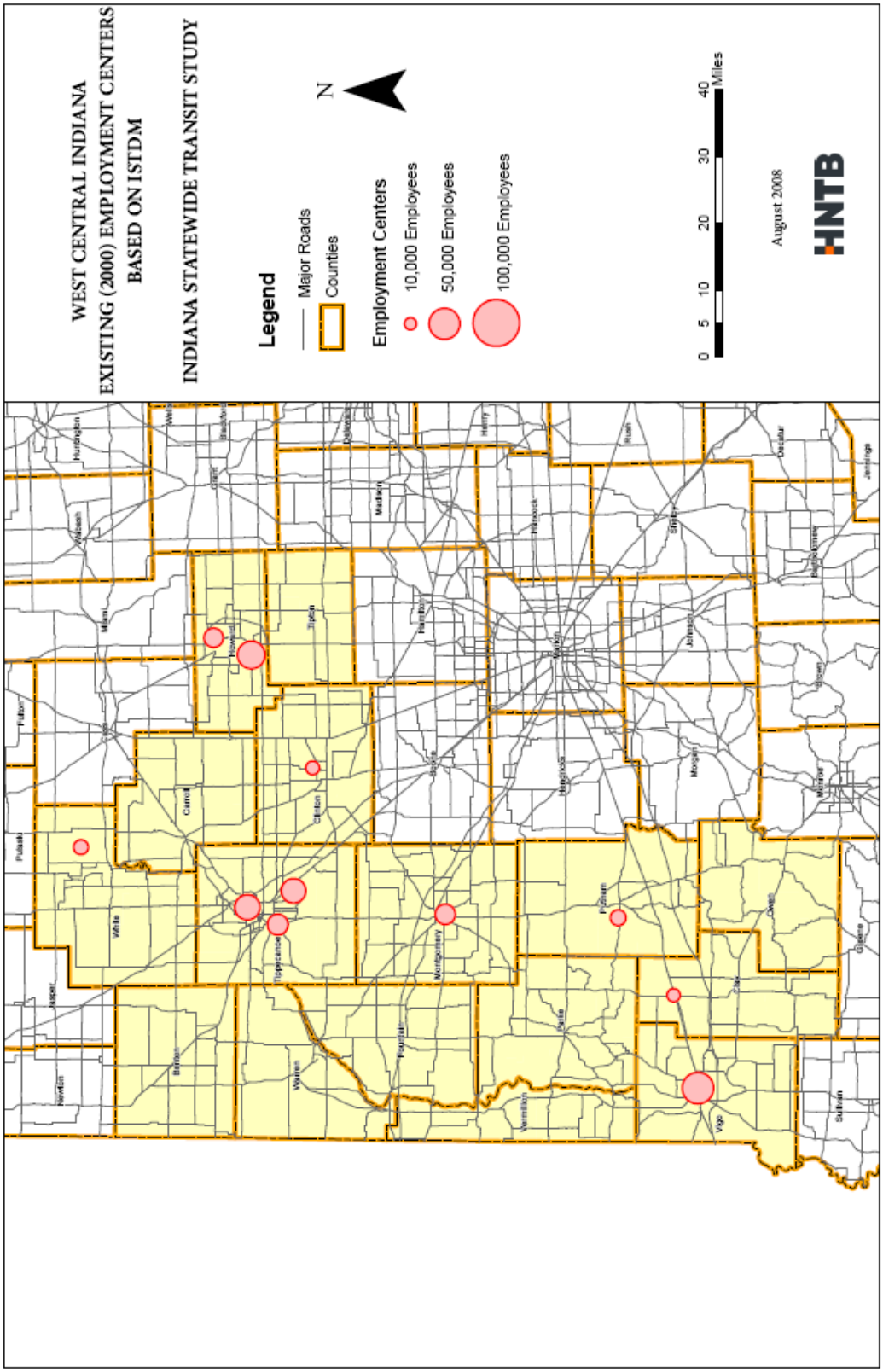
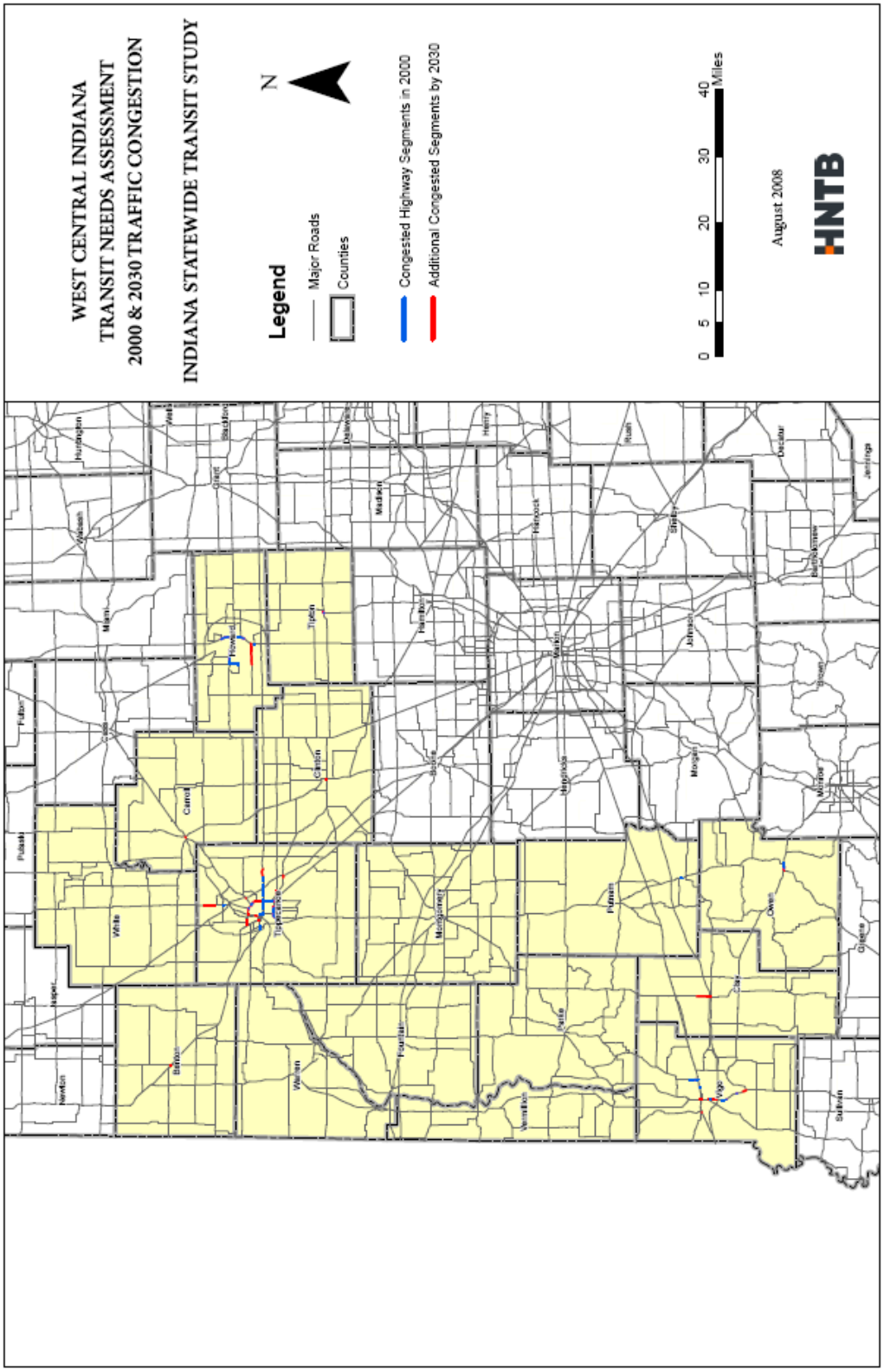


Figure 3 – Congested Roadways in WC Indiana[1]



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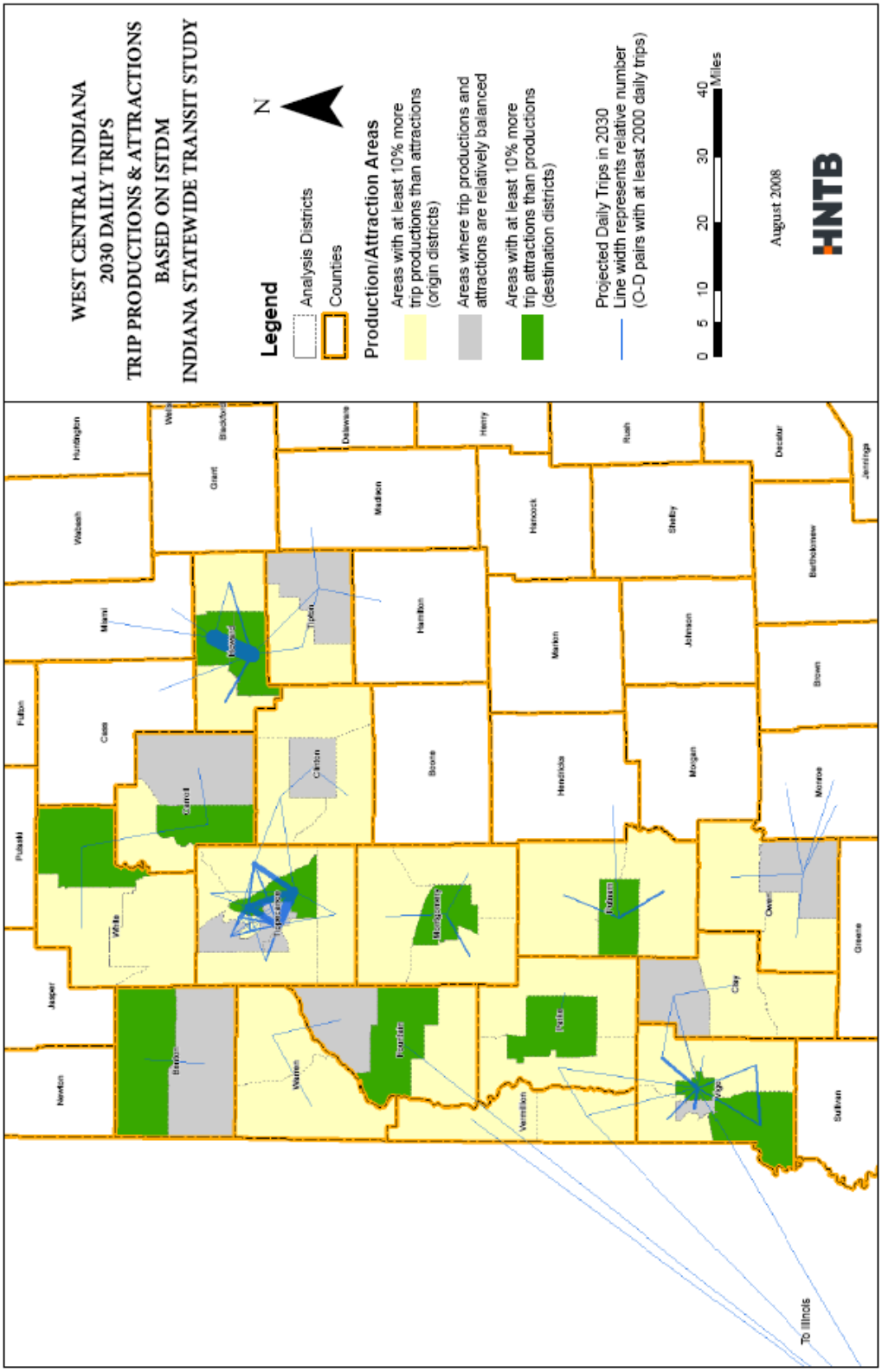

F.2 Transit Needs Assessment

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In addition to land use information, regional travel demand and traffic congestion information were used to help identify transit-supportive areas. This information was obtained from the Indiana Statewide Travel Demand Model maintained by INDOT.

Figure 3, shows congested highway corridors in the West Central Indiana Region. Existing congestion is primarily concentrated in the three metropolitan areas (Kokomo, Lafayette/West Lafayette, and Terre Haute). By 2030, the number of congested roadways in these areas is projected to increase, and pockets of congestion are projected in Clay, Clinton, and Owen counties.

Figure 4 displays projected trip patterns within the West Central Indiana region for the year 2030. Table 1 shows projected major trip flows between counties in the region for all modes of transportation in 2030.

2030 Projected Inter-county Trips in West Central Indiana

Counties	Daily Person-trips between Counties (2030 Projection)
Clay & Vigo	30,000
Monroe & Owen	30,000
Clinton & Tippecanoe	26,000

Quantitative Demand Estimates

Several methods were used to develop quantitative estimates of transit demand in the West Central Indiana Region. The Mobility Gap method, the Arkansas Public Transportation Needs Assessment (APTNA) method and the Washington State Department of Transportation (WSDOT) method were used to assess demand for rural areas. The Mobility Gap method estimates the transit trips that would result if all zero-auto households in the region were to take as many trips as two-auto households. The APTNA and WSDOT methods estimated demand for rural transit services based on formulas derived in studies of service in Arkansas and Washington.

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The table below summarizes the results of the demand estimation for rural and urban counties in the West Central Indiana region in 2007. The number of transit trips provided in the region in 2006, as obtained from the 2006 Indiana Public Transit Annual Report, is also shown for reference[2]. Depending on the method used, demand for transit service in the West Central Indiana Region was estimated to be between 5,372,000 and 19,668,000 annual one-way trips in 2007. Transit providers in the region collectively served approximately 4,739.000 one-way trips in 2006, which met between 24% and 88% of the estimated regional demand.

Estimated Transit Demand for West Central Indiana Region

Area	Estimated 2007 Population	2006 Annual Transit Trips	2007 Transit Demand (Annual Trips)			
			Mobility Gap Method	APTNA Method	WSDOT Method	
Rural Counties	285,600	57,000	6,362,000	937,000	3,368,000	--
			Mobility Gap Method	For 1% Mode Share	For 2% Mode Share	For 3% Mode Share
Lafayette/West Lafayette Metro	163,400	4,353,000	3,846,000	1,934,000	3,869,000	5,803,000
Terre Haute Metro	104,900	185,000	3,459,000	1,352,000	2,704,000	4,056,000
Kokomo Metro	83,800	144,000	2,392,000	1,149,000	2,298,000	3,447,000
Urban Total	352,100	4,682,000	9,697,000	4,435,000	8,871,000	13,306,000
Regional Total	**637,700**	**4,739,000**	**Lowest estimate: 5,372,000 (88% of need is met)** **Highest estimate: 19,668,000 (24% of need is met)**			

Based on the information in Figures 1 through 4 and the demand estimate, it is possible to identify areas with characteristics that generally support fixed-route transit service. In West Central Indiana, fixed-route transit service is most viable in the immediate vicinity of the three metropolitan areas of Lafayette/West Lafayette, Terre Haute and Kokomo.

F.3 Regional Plans & Programs

In the Lafayette/West Lafayette area, City Bus provides fixed-route service to most areas within the city limits. This includes fourteen regular routes, eight campus loop routes on the Purdue campus, one privately-funded shuttle route, and a fare-free downtown trolley loop. Students at Purdue are assessed a fee by semester which allows the transit system to offer extended service hours for the university. Students ride the system for no additional fare.

City Bus has planned service extensions in the eastern sections of Lafayette to serve the new hospital and in the southern part of Lafayette to serve the growing commercial and residential development in the area. Service improvements in South Lafayette could include express bus service to the Purdue campus. The City Bus strategic plan identifies additional areas that could merit service expansion due to future development, including parts of Wea, Fairfield, Perry, and Wabash townships and the towns of Battle Ground, Clarks Hill, and Dayton. These plans are generally consistent with the findings of this study.

In Terre Haute, City Bus provides fixed-route service along seven routes throughout most areas of the city. The city recently completed construction on a new inter-modal transfer center for City Bus and Greyhound on the Indiana State University campus near downtown. Plans call for enhancements to the existing system, such as increased service frequency or extended service hours.

In Kokomo, there is currently no fixed-route bus service. The First City Rider program provides demand-response service through subsidized taxi service. The city also provides a free demand-response service for senior citizens. The Kokomo MPO Long Range Plan calls for continued funding of these demand-response services. Kokomo is large enough, and has a dense enough concentration of population and employment, that it should be able to support a fixed-route bus system. The City; however, has been satisfied with their current service and has bo immediate plans to implement fixed route services.

Although the West Central Indiana region has a relatively low level of transit demand compared to other regions in the state, it has the highest percentage of demand met by existing service, 24% to 88%. Much of this can be attributed to the high student population of Purdue and the robust transit service offered in the Lafayette/West Lafayette area, which currently has service levels that exceed a 2% transit mode share.

Relatively few areas in the West Central region have rural demand-response service available currently. This service is available in the towns of Brookston, Rossville, Boswell, Clarks Hill, Hillsboro, and Waveland; and in White, Clinton, and Owen counties.

F.4 Potential Transit Implementation

In addition to expansion of the transit service within the urbanized areas, the West Central Indiana should increase service to the rural areas of the region. Similar to the Southwest Region, the West Central region has more counties without public transportation than those that do. There are a number of communities with services but Clinton and White Counties are the only two with public transit service above and beyond those provided by human service agencies.

Lafayette/West Lafayette & Terre Haute bus service expansions

Description of Potential Service: There are opportunities for expansion of the coverage area and service levels for the existing bus systems in Lafayette and Terre Haute. Each of these systems serves large university student populations as well as the general public, which allows for potentially higher levels of ridership. A key focus should be to expand the hours and frequency of service.

Parallels from Peer Systems:

Peer systems analyzed for Lafayette/West Lafayette and Terre Haute include Champaign (IL), Fort Collins (CO), and Chapel Hill (NC.

- Social/Demographic: Due to the presence of large student populations, college/university towns often have very high poverty rates and thus very high proportions of transit dependent populations. Due to its large student population in Chapel Hill, Orange County has the highest poverty rate of any county in the Raleigh-Durham metropolitan region. This group allows for more flexible and well-utilized transit systems.
- Social/Demographic: In university/college towns, the social group which drives transit usage is the people who work at or attend the institution. In 1990, the University of Illinois and the MTD began a partnership where students and faculty were given unlimited access to bus services in exchange for a mandatory student fee. This effectively tripled annual usage of the system immediately, and ridership has continued to grow since. A dramatic fall-off in ridership occurs during the summer months when school is not in session. An on-board rider survey of MTD routes shows that students make up 96% of ridership on the campus routes and 66% of ridership on the city routes. Overall, trips to and from work make up only 1/3rd of trips on city routes.
- Economic Growth: Purdue University has helped to drive economic growth in the Lafayette area, and transit systems can help to bolster that growth. The City of Chapel Hill is the only portion of the Durham region where employment growth is expected to outpace population growth. The areas of growth are slated to occur around the hospital and to the north of the campus.
- Congestion Mitigation: It is estimated that the transit system in Lafayette (operated by CityBus) reduces annual highway/road trips by 2.3 million, which translates to 10.3 million vehicle miles traveled (VMT). This also reduces air pollutants in the region.

- Land Use & Development: The Wabash Trolley has had a clear impact on property values and economic development in downtown Lafayette. Passenger surveys on the service indicate that 68% agree that the service makes it more likely that they would travel to downtown Lafayette, and 78% claimed that the existence of the trolley was a positive factor in determining where they live.
- Land Use & Development: The Mason Street Corridor project in Fort Collins (an express fixed-route bus line through the City) has been combined with a redevelopment strategy which has identified key sites near the Drake Road Station and South Transit Center for transit-oriented development. The early identification and planning for impacts prior to the implementation of transit can be a key stimulus for achieving the positive development benefit.

Impacts from bus system expansion in Lafayette and Terre Haute

- Social/Demographic: Likely to improve access to jobs for numerous transit dependent populations, including students.
- Economic Growth: Transit service will support growth in the Lafayette and Terre Haute regions, which as university towns have potential for contributing to positive economic and employment growth in the State.
- Environmental Quality: Will reduce automobile-based air pollutants if transit local bus routes are well utilized.

Increased Demand Response Service throughout the region's rural areas

Description of Potential Service: The needs assessment for the region showed that there is a considerable amount of demand for rural transportation service that is not being met. The introduction of county-wide demand response service into Benton, Warren, Fountain, Vermillion, Vigo, Clay, Parke, Montgomery, Putnam, Owen, Carroll, Howard and Tipton Counties above and beyond what the human service agencies are providing, as well as expanded service in the other counties will be instrumental in moving toward meeting demand.

All of the counties in Indiana have some form of agency-sponsored transportation, whether it is for the elderly under the Older American Act, Medicaid transportation for low income or any of the other 60-plus federal programs sponsoring transportation. The agencies administering these programs are often restricted to serving only qualifying clients for eligible trip purposes. The issue for many areas, especially those that do not have public systems, is that there are many individuals that either do not qualify for a specific program or in many cases have need to make a trip that is not eligible under the program rules.

Impacts from increased Demand Response service:

Improvement to rural demand response service provides increased mobility and quality of life for transit dependent populations that do not qualify for human service agency sponsored services. Increased transportation for these populations provides the following benefits.

- Increased access to employment for low-income populations which allows less reliance on other government programs. The Virginia Transit Association finds that providing access for one disabled individual to employment saves $7,000 per individual per year in in-home services.
- More consistent access to medical coverage which improves overall health for the individual, but can also save the county (jurisdiction) money due to reduced emergency rooms visits, usage of emergency services and need for in-home or other specialized medical services sponsored by the county. The Virginia Transit Association finds that providing transportation to elderly individuals helps reduce the reliance of other publicly sponsored services.

Cost of In-Home Services to Elderly (Virginia Transit Association)

Service	Average costs annually	Cost per recipient
Home meals	$3.4 million	$385 per recipient
Home health services	$8.6 million	$959 per recipient
Adult day care	$1.3 million	$3,634 per recipient
Personal care	$74.3 million	$7,434 per recipient
Nursing facility care	$393.3 million	$14,241 per recipient

Increased service in Kokomo

Description of Potential Service: Kokomo currently has only demand-response service in its region, but has unmet demand in the area that could be met by introducing fixed-route bus service or increased demand response services targeting key employment, retail and healthcare locations.

Parallels from Peer Systems:
Peer systems studied for the Kokomo area include Traverse City (MI), Paducah (KY), and Florence (SC).

- Social/Demographic: The Florence area has higher poverty levels than the state of South Carolina as a whole, with levels over 16% in Florence County. Many of these residents live in rural portions of the region. The regional transit agency (PDRTA) has made a deliberate shift away from standard fixed-route services and to more targeted demand-response or other services intended to match workers to jobs. This has resulted in more efficiency and improved ridership.

Impacts from expanded bus service in Kokomo

- Social/Demographic: Expanded service will help provide seniors and sensitive populations with work, shopping and recreational trips.
- Environmental Quality: Use of the bus system by more "choice" riders will help reduce air pollutant emissions in the region.

F.5 Stakeholder/Poll Regional Summary

Stakeholders in West Central Indiana cited the economic and environmental benefits as the most important aspects of transit. The service in the region, especially in Lafayette is considered to be operated well with the primary criticism of transit being that the service does offer enough flexibility or convenience to the user.

Stakeholders felt that the public's view of transit was that it was more of a public service rather than a commute option, which was corroborated by the public opinion poll. However, statistically West Central Indiana is meeting the highest percentage of demand according to the needs assessment. There is a sense that the university communities of Terre Haute and Lafayette support transit because of the perceived environmental benefits.

Most of those interviewed cited the rural portions of the region as the area with the most need for new service, including the western edge of the region. There is interest also in improving service between communities (Kokomo to Lafayette) and service from Crawfordsville and Danville within the region but also a need for more inter-regional service to Indianapolis.

All of those interviewed cited the need for increased funding for transit. They generally agreed that more financial support from the State is necessary but also understood that the region itself needed a more aggressive approach to generating funds for transit.

The public opinion poll yielded a number of interesting results for the West Central Region (more information about the poll is included in Section 2 and Appendix J).

- West Central Indiana was very close to the state averages in terms of incidence of daily riders (2.2%) and the percentage of regular riders (riding at least weekly – Statewide Avg. 5%). 86.7% of those in the West Central region have never tried transit.

Percentage of Regular Transit Users (By Region)

NW	NE	WC	SE	SW	C
2.8%	3.2%	5.2%	5.7%	6.1%	6.9%

- The survey included a question about the threshold of gas prices before the respondent would transition from their current mode of transportation to using transit. The lowest report threshold was in the West Central region at $2.73 per gallon, while the state average was $3.23. Fifty-five percent of those responding claimed that there was no public transit available to them, which was the lowest percentage outside the Central and Northwest regions in the State.
- All regions of the State felt that the number one benefit of transit is the transportation cost savings to the user, followed by environmental benefits. West Central Indiana had the lowest percentage of individuals who found the

cost savings to the user as the number one benefit and generally had a much broader range of perceived benefits.

- In terms of the drawbacks of transit, West Central Indiana also agreed with the rest of the State, citing issue with convenience and service coverage.
- In terms of funding, two-thirds of those responding statewide felt a need to generate more funds for transit and most consider a mix of funding methods is the best approach. About 37% of Hoosiers support the idea of generating additional funds by raising at least one type of tax (Sales tax was the most common at 15.3%). The responses in West Central Indiana were very similar to the overall State; however, it had the highest percentage of individuals amenable to an increase in some type of tax and also was divided between state and local control. Sales and income tax were the most popular types of tax identified as potential funding sources.
- In terms of transportation priorities, most of the State felt that the maintenance of existing roads and highways should be the top priority. Across the board the regions all had improved service for transportation disadvantaged populations, improving bus and then improving rail transportation as the second, third and fourth priorities, respectively. However, West Central identified expansion of roads as a higher priority than improving rail transportation.

F.6 Summary

Statistically, West Central Indiana is meeting the highest percentage of demand according to the needs assessment, which can be attributed to the captive ridership typically served in university communities. Stakeholders believe that the university communities of Terre Haute and Lafayette support transit because of the perceived environmental benefits which is supported by the findings in the public opinion poll. According to poll results, the residents are more sensitive to fuel prices by virtue of having the lowest threshold of any region before considering alternative modes of travel ($2.73). Future expansion should take advantage of the critical mass of trip demand from the university population to create services that also cater to commutes to other employment centers.

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The following tables illustrate the cost of the increases by type of service. Service expansion includes 100-150% increases in level of service for each of the bus systems and additional of rural services. A summary of potential funding sources is included in Section 5 of the main report.

Cost Estimate for West Central Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$0.54	$2.4	$2.9	$58.0	$101.2
Vanpool	n/a	$0.75	0		$13.5
Urban Bus	$10.6	$26.4	$16.4	$328.0	$803.2
Fixed Guideway	0	0	0	0	0
Total	$11.1	$29.6	$19.3	$386.0	$917.9

In millions 2008 $ - no escalation.

Cost Breakdown

Northwest Indiana	Annual	One Time Expenditures			Annual	Annual	Annual
	Existing O&M	New Rolling Stock	Other Capital Expenditures	Major Investments	Capital Support	Replacement Rolling Stock	Year 30 O&M
Rural Service	$0.5	$3.1	$1.8	-	$0.5	$1.3	$2.4
Urban Bus	$10.6	$32.2	$22.9	-	$4.7	$5.0	$26.4
Vanpool	-	-	-	-	-	-	$1.5
Rail	-	-	-	-	-	-	-

Major Investments None

Assumptions: Other Capital includes maintenance and support facilities for expanded fleets.
Capital Support includes maintenance of facilities, rehab vehicles, technology support, etc.
Replacement based on FTA life-cycle standards 25 yrs. for railcar, 12 yrs. for large buses, 7 yrs. for small/med buses, 5 yrs. for vans/smaller vehicles.

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[1] This analysis used an ISTDM highway network dated May 9, 2005, and the ISTDM model script developed for TransCAD 4.8. The model runs were based on the 2000 base year and 2030 Long Range Plan highway networks in the ISTDM. Congestion was defined using the POST_ALT procedure in the ISTDM, identifying all facilities with a Level of Service E or F.

[2] A breakdown of trips by county as provided by multi-county transit providers was estimated based on relative county populations, as this information is not available from the report. The 2006 ridership does not reflect private Section 5310 service providers that do not provide ridership data to the state.

Appendix G
Indiana Mass Transit Studies
PL 203-2007

Indiana Department of Transportation
December 2008

Appendix G
Southeast Indiana

Southeast Indiana includes the areas of the State bordering Kentucky and Ohio, including portions of the metro areas for Cincinnati and Louisville. The distinction of rural and urban counties in the Southeast Indiana region is as follows:

Rural Counties: ***Brown, Decatur, Fayette, Franklin, Harrison, Henry, Jackson, Jefferson, Jennings, Ohio, Randolph, Ripley, Rush, Scott, Switzerland, Union, and Washington***

Urban Counties: ***Cincinnati Metropolitan Area (Dearborn), Columbus Metropolitan Area (Bartholomew), Louisville Metropolitan Area (Clark and Floyd), and Richmond Metropolitan Area (Wayne)***

G.1 Economic Trends

Population

This is the largest region in this grouping in terms of geographical size, and the third-largest in terms of population. Growth has been below State averages, but is generally higher than the remainder of the State (outside the Central region).

Major Cities or Towns (>30,000 population)

	2000 Pop.	2007 Pop.
Columbus	39,252	39,817
New Albany	37,841	37,033
Richmond	39,103	36,993

Population Changes

	Regional Population	% of State	State Population
1990	713,788	12.9%	5,544,156
2000	770,891	12.7%	6,081,939
2007 (estimate)	789,950	12.4%	6,345,289
2010 (projection)	797,281	12.4%	6,417,198
% change (1990 - 2000)	8.0%	n/a	9.7%
% change (2000 - 2010)	3.4%	n/a	5.5%

The City of Columbus is the largest in the region, and has a steady, slightly growing population. There are no major cities in the metro area of Cincinnati, but New Albany and the surrounding Indiana cities in the Louisville area have been growing in recent years faster than the corresponding portion of the metro area in Kentucky.

Income & employment

The employment base in the Southeast has grown 5% since 1996, the highest of any region outside the Central portion of the State. This is despite a high proportion of manufacturing employment, and a higher than average unemployment rate.

Labor Force Data, 2006	
Resident Labor Force	406,134
Unemployment Rate	5.2%
Per Capita Personal Income	$30,111
10-year adjusted change	12.9%

Per capita income has risen significantly over the previous 10 years. Figure 2 shows the general location of major employment areas in the region, based on the year 2000 employment data available in the ISTDM.

Total Employment		
		% of Region
Total Covered Employment – BLS (2006)	305,346	-
Manufacturing	74,138	*24.3%*
Professional/Technical Services	4,324	*1.4%*
10-Year % Change	5.0%	-

Land use & development

The largest region of the state is also nearly the least-densely populated. Residential construction trends in the region have seen a slow down in the past year.

Residential Density & Development	
Land Area (sq mi)	7,532
Population Density (2007)	105
Residential Building Permits (2007)	2,876
Residential Building Permits (2006)	3,351

This region has the highest basis of agricultural land and employment in the State. As of 1999, 17.4% of the assessed land value in the Southeast region was agricultural (compared to 9.6% statewide). Figure 1 shows housing unit densities across the Southeast Indiana Region.

Sub-Regional Trends

- The Columbus metro area is something of an anomaly in the State—a heavily manufacturing-oriented economy which has escaped major job losses. The sector still accounts for about 36% of Columbus jobs in 2007.

Figure 1 – Residential Density in SE Indiana

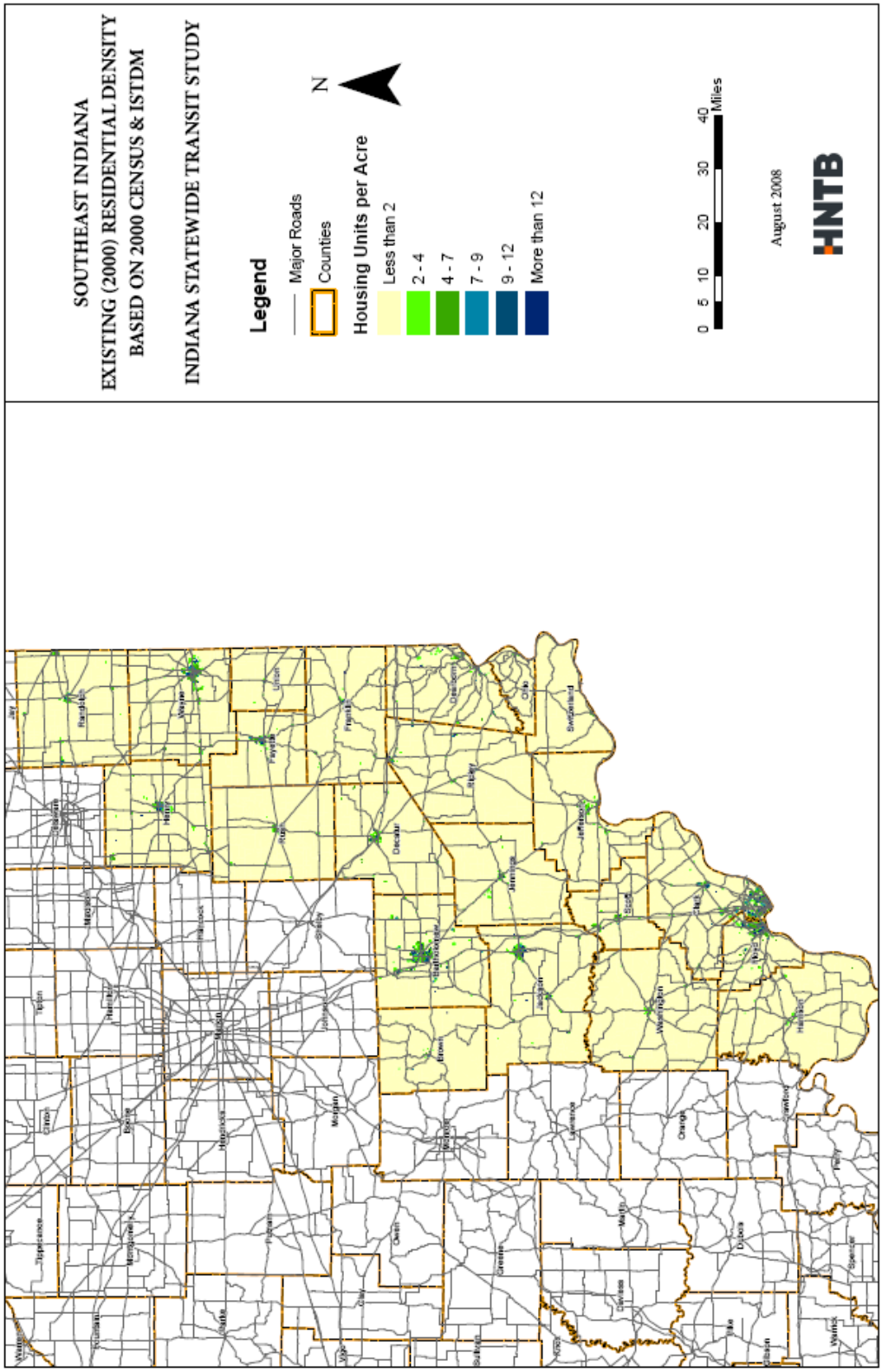


Figure 2 – Employment Centers in SE Indiana

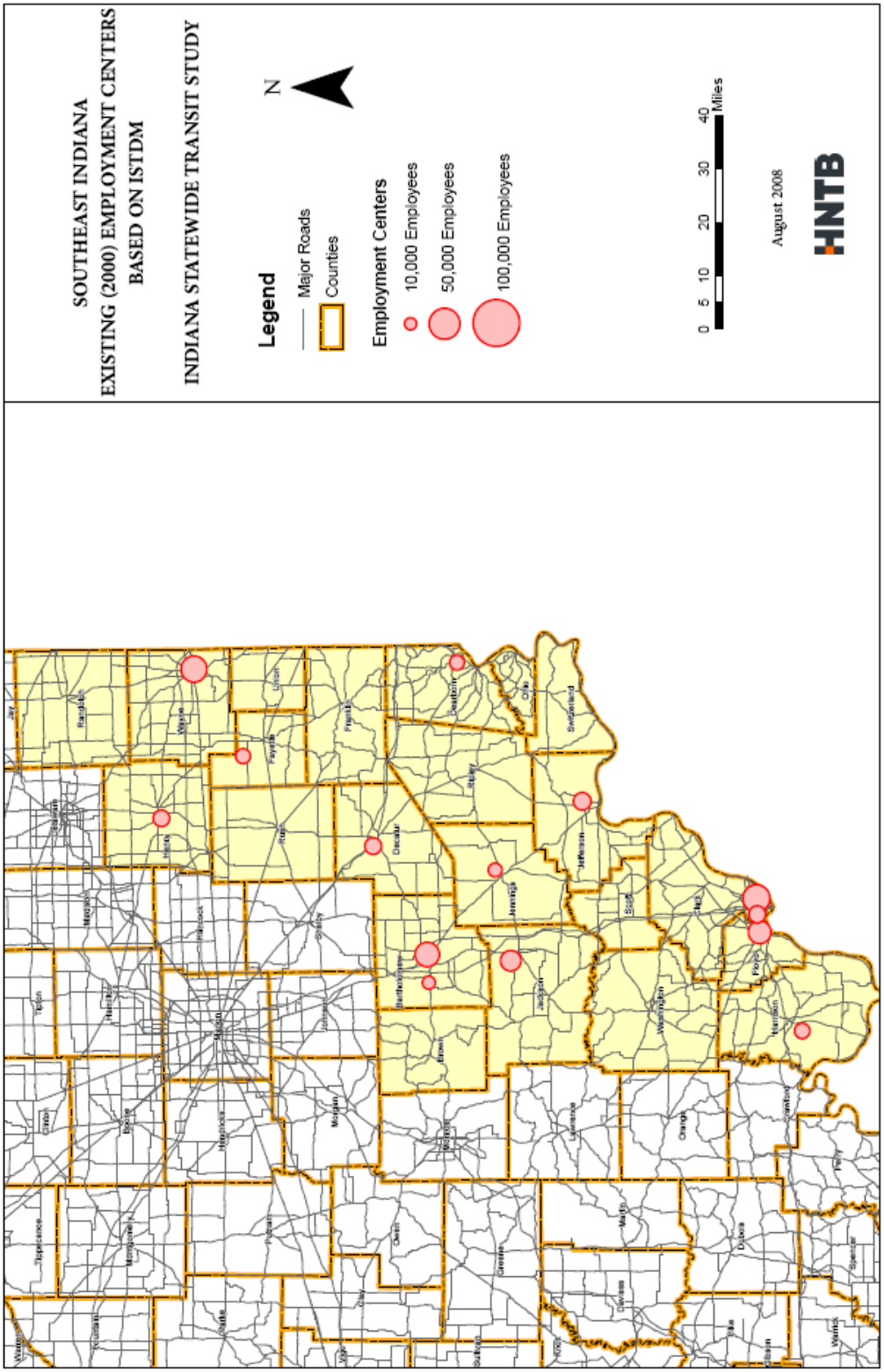


Figure 3 – Congested Corridors in SE Indiana[1]

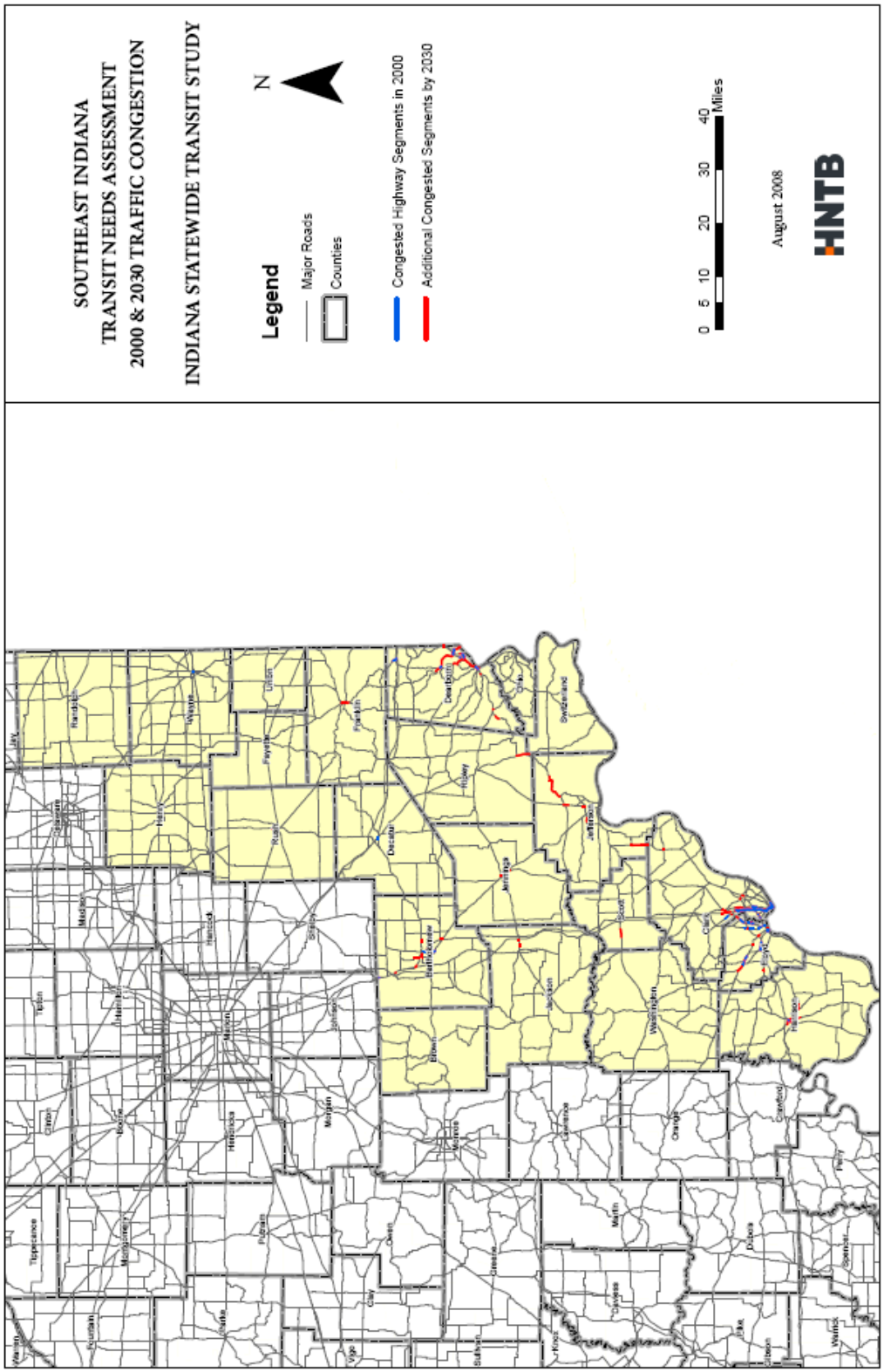
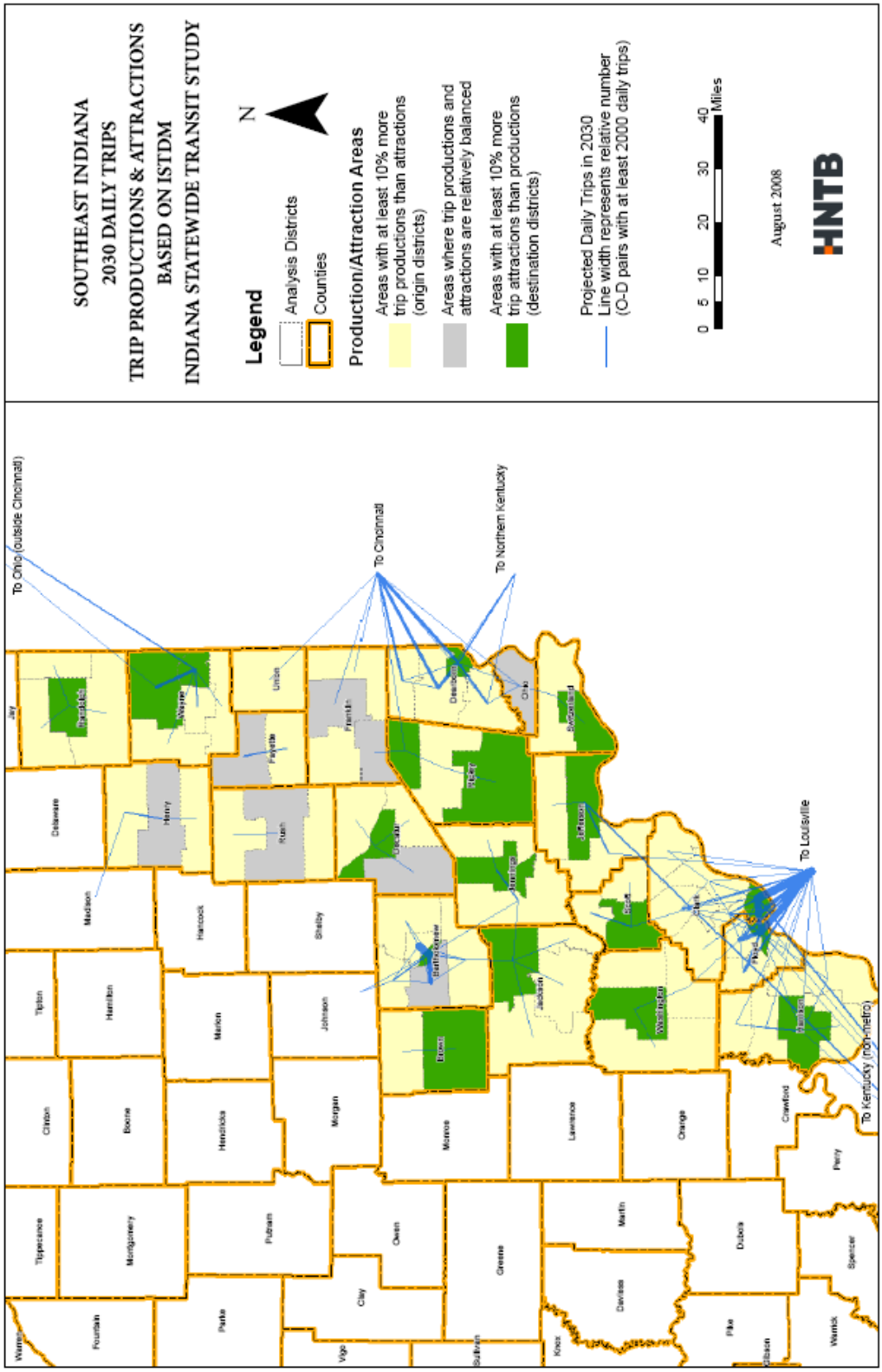


Figure 4 – Travel Patterns in SE Indiana



G.2 Transit Needs Assessment

Two approaches were used to assess transit demand in the Southeast Indiana Region. The first approach was to identify areas in the region where scheduled, fixed-route transit service is likely to be supported by local conditions, such as population and employment density and roadway congestion. This approach helps to identify areas where land use patterns could support higher investment in mass transit infrastructure in order to supplement roadway capacity and provide realistic transportation alternatives for travelers that have a choice of mode. The second approach was to develop quantitative estimates of potential transit ridership for all counties in the region based on theoretical estimates of unmet demand. This second approach will support the establishment of mass transit service and investment goals for the region. A detailed description of the methods used to assess regional transit demand is provided in Appendix B.

In addition to land use information, regional travel demand and traffic congestion information were used to help identify transit-supportive areas. This information was obtained from the Indiana Statewide Travel Demand Model maintained by INDOT.

Figure 3, shows congested highway corridors in the Southeast Indiana Region. Existing congestion is primarily concentrated in the Louisville metropolitan area, with pockets of congestion in Dearborn and Bartholomew counties. By 2030, the number of congested roadways in these areas is projected to increase, and new areas of congestion are projected in the Seymour, North Vernon, Corydon, Scottsburg, and Brookville areas, and along the State Road 62 corridor between Dearborn and Clark counties.

Figure 4 displays projected trip patterns within the Southeast Indiana region for the year 2030. The table below shows projected major trip flows between counties in the region for all modes of transportation in 2030.

2030 Projected Inter-county Trips in Southeast Indiana

Counties	Daily Person-trips between Counties (2030 Projection)
Clark & Floyd	176,000
Clark & Jefferson (Kentucky)	166,000
Floyd & Jefferson (Kentucky)	102,000
Dearborn & Hamilton (Ohio)	82,000
Bartholomew & Johnson	41,000
Floyd & Harrison	31,000
Harrison & Jefferson (Kentucky)	25,000

Quantitative Demand Estimates

Several methods were used to develop quantitative estimates of transit demand in the Southeast Indiana Region. The Mobility Gap method, the Arkansas Public

Transportation Needs Assessment (APTNA) method and the Washington State Department of Transportation (WSDOT) method were used to assess demand for rural areas. The Mobility Gap method estimates the transit trips that would result if all zero-auto households in the region were to take as many trips as two-auto households. The APTNA and WSDOT methods estimated demand for rural transit services based on formulas derived in studies of service in Arkansas and Washington. The Mobility Gap method was also used to estimate transit demand in urbanized areas, as was the Mode Split method. The Mode Split method estimates the number of transit trips that would be taken if transit were to serve 1%, 2% or 3% of the total trips in the region. All of these methods are described in Appendix C.

Recognizing the theoretical nature of areawide transit demand estimates and the influence of specific local conditions on demand, these methods were used to identify a potential range of transit need. The result is a range of demand estimates from low-end estimates of demand for basic service to high-end estimates of demand for high-quality service. This range is best interpreted as an "order of magnitude" demand estimate for transit service in the region. Ultimately, more definitive transit demand estimates must reflect local conditions.

The table summarizes the results of the demand estimation for rural and urban counties in the Southeast Indiana Region in 2007. The number of transit trips provided in the region in 2006, as obtained from the 2006 Indiana Public Transit Annual Report, is also shown for reference[2]. Depending on the method used, demand for transit service in the Southeast Indiana Region was estimated to be between 6,660,000 and 25,687,000 annual one-way trips in 2007. Transit providers in the region collectively served approximately 1,416,000 one-way trips in 2006, which met between 6% and 21% of the estimated regional demand.

Based on the information in Figures 1 through 4 and the table below, it is possible to identify areas with characteristics that generally support fixed-route transit service. In the Southeast Indiana region, the areas most likely to sustain this type of service are southern and central Clark County, Floyd County, central Harrison County (Corydon area), eastern Dearborn County, and the Columbus and Richmond areas.

Estimated Transit Demand for Southeast Indiana Region

Area	Estimated 2007 Population	2006 Annual Transit Trips	2007 Transit Demand (Annual Trips)			
			Mobility Gap Method	APTNA Method	WSDOT Method	
Rural Counties	419,100	335,000	9,958,000	1,416,000	4,968,000	--
			Mobility Gap Method	For 1% Mode Share	For 2% Mode Share	For 3% Mode Share
Louisville Metro	178,100	552,000	4,372,000	2,718,000	5,435,000	8,153,000
Columbus Metro	74,800	198,000	1,430,000	1,016,000	2,032,000	3,048,000
Richmond Metro	68,300	290,000	2,227,000	862,000	1,723,000	2,585,000
Cincinnati Metro	49,800	41,000	925,000	648,000	1,295,000	1,943,000
Urban Total	371,000	1,081,000	8,954,000	5,244,000	10,485,000	15,729,000
Regional Total	**789,100**	**1,416,000**	**Lowest estimate: 6,660,000 (21% of need is met)** **Highest estimate: 25,687,000 (6% of need is met)**			

G.3 Regional Plans & Programs

In the Louisville area, the Transit Authority of River City (TARC) currently provides bus service within the city limits of New Albany, Clarksville, and Jeffersonville, including three express bus routes to downtown Louisville. The 2030 Regional Transportation Plan of the Louisville MPO calls for transit service to be maintained and enhanced in these areas. It also defines "advanced transit" corridors connecting Clarksville and New Albany with Louisville. The MPO plan does not address expansion of fixed-route service to new areas that might support it, such as Sellersburg, Charlestown, or Corydon.

In the City of Columbus, ColumBUS Transit provides four bus routes that operate hourly on weekdays and Saturdays. The buses travel between downtown Columbus and the residential and commercial areas to the north and east. There is no transit service provided to the low-density residential and industrial areas south and west of downtown. The current service area generally corresponds to the fixed-route transit supportive area identified for Columbus in the figures. The Columbus MPO Regional 2035 Transportation Plan outlines several potential improvements to service within the existing coverage area, including relocation of transfer points, extended hours, improved frequency and Sunday service. The plan also identifies potential new service from Columbus to the outlet mall in Edinburgh.

In the City of Richmond, Roseview Transit provides five hourly bus routes that converge on the downtown area and one shuttle route serving the shopping centers along US 40 East. The bus routes serve most areas within the Richmond city limits, roughly corresponding with the transit-supportive area identified in this study. Extending service hours on these existing routes and ensuring access to employment growth areas north of downtown should be a focus for this system in the future.

In Dearborn County, there is not currently any fixed-route transit service. The Southeastern Indiana Regional Planning Commission (SIRPC) provides both demand-response and point-deviation service within the county. The Cincinnati MPO 2030 transportation plan identifies bus service between Lawrenceburg/Aurora and Cincinnati as a future project, as well as the preservation of rail right of way between Lawrenceburg and Cincinnati for future rail transit projects beyond the 2030 planning horizon.

Outside the urban areas, rural demand-response service is currently provided in the cities of New Castle and Seymour; and in Randolph, Wayne, Union, Fayette, Franklin, Decatur, Ripley, Dearborn, Ohio, Switzerland, Jefferson, Scott, Washington, and Harrison counties.

G.4 Potential Transit Implementation

Southeastern Indiana presents a broad mix of transit challenges and issues that are similar to the other regions studied. Similar to the Northwest region, there major portions of the Southeast region that serve as the suburban bedroom communities for metropolitan areas outside the state, Louisville and Cincinnati. Like the Northeast and Southwest regions, there are large rural areas without public transit service and there are two small metropolitan areas with unmet needs similar to those in Evansville, Terre Haute and Elkhart.

Improved express bus connections to Louisville and Cincinnati

Description of Potential Service: Regional plans exist for upgrading services from Indiana counties within the metropolitan regions of Louisville and Cincinnati. These services are affected by traffic congestion on the bridges into Kentucky.

Parallels from Peer Systems:

The experience from other portions of the Chicago region, the New Jersey portion of the Philadelphia region, and the Illinois portion of the St. Louis region can be used to draw some parallels for the types of impacts possible from the expansion of connections across state lines.

- Social/Demographic: The Illinois portion of the St. Louis metropolitan area generally has lower accessibility by auto to the jobs in the region, particularly during peak periods when traffic congestion means that most of the regional job base is not within a 45-minute drive. The MetroLink rail service has improved travel times to jobs in St. Louis, and has been well utilized by low-income households in particular.

- Economic Growth: The transit-served portions of New Jersey in the Philadelphia region and Illinois in the St. Louis region have seen a higher rate of employment growth than the remainder of their respective regions.
- Congestion Mitigation: Traffic congestion in the St. Louis region is most severe where commuters encounter a river crossing, making Illinois residents particularly susceptible to traffic delays. While there are no data on the reduced number of vehicles reflected in the ridership numbers, the MetroLink line has provided a new travel option for those commuting across the State line.

Impacts from improved regional connections to Cincinnati and Louisville:

- Social/Demographic: The extension of service to Indiana would improve connections for low-income populations to the regional employment centers located in across state lines.

Columbus and Richmond bus service expansions

Description of Potential Service: Expansion of the frequency and coverage of the small fixed-route service will meet additional transit needs identified for the region. Currently, Columbus operates four fixed routes, while Richmond operates five.

Parallels from Peer Systems:
Peer systems studied for the Columbus and Richmond areas include Traverse City (MI), Paducah (KY), and Florence (SC).

- Social/Demographic: The Florence area has higher poverty levels than the state of South Carolina as a whole, with levels over 16% in Florence County. Many of these residents live in rural portions of the region. The regional transit agency (PDRTA) has made a deliberate shift away from standard fixed-route services and to more targeted demand-response or other services intended to match workers to jobs. This has resulted in more efficiency and improved ridership.
- Economic Growth: The trolley service in downtown Paducah is specifically designed to connect tourism and entertainment resources in the City, and has been successful in supporting this growing portion of the regional economy.
- Economic Growth: A review of the economic impacts of tourism estimated that visitors to the Traverse City area sustained 807 jobs in transit and ground passenger transportation in Grand Traverse County. Tourism is a major source of economic value in Traverse City.

Impacts from expanded bus service in Columbus and Richmond

- Social/Demographic: Expanded service will help provide seniors and sensitive populations with work, shopping and recreational trips.
- Environmental Quality: Use of the bus system by more "choice" riders will help reduce air pollutant emissions in the region.

Increased Demand Response Service throughout the region's rural areas

Description of Potential Service: The needs assessment for the region showed that there is a considerable amount of demand for rural transportation service that is not being met. The introduction of county-wide demand response service into Henry, Rush,

Brown, Bartholomew Jackson and Jennings Counties above and beyond what the human service agencies are providing, as well as expanded service in the other counties will be instrumental in moving toward meeting demand.

All of the counties in Indiana have some form of agency-sponsored transportation, whether it is for the elderly under the Older American Act, Medicaid transportation for low income or any of the other 60-plus federal programs sponsoring transportation. The agencies administering these programs are often restricted to serving only qualifying clients for eligible trip purposes. The issue for many areas, especially those that do not have public systems, is that there are many individuals that either do not qualify for a specific program or in many cases have need to make a trip that is not eligible under the program rules.

Impacts from increased Demand Response service:

Improvement to rural demand response service provides increased mobility and quality of life for transit dependent populations that do not qualify for human service agency sponsored services. Increased transportation for these populations provides the following benefits.

- Increased access to employment for low-income populations which allows less reliance on other government programs. The Virginia Transit Association finds that provide access for one disabled individual to employment saves $7,000 per individual per year in in-home services.
- More consistent access to medical coverage which improves overall health for the individual, but can also save the county (jurisdiction) money due to reduced emergency rooms visits, usage of emergency services and need for in-home or other specialized medical services sponsored by the county. The Virginia Transit Association finds that providing transportation to elderly individuals helps reduce the reliance of other publicly sponsored services.

Cost of In-Home Services to Elderly (Virginia Transit Association)

Service	Average costs annually	Cost per recipient
Home meals	$3.4 million	$385 per recipient
Home health services	$8.6 million	$959 per recipient
Adult day care	$1.3 million	$3,634 per recipient
Personal care	$74.3 million	$7,434 per recipient
Nursing facility care	$393.3 million	$14,241 per recipient

G.5 Stakeholder/Poll Regional Summary

Stakeholders in Southeast Indiana cited the economic and environmental benefits as the most important aspects of transit. The service in the region is considered to be operated well, with the primary criticism of transit being that the service is not convenient to the user and therefore is not well utilized.

Stakeholders felt that there is demand for more transit options especially for service to and from Louisville and Cincinnati as well as the rural portions. There is interest also in improving demand response service in Floyd and Clark Counties, citing that the service provided by TARC is not sufficient. Other areas in need of service include New Albany, Walesboro, West Hill, Edinburg and Batesville. Stakeholders saw the need for scheduled service from multiple locations to and from Indianapolis, including New Castle and Seymour.

All of those interviewed cited the need for increased funding for transit but were skeptical that the public would agree to increase regional funding through a tax.

The public opinion poll yielded a number of interesting results for the Southeast Region (more information about the poll is included in Section 2 and Appendix J).

- The Southeast Indiana incidence of daily riders (2.7%) was exactly at the statewide average and the percentage of regular riders (riding at least weekly – Statewide Avg. 5%) was slightly higher. 88.1% of those in the West Central region have never tried transit.

Percentage of Regular Transit Users (By Region)

NW	NE	WC	SE	SW	C
2.8%	3.2%	5.2%	5.7%	6.1%	6.9%

- All regions of the State felt that the number one benefit of transit is the transportation cost savings to the user followed by environmental benefits. Southeast Indiana had the second highest percentage of individuals who found the cost savings to the user as the number one benefit and the lowest percentage citing the reduction in traffic as a benefit of transit.
- Statewide there was almost an even split among respondents placing the responsibility on either local (42.3%) or the state (39.2%) levels of government. The Northwest and the Southeast regions were the only regions to favor state responsibility. This may be attributable to frustration working with regional partners from other states. The Indiana portions of Cincinnati and Louisville are probably not a priority for those regions.
- In terms of funding, two-thirds of those responding statewide felt a need to generate more funds for transit and most consider a mix of funding methods is the best approach. About 37% of Hoosiers support the idea of generating additional funds by raising at least one type of tax (Sales tax was the most common at 15.3%). Southeast Indiana had the highest percentage of individuals who do not favor an increase in transit funding (37.2%).
- In terms of transportation priorities most of the State felt that the maintenance of existing roads and highways should be the top priority. Across the board the regions all had improved service for transportation disadvantaged populations, improving bus and then improving rail transportation as the second, third and fourth priorities, respectively. However, Southeast Indiana identified expansion of roads as a higher priority than improving rail transportation.

G.6 Summary

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The tables below illustrate the cost of the increases by type of service. Cost estimates assume that a 100-150% increase in the fixed route systems and 200% increase in rural transportation service will be implemented. Potential funding sources are summarized in Section 5.

Cost Estimate for Southeast Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$2.9	$6.2	$6.0	$120.0	$231.6
Vanpool	n/a	$0.5			$9.0
Urban Bus	$4.7	$20.3	$16.4	$328.0	$693.4
Fixed Guideway	0	0	0		
Total	$7.7	$27.0	$22.4	$448.0	$934.0

In millions 2008 $ - no escalation.

Cost Breakdown

Northwest Indiana	Annual	One Time Expenditures			Annual	Annual	Annual
	Existing O&M	New Rolling Stock	Other Capital Expenditures	Major Investments	Capital Support	Replacement Rolling Stock	Year 30 O&M
Rural Service	$3.1	$15.6	$8.2	-	$1.5	$5.3	$13.8
Urban Bus	$44.0	$137.8	$78.3	-	$20.5	$17.2	$143.9
Vanpool	-	-	-	-	-	-	$1.5
Rail	-	-	-	$1,742.0	$12.0	$3.5	$13.1

Assumptions: Other Capital includes maintenance and support facilities for expanded fleets. Capital Support includes maintenance of facilities, rehab vehicles, technology support, etc. Replacement based on FTA life-cycle standards 25 yrs. for railcar, 12 yrs. for large buses, 7 yrs. for small/med buses, 5 yrs. for smaller vehicles.

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[1] This analysis used an ISTDM highway network dated May 9, 2005, and the ISTDM model script developed for TransCAD 4.8. The model runs were based on the 2000 base year and 2030 Long Range Plan highway networks in the ISTDM. Congestion was defined using the POST_ALT procedure in the ISTDM, identifying all facilities with a Level of Service E or F.

[2] A breakdown of trips by county as provided by multi-county transit providers was estimated based on relative county populations, as this information is not available from the report. The 2006 ridership does not reflect private Section 5310 service providers that do not provide ridership data to the state.

Appendix H
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Appendix H
Southwest Indiana

The Southwest region is located along the Kentucky and Illinois borders, and incorporates some of the least-populated areas of the State. The distinction of rural and urban counties in the Southwest Indiana region is as follows:

Rural Counties: ***Crawford, Daviess, Dubois, Gibson, Greene, Knox, Lawrence, Martin, Orange, Perry, Pike, Posey, Spencer, and Sullivan***

Urban Counties: ***Evansville Metropolitan Area (Vanderburgh and Warrick)***

H.1 Economic Trends

Population

The region contains only one major population center, the Evansville metro area which extends across the state border into Kentucky. This area has lagged behind state averages for population growth, with relatively little overall growth since 2000. This is despite a growing job market and high growth in per capita income, as shown below.

Major Cities or Towns (>30,000 population)

	2000 Pop.	2007 Pop.
Evansville	121,294	116,253

Population Changes, 1990 - 2010

	Regional Population	% of State	State Population
1990	553,929	10.0%	5,544,156
2000	586,057	9.6%	6,081,939
2007 (estimate)	592,133	9.3%	6,345,289
2010 (projection)	597,083	9.3%	6,417,198
% change (1990 - 2000)	5.8%		9.7%
% change (2000 - 2010)	1.9%		5.5%

Income & employment

This region likewise contains the smallest labor force in the State. The unemployment rate is at the State average, while per capita income in this region has had the highest growth of any over the past 10 years.

Labor Force Data, 2006

Resident Labor Force	305,537
Unemployment Rate	4.9%
Per Capita Personal Income	$31,918
10-year adjusted change	18.4%

The Southwest region has a proportion of manufacturing employment that is in line with State averages, but it is lower than other areas outside the Central region. The service sector here is stronger than even the areas within the northern portions of the State.

Figure 2 shows the general location of major employment areas in the region, based on the year 2000 employment data available in the ISTDM.

Total Employment

		% of Region
Total Covered Employment - BLS (2006)	262,659	
Manufacturing	54,506	*20.8%*
Professional/Technical Services	7,368	*2.8%*
10-Year % Change	4.3%	

Residential Density & Development

Land Area (sq mi)	6,488
Population Density (2007)	91
Residential Building Permits (2007)	1,554
Residential Building Permits (2006)	1,714

Land use & development

This is the least densely populated region of the State, and overall features the lowest level of new residential development in the State. The housing market has been relatively unchanged by the decline in housing this far. Figure 1 shows housing unit densities across the Southwest Indiana Region.

Sub-Regional Trends

- While the city itself has experienced losses in population and employment, the Evansville metro area has experienced greater economic fortunes than the rest of the State, including a lower level of manufacturing-sector losses—a 7% manufacturing job loss since 2000, compared to 14.7% statewide. (Indiana Business Review, Outlook 2008)

H.2 Transit Needs Assessment

Two approaches were used to assess transit demand in the Southwest Indiana Region. The first approach was to identify areas in the region where scheduled, fixed-route transit service is likely to be supported by local conditions, such as population and employment density and roadway congestion. This approach helps to identify areas where land use patterns could support higher investment in mass transit infrastructure in order to supplement roadway capacity and provide realistic transportation alternatives for travelers that have a choice of mode. The second approach was to develop quantitative estimates of potential transit ridership for all counties in the region based on theoretical estimates of unmet demand. This second approach will support the establishment of mass transit service and investment goals for the region. A detailed description of the methods used to assess regional transit demand is provided in Appendix B.

Figure 1 – Residential Density in SW Indiana

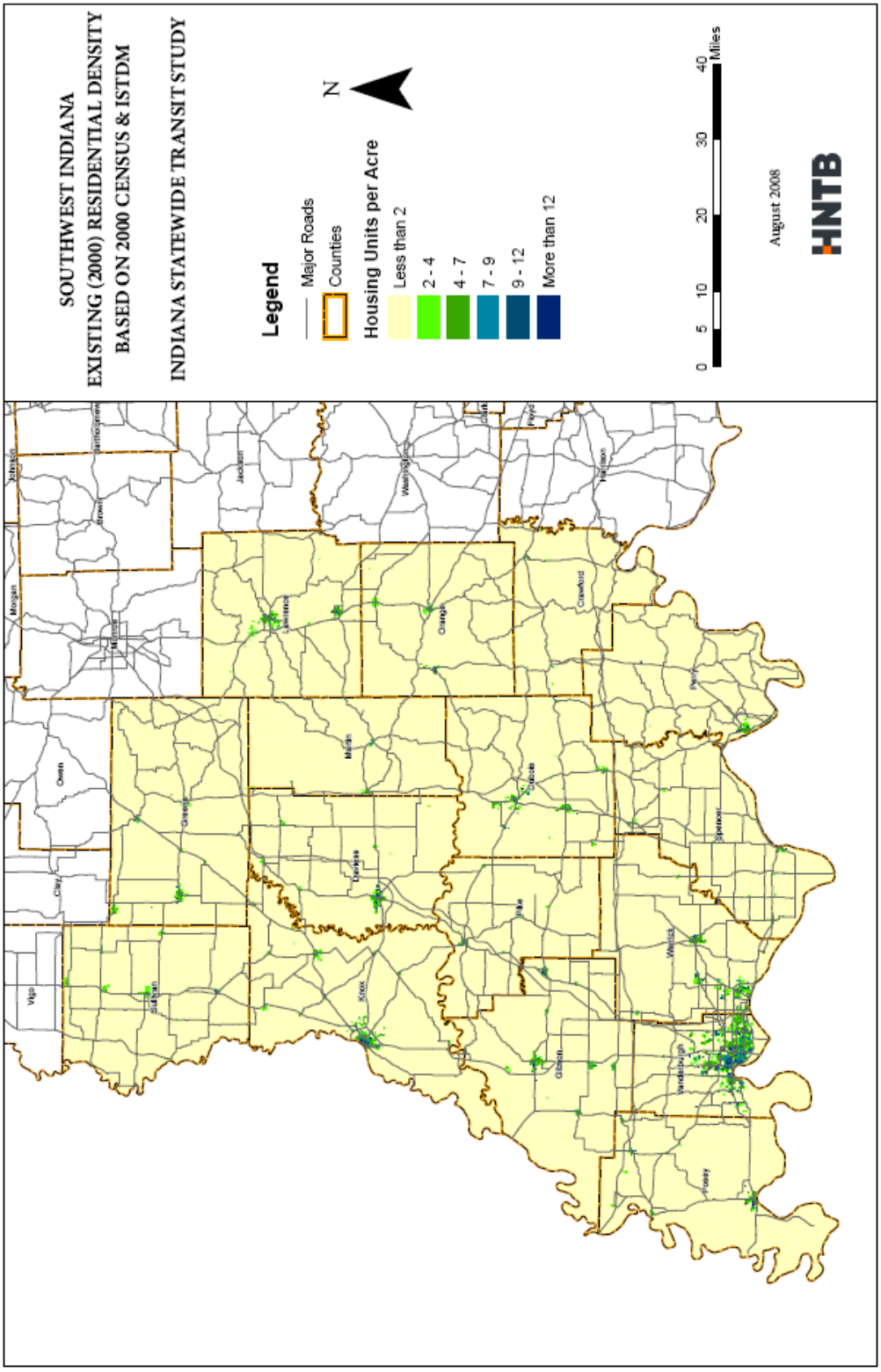


Figure 2 – Employment Centers in NE Indiana

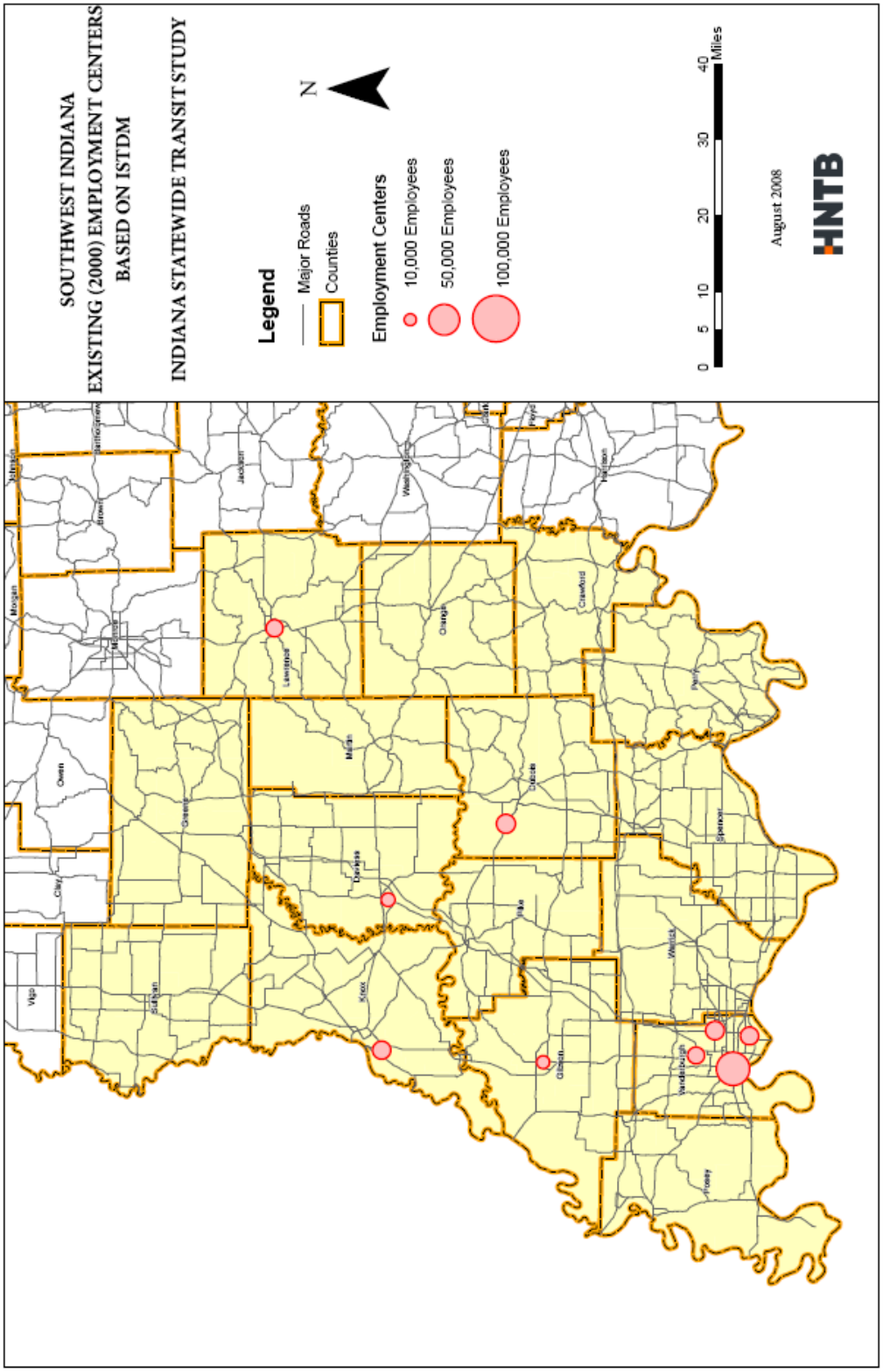


Figure 3 – Congested Corridors in SE Indiana[1]

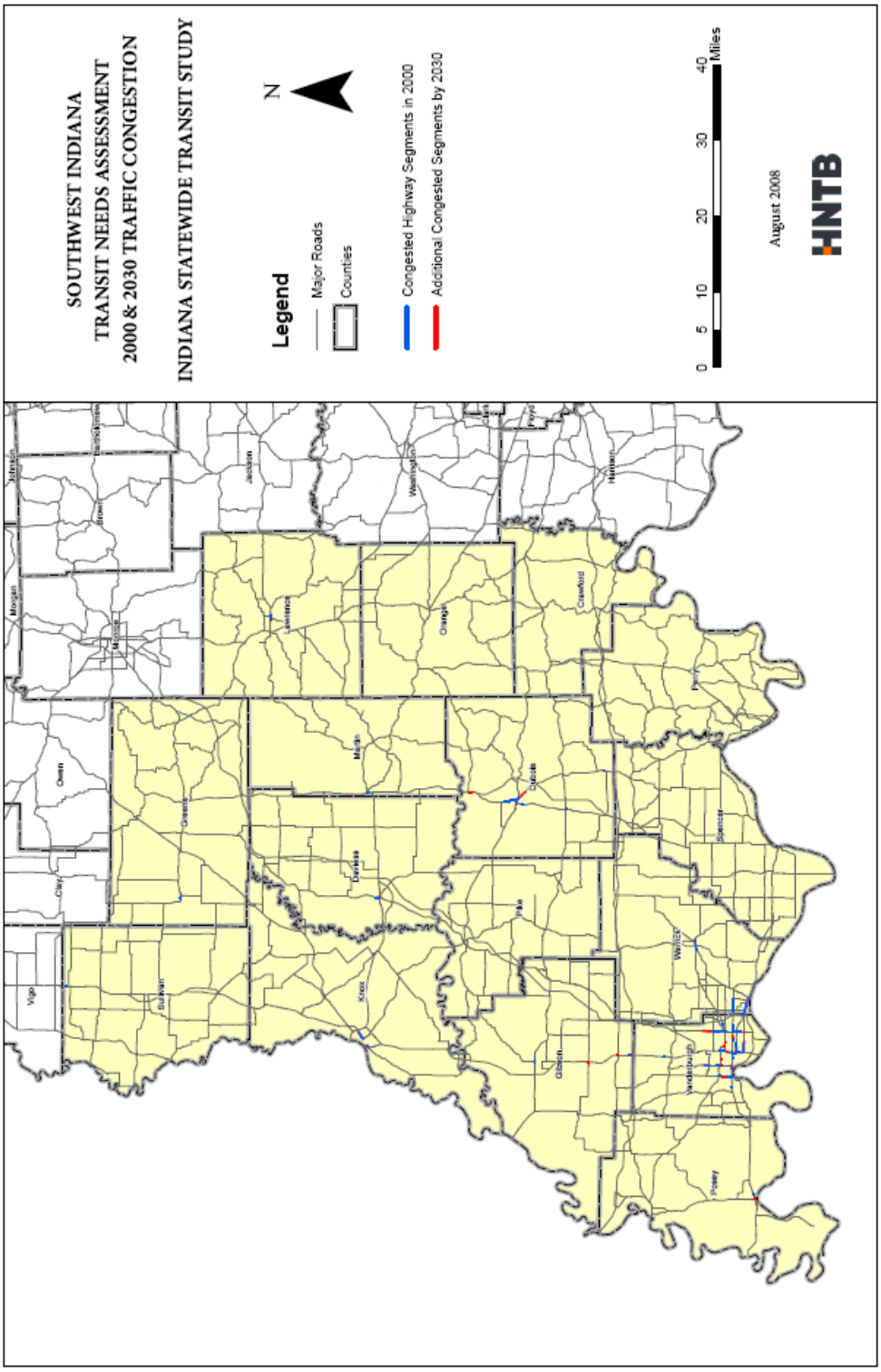
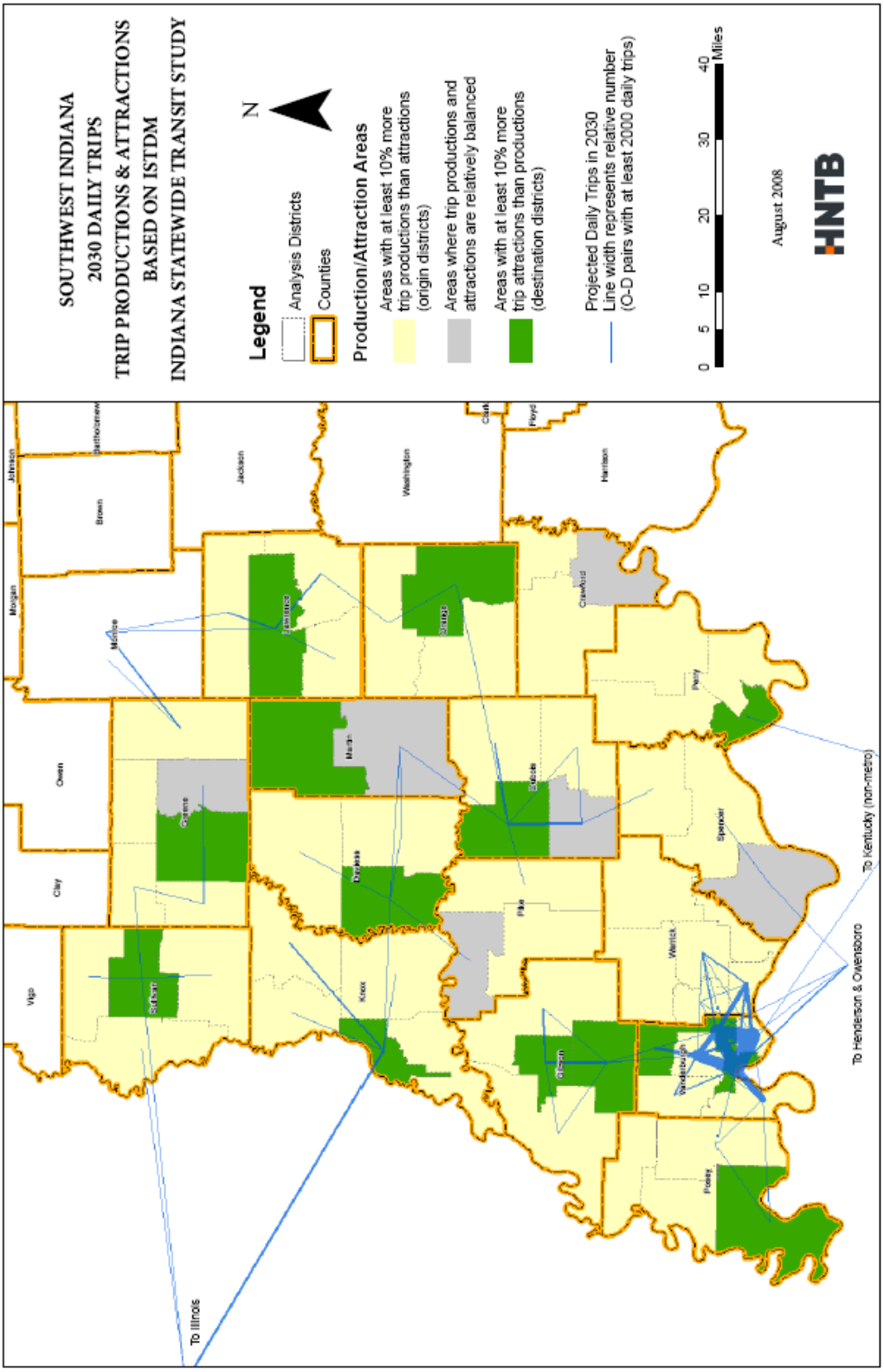


Figure 4 – Travel Patterns in SW Indiana



In addition to land use information, regional travel demand and traffic congestion information were used to help identify transit-supportive areas. This information was obtained from the Indiana Statewide Travel Demand Model maintained by INDOT.

Figure 3, shows congested highway corridors in the Southwest Indiana Region. Existing congestion is primarily concentrated in the Evansville area (Vanderburgh and southwestern Warrick counties), with pockets of congestion in smaller urban areas such as Jasper and Vincennes. By 2030, the number of congested roadways in these areas is projected to increase.

Figure 4 displays projected trip patterns within the Southwest Indiana region for the year 2030. Table 1 shows projected major trip flows between counties in the region for all modes of transportation in 2030.

2030 Projected Inter-county Trips in Southwest Indiana

Counties	Daily Person-trips between Counties (2030 Projection)
Vanderburgh & Warrick	166,000
Posey & Vanderburgh	44,000
Lawrence & Monroe	27,000
Gibson & Vanderburgh	25,000

Quantitative Demand Estimates

Several methods were used to develop quantitative estimates of transit demand in the Southwest Indiana Region. The Mobility Gap method, the Arkansas Public Transportation Needs Assessment (APTNA) method and the Washington State Department of Transportation (WSDOT) method were used to assess demand for rural areas. The Mobility Gap method estimates the transit trips that would result if all zero-auto households in the region were to take as many trips as two-auto households. The APTNA and WSDOT methods estimated demand for rural transit services based on formulas derived in studies of service in Arkansas and Washington. The Mobility Gap method was also used to estimate transit demand in urbanized areas, as was the Mode Split method. The Mode Split method estimates the number of transit trips that would be taken if transit were to serve 1%, 2% or 3% of the total trips in the region. All of these methods are described in Appendix C.

Recognizing the theoretical nature of area-wide transit demand estimates and the influence of specific local conditions on demand, these methods were used to identify a potential range of transit need. The result is a range of demand estimates from low-end estimates of demand for basic service to high-end estimates of demand for high-quality service. This range is best interpreted as an "order of magnitude" demand estimate for transit service in the region. Ultimately, more definitive transit demand estimates must reflect local conditions.

The table below summarizes the results of the demand estimation for rural and urban counties in the Southwest Indiana Region in 2007. The number of transit trips provided in the region in 2006, as obtained from the 2006 Indiana Public

Transit Annual Report, is also shown for reference[2]. Depending on the method used, demand for transit service in the Southwest Indiana Region was estimated to be between 4,538,000 and 20,231,000 annual one-way trips in 2007. Transit providers in the region served approximately 1,973,000 one-way trips in 2006, which met between 10% and 43% of the regional demand.

Estimated Transit Demand for Southwest Indiana Region

Area	Estimated 2007 Population	2006 Annual Transit Trips	2007 Transit Demand (Annual Trips)			
			Mobility Gap Method	APTNA Method	WSDOT Method	
Rural Counties	360,600	300,000	10,554,000	1,312,000	4,362,000	--
			Mobility Gap Method	For 1% Mode Share	For 2% Mode Share	For 3% Mode Share
Evansville Metro	231,500	1,673,000	7,698,000	3,226,000	6,451,000	9,677,000
Regional Total	**592,100**	**1,973,000**	**Lowest estimate: 4,538,000 (43% of need is met)** **Highest estimate: 20,231,000 (10% of need is met)**			

Based on the information in Figures 1 through 4 and the estimated transit demand, it is possible to identify areas with characteristics that generally support fixed-route transit service. In Southwest Indiana, the Evansville area (Vanderburgh County and southwestern Warrick County) is the most likely area to support fixed-route transit service.

H.3 Regional Plans & Programs

Currently, the Metropolitan Evansville Transit System (METS) provides bus service within the Evansville city limits and along the State Road 62 corridor west of the city (to the University of Southern Indiana). Henderson Area Rapid Transit (HART) provides service within the City of Henderson, across the Ohio River in Kentucky.

The Evansville MPO 2035 Regional Transportation Plan identifies a need to extend METS service in the State Road 62 corridor west of Evansville, the I-164 corridor northeast of Evansville, and the US 41 corridor north of Evansville (including service to the airport). The plan also calls for the establishment of express service connecting Evansville to Newburgh and Henderson. Improvements to the hours and frequency of service are also recommended by the MPO. The service improvements and extensions proposed in the Regional Transportation Plan are generally consistent with the areas identified in this study to be supportive of fixed-route transit service.

Outside the Evansville urban area, rural demand-response transit service is currently provided in the cities of Bedford, Huntingburg, Mitchell, and Washington; and in Knox, Orange, Lawrence, Crawford, Daviess, Greene, Martin, Pike, and Sullivan counties.

H.4 Potential Transit Implementation

Rural transportation needs are more critical in the Southwest region of Indiana than elsewhere in the State. Seven of the 16 counties in the region do not have public systems and the region is the most remote in terms of accessing services in other cities besides Evansville. In addition to expanding service within Evansville, the region should emphasize increased rural services in those areas with a system and the introduction of new service in those that do not.

Expansion of local bus service in Evansville coverage area

Description of Potential Service: Existing bus service in the Evansville region is provided by Metropolitan Evansville Transit System (METS), which has plans to increase the level of service on existing routes as well as provide new connections to growing portions of the region. One key bus connection under consideration is a new service to the airport.

Parallels from Peer Systems:

Peer systems analyzed for the Evansville area include the Quad Cities (IL/IA), Albuquerque (NM), Charleston (SC), and Little Rock(AR).

- Social/Demographic: A 2003 ridership survey indicated that 81% of CARTA customers (Charleston) indicated that they used the bus service because they did not have access to a car or could not drive. Recent service cuts likely mean that this proportion is even higher.
- Social/Demographic: A profile of the passengers on Little Rock's CATA system shows that 80% use transit because they cannot drive, and that relatively the same proportion comes from households with one or fewer cars. In addition, 56% earn less than $20,000 per year, even though 60% are employed full time.

Impacts from expanded bus service in Evansville

- Social/Demographic: Expanded service will help provide seniors and sensitive populations with work, shopping and recreational trips.
- Social/Demographic: Airports are generally regional hubs for employment, and access to the airport for flights will also provide access to the airport for employment for numerous commuters.
- Economic Growth: Linking the airport to key destinations such as the Central Business District will improve the environment for business development.
- Environmental Quality: Use of the bus system by more "choice" riders will help reduce air pollutant emissions in the region.

Increased Demand Response Service throughout the region's rural areas

Description of Potential Service: The needs assessment for the region showed that there is a considerable amount of demand for rural transportation service that is not being met. The introduction of county-wide demand response service into Posey, Gibson,

Dubois, Crawford, Perry, Spencer and Warrick Counties (above and beyond what the human service agencies are providing), as well as expanded service in the other counties will be instrumental in moving toward meeting demand.

All of the counties in Indiana have some form of agency-sponsored transportation, whether it is for the elderly under the Older American Act, Medicaid transportation for low income or any of the other 60-plus federal programs sponsoring transportation. The agencies administering these programs are often restricted to serving only qualifying clients for eligible trip purposes. The issue for many areas, especially those that do not have public systems, is that there are many individuals that either do not qualify for a specific program or in many cases have need to make a trip that is not eligible under the program rules.

Impacts from increased Demand Response service:

Improvement to rural demand response service provides increased mobility and quality of life for transit dependent populations that do not qualify for human service agency sponsored services. Increased transportation for these populations provides the following benefits.

- Increased access to employment for low-income populations which allows less reliance on other government programs. The Virginia Transit Association finds that providing access for one disabled individual to employment saves $7,000 per individual per year in in-home services.
- More consistent access to medical coverage which improves overall health for the individual, but can also save the county (jurisdiction) money due to reduced emergency rooms visits, usage of emergency services and need for in-home or other specialized medical services sponsored by the county. The Virginia Transit Association finds that providing transportation to elderly individuals helps reduce the reliance of other publicly sponsored services.

Cost of In-Home Services to Elderly (Virginia Transit Association)

Service	Average costs annually	Cost per recipient
Home meals	$3.4 million	$385 per recipient
Home health services	$8.6 million	$959 per recipient
Adult day care	$1.3 million	$3,634 per recipient
Personal care	$74.3 million	$7,434 per recipient
Nursing facility care	$393.3 million	$14,241 per recipient

H.5 Stakeholder/Poll Regional Summary

Stakeholders in Southwest Indiana cited the economic and environmental benefits as the most important aspects of transit. The service in the region, especially in Evansville, is considered to be operated well, with the primary criticism of transit being that the service is not convenient to the user.

Stakeholders felt that the public did not have an opinion on transit simply because it is not widely available and the region's focus should be on workforce transportation by connecting remote areas to employment centers.

Most of those interviewed cited the rural portions of the region as the area with the most need for new service, including the southern edge of the region.

There is interest also in improving service in Perry County, Warrick County, Dubois County and Gibson County. Stakeholders saw need to provide commuter service to the Toyota Plant and for regularly scheduled service between Evansville and Indianapolis.

All of those interviewed cited the need for increased funding for transit but were skeptical that the public would agree to increase regional funding through a tax. Many of the stakeholders felt that establishing tolls on new and existing roadways could be a viable funding source for transit in the region.

The public opinion poll yielded a number of interesting results for the Southwest region (more information about the poll is included in Section 2 and Appendix XX).

- Southwest Indiana was very close to the state averages in terms of incidence of daily riders (2.7%) and the percentage of regular riders (riding at least weekly – Statewide Avg. 5%). 88.1% of those in the West Central region have never tried transit.

Percentage of Regular Transit Users (By Region)

NW	NE	WC	SE	SW	C
2.8%	3.2%	5.2%	5.7%	6.1%	6.9%

- All regions of the State felt that the number one benefit of transit is the transportation cost savings to the user followed by environmental benefits. Southwest Indiana had the highest percentage of respondents citing the mobility benefits of transit as the third most important impact of transit.
- In terms of the drawbacks of transit, over half of the residents in Southwest Indiana claimed that transit does not offer enough flexibility and convenience to the user to be a viable transportation alternative.
- Southwest Indiana established the highest threshold for gas prices ($3.55, State Average $3.22) before choosing to use transit over an automobile for their transportation needs.
- Statewide there was almost an even split among respondents placing the responsibility on either local (42.3%) or the state (39.2%) levels of government.

However, the Southwest region had the largest split between local and state control over transit. Over half (51.1%) of the respondents from Southwest Indiana think that transit should be the responsibility of local/regional jurisdictions.

- In terms of funding, two-thirds of those responding statewide felt a need to generate more funds for transit and most consider a mix of funding methods is the best approach. About 37% of Hoosiers support the idea of generating additional funds by raising at least one type of tax (Sales tax was the most common at 15.3%). The responses in Southwest Indiana were very similar to the overall State; however, it had the lowest percentage of individuals amenable to an increase in some type of tax.
- In terms of transportation priorities, most of the State felt that the maintenance of existing roads and highways should be the top priority. Across the board the regions all had improved service for transportation disadvantaged populations, improving bus and then improving rail transportation as the second, third and fourth priorities, respectively. However, Southwest Indiana identified expansion of roads as a higher priority than improving rail transportation.

H.6 Summary

Southwest Indiana has the lowest propensity for transit among the regions of the State and, according to the poll; the highest percentage of people who felt that road expansion should have a higher priority than transit expansion. Still, there localized opportunities for transit improvements to attract new riders and the introduction of new rural transportation into the several counties that currently are not served beyond human service transportation should be a top priority. It is possible to design the rural service to accommodate intercity travel which is a need cited by those in the region.

Based on the demand and issues with the current service, the region will need to sustain a significant increase in the level of transit service. The tables illustrate the cost of the increases by type of service. Cost estimates assume that a 100-200% in the Evansville fixed route systems and 200% increase in rural transportation service will be implemented. Potential funding sources are summarized in Section 5.

Cost Estimate for Southwest Indiana Transit Investments

Service Type	Current Annual O&M Cost	Annual O&M Full Expansion	Annualized Capital Cost	Total Capital Cost	Estimated Total Outlay 2010-2040
Rural	$1.2	$12.0	$12.8	$256.0	$472.0
Vanpool		$1.0	0		$18.0
Urban Bus	$7.9	$16.0	$13.5	$270.0	$558.0
Fixed Guideway		0	0		0
Total	$9.1	$29.0	$26.3	$526.0	$1048.0

In millions 2008 $ - no escalation.

Cost Breakdown

Northwest Indiana	Annual	One Time Expenditures			Annual	Annual	Annual
	Existing O&M	New Rolling Stock	Other Capital Expenditures	Major Investments	Capital Support	Replacement Rolling Stock	Year 30 O&M
Rural Service	$2.9	$13.2	$9.6	-	$2.4	$6.2	$12.0
Urban Bus	$4.7	$28.7	$15.2	-	$5.4	$3.3	$16.0
Vanpool	-	-	-	-	-	-	$0.5
Rail	-	-	-	-	-	-	-

Assumptions: Other Capital includes maintenance and support facilities for expanded fleets.
Capital Support includes maintenance of facilities, rehab vehicles, technology support, etc.
Replacement based on FTA life-cycle standards 25 yrs. for railcar, 12 yrs. for large buses, 7 yrs. for small/med buses, 5 yrs. for vans/smaller vehicles.

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[1] This analysis used an ISTDM highway network dated May 9, 2005, and the ISTDM model script developed for TransCAD 4.8. The model runs were based on the 2000 base year and 2030 Long Range Plan highway networks in the ISTDM. Congestion was defined using the POST_ALT procedure in the ISTDM, identifying all facilities with a Level of Service E or F.

[2] A breakdown of trips by county as provided by multi-county transit providers was estimated based on relative county populations, as this information is not available from the report. The 2006 ridership does not reflect private Section 5310 service providers that do not provide ridership data to the state.

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Appendix I
Plans and Program

I.1 Statewide Plans and Programs

Indiana Statewide Needs Assessment for Transit, February 1999

This study was commissioned by the Indiana Department of Transportation in order to assess the demand for public transit in Indiana, estimate the costs to serve this demand, and identify issues associated with the administration of federal transit funding programs in the state. The study included a mailed survey and in-person interviews with many transit service providers.

The study established target ridership values for existing transit systems and estimated the capital and operating costs required to meet those targets. The study also estimated the costs required to extend transit service to counties that currently are not served. The study found that to maintain existing bus service, expand bus systems to meet demand targets, and extend coverage to unserved areas would require a 250 percent increase in current transit funding levels.

The study concluded with some recommendations regarding the administration of transit funding programs in Indiana. The study recommended establishment of transit policy goals for Indiana. It was recommended that transit systems be required to develop business plans describing how they will generate revenues and meet unmet demand. The study also recommended the direction of more technical assistance to service and planning issues rather than administrative issues.

Indiana Public Transit Annual Report, 2006

This annual report provides descriptions, operating statistics and financial information for each of the 59 urban and rural public transit agencies in Indiana. The systems are divided into four categories—large fixed route, small fixed route, urban demand-responsive and rural demand-responsive. The report includes peer group comparisons of operating and financial characteristics among systems within the same category. The report also includes a description of the various federal funding programs for transit that are administered by the Indiana Department of Transportation. A list of agencies that provide transit service for elderly and disabled persons under the Section 5310 Program is provided.

Indiana Department of Transportation 2030 Long Range Transportation Plan, June 2007

This plan identifies the long range issues and needs of the state's transportation system. Although it focuses primarily on highways, it does include some information on transit issues and needs. The plan discusses passenger and freight rail and general public transit separately.

Indiana Statewide Public Transit/Human Service Coordination Plans, November 2007 INDOT Districts (I, II, III, IV, V, VI)

These documents evaluate existing transportation providers and the unmet transportation needs/duplications in human service agency and public transportation service for the rural areas within the State. Preparation of this Inventory and Needs assessment included demographic, economic, and travel data analysis and a survey of and interview with providers and key stakeholders. The plan identifies over 165 government entities, agencies, and transportation providers by region and provides extensive information on the nine participating in the plan development process. Additional information was gathered through review of the 2006 INDOT Annual Report, stakeholder meeting input, and follow-up telephone interviews and emails.

Other Statewide Plans and Programs reviewed included:

- Indiana Statewide Rail Plan, 2002
- Indiana Rail Corridor Preservation Study, February 2003
- Midwest Regional Rail System Executive Report, September 2004
- Indiana State Transportation Improvement Program (INSTIP) Transit Element for FY 2008-2011, May 2007
- I-69 Tier 2 Environmental Studies, Evansville to Indianapolis, Underway

I.2 Central Indiana Plans and Programs

Indianapolis 2030 Regional Transportation Plan, Amended January 2007

The Indianapolis Regional Transportation Plan was last updated in 2005, and the latest amendment was adopted in 2007. The plan covers the Indianapolis Metropolitan Planning Area, which includes Marion County and portions of Boone, Hamilton, Hendricks, Hancock, Johnson, Morgan and Shelby counties. The plan identifies transportation capital needs based on existing deficiencies and forecast 2030 travel conditions. The plan forecasts significant travel demand growth northeast of Indianapolis. As a result, it identifies the need for added travel lanes on I-69 from I-465 to SR 38, Pendleton Pike from I-465 to SR 38 and Allisonville Road from Kessler Boulevard to 146th Street.

Indianapolis Metropolitan Planning Organization Coordinated Public Transit Human Services Transportation Plan, February 2007/Madison County, 2007/ Bloomington/Monroe County, June 2007/ Delaware-Muncie County, 2007

These documents evaluate existing transportation providers and the unmet transportation needs/duplications in human service agency and public transportation service for each area within the State. Additional information was gathered through review of the 2006 INDOT Annual Report, stakeholder meeting input, and follow-up telephone interviews and emails.

Rebuilding Public Transportation in Indianapolis – Indianapolis Transit Task Force Final Report, August 2004

The Indianapolis Task Force was convened in March 2004 to find solutions to the problems and issues that IndyGo had been facing. This document presents the results and recommendations from the Task Force's initial phase. Among other changes presented in the report were a dedicated source of additional local funding county-wide coverage on a minimum of 15-30 minute headways, establishing IndyGo as the mobility manager for public transit, and development of a timeline of when the various service strategy options will be examined. The next phase of the project will identify funding strategies, create advocacy initiatives, marketing and public relations to improve the image of public transit, garner more community involvement, and prioritize operational characteristics of the new model for public transportation in Indianapolis.

This study was performed as part of the Directions Regional Rapid Transit Study in Indianapolis. The objective of the study was to evaluate the existing operation of IndyGo transit service and provide recommendations for improved operation over the next 20 years. The recommended service plan was intended to serve as the base alternative for comparison of other Directions alternatives. Requirements and recommendations were developed for three time horizons—near term (1-3 years), short-range (4-9 years) and long-range (10-15 years).

Madison County Council of Governments 2030 Transportation Plan, Amended February 2007

The 2030 Transportation Plan identifies major roadway capital projects anticipated through 2030. These projects include added travel lanes on I-69 from SR 38 to SR 32. They also include added travel lanes projects on MLK/Pendleton Avenue and on Raible Avenue, both in the vicinity of the existing CSX rail line southwest of downtown Anderson.

Bloomington/Monroe County Metropolitan Planning Organization 2030 Long Range Transportation Plan, Amended June 2007

This plan identifies future transportation needs and recommends long-term improvement projects for all of Monroe County. The plan considers roadway, transit, bicycle and pedestrian facilities. Development of the plan included extensive public input as well as analysis of future traffic conditions using the MPO's travel demand model. The following projects (recommended in the plan) could have an impact on potential commuter rail alignment or design through Monroe County and Bloomington:

2005-2035 Delaware-Muncie Transportation Plan, Amended 2007

This plan provides long-range guidance for transportation system development in Muncie and surrounding Delaware County. The plan identifies future transportation needs and recommends long-term improvement projects. The plan considers roadway, transit, bicycle and pedestrian needs. The plan mentions a current railroad project to establish a quiet zone through downtown Muncie. It also mentions the

possibility of future rail relocation, although it is not clear whether any studies have been conducted. None of the road projects identified in the plan are considered to have a significant impact on potential commuter rail routes.

Other West Central Plans and Programs reviewed included:

- Northeast Quadrant Transit Alternatives Feasibility Study, 1986
- Indianapolis Comprehensive Rail Study, 1995
- Regional Mass Transit Service Plan for Central Indiana, 1999
- Indianapolis Transportation and Land Use Vision Plan, 1999
- Northeast Corridor Draft EIS (ConNECTions), 2002
- IndyGo Comprehensive Operations Analysis, June 2005
- Bloomington Public Transportation Corporation (BPTC) Fixed Route Operational Analysis, December 2007
- Downtown Indianapolis Transit Center Feasibility Study Categorical Exclusion, January 2007
- Rapid Transit Study to Improve Regional Mobility (Directions), Underway
- Madison County Council of Governments Intermodal Study, 1999
- CATS Vehicle Procurement Report April 2007

I.3 Northwest Indiana Plans and Programs

Regional Bus Authority Strategic and Operations Plan February 2006 (NIRPC)

This Strategic and Operations Plan for the Regional Bus Authority in Northwest Indiana addresses the three fixed route bus systems in northern Lake County and five demand-response services operating in portions of Lake and Porter Counties. Initiated by the NIRPC, the MPO for the region, the plan identifies a market for transit services and defines the type and level of service to be provided, recommends management options of how and by whom the service would be delivered, estimates the funds needed and proposes potential funding sources. Major improvements to the quality and quantity of services are required on both the fixed-route and demand-responsive bus services. The plan observed significant unmet demand in the NW Indiana region that would require an additional 2.3 million trips annually. Additionally, it found that simple consolidation will not address efficiency needs as variations in urban and rural transit patterns and community needs require different transit solutions.

Northwestern Indiana Regional Planning Commission (NIRPC) 2030 Regional Transportation Plan 2007 (2008 Compliance Amendment)

This plan establishes a guiding vision for transportation in Lake, La Porte, and Porter counties. It identifies future transportation needs and recommends long-term improvement projects for the region. The Northwestern Indiana's transit system includes the Northern Indiana Commuter Transportation District's South Shore Line as well as a group of fixed route and demand-responsive bus systems. The plan

identifies needs to be for bus service operations including improved and increased transit services for employment access, more frequent bus service, expanded hours of operations, better consumer marketing and service information and increased coordination among existing transit services represent. The plan discusses the Federal funding process and proposes potential new revenue sources including local option retail and gasoline retail sales tax. It advocates creation of a Regional Bus Authority (RBA) to develop and administer a region-wide, sustaining source of local revenue for transit service.

Indiana Statewide Public Transit/Human Service Coordination Plan for Newtown, Jasper, Pulaski, and Starke Counties: First Technical Memorandum: Inventory and Needs Assessment, November 2007/Michiana Area Council of Governments, June 2007/ LaPorte County Underway

These documents evaluate existing transportation providers and the unmet transportation needs/duplications in human service agency and public transportation service for each area within the State. Additional information was gathered through review of the 2006 INDOT Annual Report, stakeholder meeting input, and follow-up telephone interviews and emails.

NICTD West Lake Commuter Corridor Study (Underway) – referenced in NIRPC Connections 2030

Initiated in July 2005 by the Northern Indiana Commuter Transportation District (NICTD), this study furthers work dating back to 1988 with the NIRPC completion of the West Lake County Commuter Study, which recommended the establishment of a commuter rail line from Chicago through Hammond and down the western part of Lake County, eventually as far as Lowell. A major five mile stretch of this proposed rail line was acquired in 1996 and by 2000 a Major Investment Study for this corridor was completed. Current study efforts include development of a travel demand for the used in Alternative Analysis. Model runs revealed demographic data shortcomings and a study of possible revisions to the demographic projections is underway. The ongoing process includes actions required to seek FTA funding.

I.4 Northeast Indiana Plans and Programs

2030 Transportation Plan Technical Report Fort Wayne-New Haven-Allen County Metropolitan Planning, Amended May 2007

This document will guide decision making concerning project selection, implementation, and community growth for transportation in the Fort Wayne, New Haven and Allen County region through 2030. The plan considers highway, transit, and alternatives. General transit improvement categories in the plan are route modifications, capital projects, and service modifications designed to increase transit efficiency and improve transit service. Among other specific transit recommendations are reduced headways, design and construction of a downtown intermodal transfer/transportation center, expanded service hours and Sunday service, and installation and upgrading of bus shelters, benches, and other customer

amenities. The plan also encourages transit policies that guiding future transit growth, methods of service delivery, and transit efficiency.

Transportation Summary Report Fiscal Year 2007

The Northeastern Indiana Regional Coordinating Council (NIRCC) prepares this annual report to illustrate some of the transportation planning activities conducted and the products they produced during the previous fiscal year. Included in the 2007 report is a summary of the traffic surveillance activities, intersection and arterial analyses, corridor studies, travel time and delay studies; Fiscal Year 2008-2011 Transportation Improvement Program (TIP) Projects for the Fort Wayne-New Haven-Allen County Metropolitan Planning Area, Safety Management System (SMS) activities, Transit planning activities, and bicycle/ pedestrian planning activities. The Transit Planning activities section highlighted the completion of the Allen County Coordinated Public Transit-Human Services Coordination Plan.

Coordinating Development and Transportation Services: A Guide for Developers, Engineers, and Planners

The Northeastern Indiana Regional Coordinating Council (NIRCC) prepared this guide to encourage the coordination of land use and transit and promote incorporation of transit considerations into development plans for the Fort Wayne-New Haven-Allen County urbanized area. The plans recommendations present transit friendly design elements and criteria that are necessary for safe and efficient transit service provision.

Coordinated Public Transit - Human Services Transportation Plan for Allen County Northeastern Indiana Regional Coordinating Council, May 2007/ DeKalb, Huntington, LaGrange, Noble, Steuben, and Whitley Counties, November 2007

These documents evaluate existing transportation providers and the unmet transportation needs/duplications in human service agency and public transportation service for each area within the State. Additional information was gathered through review of the 2006 INDOT Annual Report, stakeholder meeting input, and follow-up telephone interviews and emails.

I.5 West Central Indiana Plans and Programs

CityBus Transit Needs Study Final Report, March 2007

This report presents a plan to expand CityBus' existing route network to accommodate recent growth and planned new developments outside of the current service area. The study focuses on the city's south and east sides. Key stakeholder interviews and a customer survey enabled input from current users and the general public. Two design objectives informed the development of proposed improvements to the system—providing cost-effective public transportation with minimal impact on annual operating costs and offering connections to major activity centers that are direct and easy to understand. Improvements include modifications to existing routes and new routes and are outlined in the study by East and South Lafayette.

The Economic Impact of CityBus, September 2005

This report assesses the economic impact of transit in Lafayette by providing a quantitative analysis of the benefits generated by CityBus. Using methods and tools established by the FTA, the four benefit areas considered in the report are Operating, Congestion Relief, Affordable Mobility, and Neighborhood Development benefits. Results are based on historical and current data. The study found the economic impacts of CityBus to be substantial and represent a rate of return of nearly 5 to 1 when comparing the total income impact to CityBus' operating budget of $6.99 million.

Coordinated Public Transit Human Services Transportation Plans for Kokomo and Howard County, Indiana, April 2008/ Tippecanoe County, May 2008/ West Central Indiana Economic Development District, Inc., September 2007

These documents evaluate existing transportation providers and the unmet transportation needs/duplications in human service agency and public transportation service for each area within the State. Additional information was gathered through review of the 2006 INDOT Annual Report, stakeholder meeting input, and follow-up telephone interviews and emails.

Other West Central Plans and Programs reviewed included:

- Kokomo/Howard County Governmental Coordinating Council MPO Amendment to 2030 Long Range Transportation Plan, Amended December 2007
- Transportation Plan for 2030 – Tippecanoe County, Amended June 2007
- Wabash Trolley Impact Study, May 2008
- CityBus Five Year Strategic Plan, February 2008

I.6 Southeast Indiana Plans and Programs

Columbus Area Metropolitan Planning Organization (CAMPO) Long Range Transportation Plan 2008

This plan provides long-range guidance for transportation system development in Bartholomew County, Jackson Township in Shelby County and Blue River Township in Johnson County. The plan identifies future transportation needs and recommends long-term improvement projects for highway, freight, non-motorized and mass transportation. The plan summarizes a 2004 bus transit study that found no major deficiencies with ColumBUS Transit (the fixed-route and demand-responsive service provider for the region) and made several recommendations including route modifications, improved route frequency, and extended hours of operation.

OKI 2030 Regional Transportation Plan - 2004 Update

This long range plan establishes a blueprint for regional projects through 2030 by addressing current and future needs created by growth and development. The plan

incorporates highway, transit, bicycle and pedestrian, water, and air transportation needs. The region includes several transit services. Catch-a-Ride, a point deviation and demand-responsive service operated by the Southeastern Indiana Regional Planning Commission, is the only public transit provider in the Indiana portion of the OKI region. The plan presents several transit recommendations: expansion of bus transit service, application of technology to operations and customer service, construction of additional transit centers and park-and-ride lots, improved service frequency and more express service, and preservation and acquisition of rail transit right-of-ways.

Horizon 2030 Long-Range Transportation Plan for the Louisville (KY-IN) Metropolitan Planning Area, 2005 (Revised 2007)

This plan establishes a guiding vision for transportation in Clark, Floyd and a portion of Harrison counties in Indiana; and Bullitt, Jefferson, and Oldham counties in Kentucky. It identifies future transportation needs and recommends long-term improvement projects for the region. Ticket-to-Ride is the ridesharing program for the MPA and this program introduces two projects in Horizon 2030, one for Indiana, to expand its vanpool program.

Columbus Area Metropolitan Planning Organization Coordinated Human Services Transportation Plan, 2007/ OKI Region, August 2007/Kentuckiana Regional Planning and Development Agency, May 2007

These documents evaluate existing transportation providers and the unmet transportation needs/duplications in human service agency and public transportation service for each area within the State. Additional information was gathered through review of the 2006 INDOT Annual Report, stakeholder meeting input, and follow-up telephone interviews and emails.

Other West Central Plans and Programs reviewed included:

- TARC Comprehensive Customer Service Survey, September 2005
- Transit Standards Manual: A Reference Guide, June 2006
- Dearborn County Transportation Assessment, March 2004

I.7 Southwest Indiana Plans and Programs

Evansville MPO 2035 Transportation Plan 2008

This plan provides long-range guidance for transportation system development in Evansville, Indiana – Henderson, Kentucky Urbanized Area. The plan identifies future transportation needs and recommends long-term improvement projects for highway, freight, transit and alternative modes. The Metropolitan Evansville Transit System (METS) is the primary fixed-route and paratransit service transportation provider in the Indiana portion of the Evansville MPO. The plan suggests improvements for this and Kentucky based transit service in four general areas: vision and mission, service, marketing, and air quality. Specific recommendations include implementation of a mission to continuously improve transit network, route

modifications to meet land use and customer service needs, development of park-and-ride system, provision of regional service options, and use of 100% alternative fuel fleet. The plan estimates costs of improvements and incorporates revenue projections from government sources.

Coordinated Public Transit Human Services Transportation Plan – Evansville Metropolitan Planning Organization, June 2007

The Evansville Metropolitan Planning Organization completed this plan for Vanderburgh and Warrick Counties in Indiana and Henderson County in Kentucky. The planning process included demographic and travel data collections, stakeholder surveys, and public meetings. Consultation of a state directory of public transit organizations as well as the United Way of Southwestern Indiana's listing of human service organizations enabled identification of two public transit service providers and over 15 human service or private transportation service providers.

Appendix J
Indiana Mass Transit Studies
PL 203-2007

Indiana Department of Transportation
December 2008

Appendix J
Public Opinion Poll

Appendices B and C referenced in this report are included in Appendix K of the overall Mass Transit Studies Report.

SURVEY RESEARCH CENTER AT IUPUI

Indiana Department of Transportation – Public Opinion Survey 2008

Summary of Methods and Findings

December 22, 2008

Submitted by
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The Survey Research Center at IUPUI, a unit of the IU School of Liberal Arts, is an interdisciplinary survey research center that provides services to a wide variety of private, non-profit and governmental organizations. The lab also serves the entire IUPUI campus by conducting research for faculty members, students and various university departments.

This report was prepared by Jim Wolf and Anne Jolliff.

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Executive Summary

The Survey Research Center at IUPUI conducted a telephone survey for URS Inc. as part of a public transportation project it was conducted for the Indiana Department of Transportation (INDOT). The survey involved 1,693 interviews with randomly selected adults throughout Indiana. The survey was conducted in September and October of 2008 and resulted in a response rate of 26 percent. The interview covered a variety of topics related to public opinion and experiences with public transit.

Many respondents felt the main benefit of public transportation was that it is a good cost saving measure (39%) or that it was good for the environment (23%). There were some regional differences in perceived benefits as well as differences based on income, with higher income respondents more interested in the pollution control issues than lower income adults. The main drawbacks mentioned by respondents had mostly to do with the lack of freedom compared to using one's own vehicle (47%) and inconvenient routes (23%). These concerns were quite similar throughout the state with no significant regional differences found.

About 60 percent of adults in Indiana changed their driving habits as a result of the increase in gas prices. The proportion of people who changed their driving habit varied throughout the state with people in rural areas much more likely to change than in urban areas. The vast majority of these changes involved more attention to planning trips to avoid unnecessary trips, such as planning trips to the store when coming home from work rather than making an extra trip. Respondents were asked to report the price of gas when they began making changes in their driving. It was about $2.80 overall, with little variation throughout the state.

Approximately 83 percent of adults in Indiana have never used public transit. Only about five percent report they use it at least once a week; minorities and low income adults are four times as likely to be daily users. There were significant regional differences which should be expected due to the unavailability of public transit in many areas. However, over two-thirds of rural adults report they do not have public transit available to them in their community.

Roughly 40 percent of the adults in Indiana feel that public transit should be the responsibility of local government and another 40 percent feel it should be run by state government. This does fluctuate significantly when comparing different regions of the state. Two-thirds of the public feel steps should be taken to raise more revenue for public transportation. No more than 15 percent support any one type of tax, though many more (47%)

support creative uses of grants and diversion of dollars from non-transportation sources such as alcohol, tobacco and gambling revenues.

Respondents were asked to rate the importance of several sets of priorities:

1. INDOT priorities for public transportation
2. General transportation priorities in their communities
3. INDOT general transportation priorities in Indiana.

The one recurring theme throughout these three sets of options was the preference among Indiana adults to focus on vulnerable populations. The needs of the elderly, the disabled and low income consistently ranked at or near the top of the lists. The one exception was that for local transportation priorities, street and highway maintenance was most important.

Methodology

The information presented in this section conforms to the best practices guidelines for full disclosure as promoted by the American Association of Public Opinion Research.[1]

The survey described in this report was conducted by the Survey Research Center at IUPUI. The work was conducted under contract with the URS Corporation, providing mass transit consultation services to the Indiana Dept. of Transportation. The purpose of the survey was to determine the attitudes and behaviors of adults in Indiana regarding public transportation. The results of this study will assist policy makers in better understanding public perception and use of mass transit and will determine future public policy and resource allocation throughout the state.

The target population for the survey was all adult residents of Indiana. In order to allow for comparisons within geographic regions of the state, all 92 counties were assigned to one of six regions of Indiana. Roughly equal numbers of interviews (280) were conducted in each of the six regions resulting in 1,693 interviews.

Households were initially contacted by phone using a randomized list of phone numbers purchased from Survey Sampling Incorporated. If there was more than one adult in the home, the interviewer used a random selection process to identify the desired respondent. All telephone interviews were conducted by experienced and supervised interviewers. The average interview lasted for approximately 12 minutes. Data collection began on September 11 and ended on October 13, 2008. When using the entire sample, the error for this study does not exceed +/- 2.4%. The questionnaire used by interviewers is found in Appendix A.

Data were weighted to compensate for non-response by people of certain age and gender characteristics. The weight (W_{ijk}) for a respondent with a specific age (i), gender (j) and region (k) combination is determined by dividing the proportion of people in the entire population (P) with that specific combination of characteristics (P_{ijk}) by the proportion of the people in the survey sample (p) with that same combination of characteristics (p_{ijk}). Therefore the weight for each respondent is calculated using the following formula: $W_{ijk} = \frac{P_{ijk}}{p_{ijk}}$.

[1] For details on this and other professional standards visit their website: http://www.aapor.org/disclosurestandards/ .

Table 1. Survey Participation Rates

Rate:	Percent	Definition
Response Rate	26.1%	the number of completed interviews divided by the number of eligible respondents in the sample
Cooperation Rate	42.4%	the number of completed interviews divided by the number of eligible respondents ever contacted
Refusal Rate	35.4%	the number of interview refusals or break-offs divided by the number of eligible respondents in the sample
Contact Rate	63.6%	the number of eligible respondents ever contacted divided by the number of eligible respondents in the sample

The response rate for this study (26%) is fairly standard for telephone surveys of the general population in which no financial incentives are offered to complete an interview of this length. A review of the demographic characteristics of the sample reveals that the sample of adults interviewed for this survey reflect the general population.

Demographic Characteristics of the Sample

Interviews were conducted with 1,693 randomly selected Indiana adult residents. The data obtained from the interviews and reported in this document were weighted by age and gender to account for the known non-response bias in the sample. Respondents were first asked a series of questions to verify their eligibility for inclusion in the study. In order to be interviewed, respondents were required to verify that they were at least 18 years of age and a current resident of Indiana. Table 2 illustrates selected demographic characteristics of these individuals.

The unweighted percentages reflect the actual distribution of the respondents who participated in the survey. Following professional standards, the results are weighted to compensate for the known discrepancies between age and gender distributions in the sample compared to the Census data for Indiana. The result is a dataset that closely reflects the actual responses of the population. The weighted responses to each question are found in Appendix B.

Table 2. Weighted and Unweighted Respondent Demographics

	N	% (unweighted)	% (weighted)
Gender			
Male	726	42.9%	48.6%
Female	967	57.1%	51.4%
Age			
18-34	213	12.6%	25.7%
35-49	494	29.3%	34.0%
50+	981	58.1%	40.2%
Race/Ethnicity			
White	1547	92.8%	89.0%
Black	63	3.8%	6.3%
Latino	22	1.3%	2.3%
Other	35	2.1%	2.5%
Income			
<$15K	162	11.4%	11.0%
$15-24999	207	14.6%	12.8%
$25-49999	388	27.3%	27.9%
$50-74999	303	21.3%	20.8%
$75-99999	206	14.5%	15.7%
$100K+	156	11.0%	11.8%
Sampling Regions:			
North East	290	17.1%	24.7%
North West	281	16.6%	13.5%
Central West	280	16.5%	10.2%
South East	282	16.7%	12.7%
South West	281	16.6%	9.6%
Central	279	16.5%	29.3%
Live in MSA	1202	71.0%	77.8%
Household Cars			
0	51	3.0%	2.5%
1	406	24.0%	23.0%
2	672	39.7%	40.8%
3	336	19.9%	20.2%
4+	226	13.4%	13.5%

The results in Table 2 indicate that there were more female (57%) and male (43%) respondents though the actual distribution is closer to 52% and 49%, respectively. The unweighted age distribution also reflects the problem of reaching fewer young adults (13%) than there actually are in the population (26%). As a result, there are far more older adults in the

sample (58%) than in the population (40%). The remaining tables in this report will show weighted percents and actual number of respondents (N) on which the weighted percents are based. These weighted percents reliably reflect the population of Indiana.

Table 3. Employment Characteristics

	N	Percent
Employment		
Full-time	723	50.7%
Part-time	171	11.2%
Not Employed	791	38.1%
Miles to Work		
5 or less	283	29.5%
6-10	179	21.9%
11-15	131	14.5%
16-20	80	10.8%
21-25	53	6.7%
26-30	27	2.6%
31+	110	14.1%
Minutes to Work		
5 or less	143	14.6%
6-10	158	16.4%
11-15	140	14.8%
16-20	130	14.5%
21-25	74	9.7%
26-30	73	10.1%
31+	159	20.0%
Parking		
% who pay to park for work	48	3.9%

About 60 percent of the adult population in Indiana is currently in the workforce. Half report they live within 10 miles of their job, but nearly one in seven workers reports living more than 30 miles from work. It takes most workers more than 15 minutes to get to work. Twenty percent of Indiana employees report they need <u>at least</u> half an hour to get to work every day.

It should also be noted that one of the original intent of the study was to be able to compare various regions of the state to one another with equal precision. As a result, there were an equal number of interviews completed in each of the six regions. The weighted results reflect the actual age, gender and geographic distribution of the population. Figure 1 shows which counties were included in each of the six regions.

Figure 1. Sampling Regions Used in Survey

Perceived Benefits and Drawbacks of Public Transportation

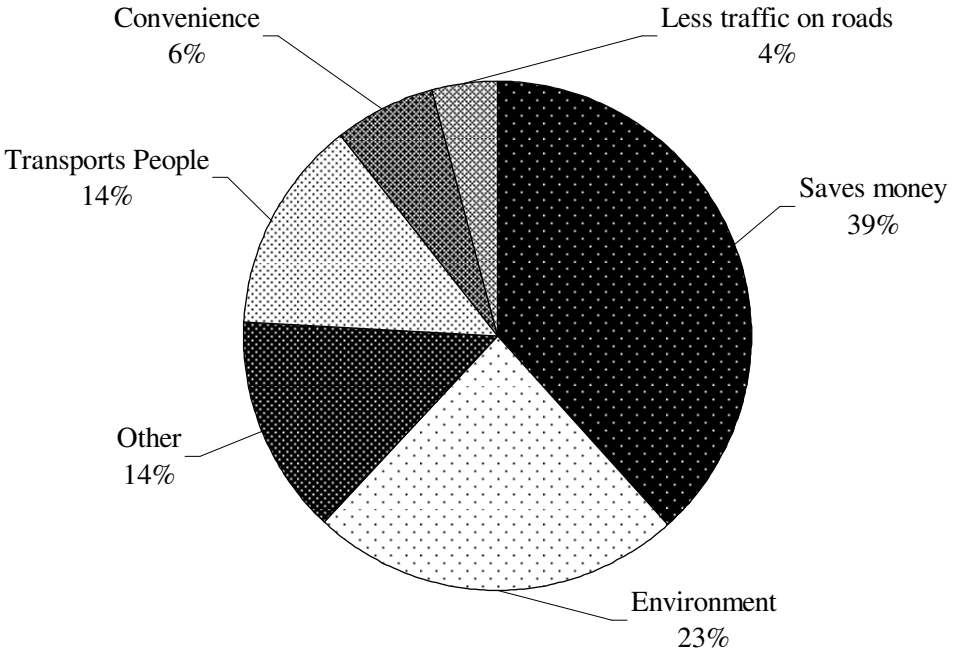
All respondents were asked two open-ended questions early in the interview[2]:

Q7. What do you think is the most important benefit of public transportation?

Q8. What do you think is the biggest drawback of public transportation?

The responses covered a broad range of issues but were recoded into categories for analysis. Figure 2 shows the distribution of responses for adults throughout Indiana regarding their spontaneous ideas regarding the benefits of public transportation.

Figure 2. Perceived Benefits of Public Transportation



When asked this question, the majority of Indiana adults responded that the main benefits of public transportation are that it saves money (39%) and that it helps the environment because it cuts down on pollution (23%). An additional fourth of the population feels mass transit is

[2] All responses to all open-ended questions are contained in Appendix C.

beneficial because it gets people where they want to go[3], it is convenient and there is less traffic on the road.

Table 4a. Perceived Benefits of Public Transportation, by Region

	Region						
	N. West	N. East	Cent. West	S. East	S. West	Central	State Totals
Cost/Saving money	35.9%	41.5%	35.2%	41.2%	37.2%	39.2%	38.5%
Environmental reasons	31.0%	25.5%	21.6%	26.9%	22.1%	15.5%	23.4%
Other	12.1%	13.5%	17.9%	13.8%	11.8%	15.0%	13.9%
Transporting people	9.8%	13.3%	14.1%	11.5%	20.6%	15.6%	13.7%
Convenience	6.4%	4.2%	7.0%	5.3%	4.3%	8.1%	6.3%
Less traffic on roads	4.9%	2.1%	4.2%	1.4%	4.0%	6.2%	4.3%
N (unweighted)	290	281	280	282	281	279	1693

Note: There is a significant relationship between the perceived benefits of public transportation and region at the .05 level.

Table 4b. Perceived Benefits of Public Transportation, by Demographics

	Income		**Race**		**Urbanicity**		**Public Trans. Use**	
	<$25000	$25000+	Black/ Hispanic	White/ Other	Urban	Rural	At least once	Never
Cost/Saving money	39.5%	39.6%	51.2%	37.3%	37.3%	42.8%	34.6%	39.3%
Environmental reasons	18.7%	24.6%	14.2%	24.4%	23.5%	23.3%	25.9%	22.9%
Other	13.4%	13.3%	5.5%	14.5%	14.1%	13.2%	14.4%	13.8%
Transporting people	19.6%	11.1%	20.4%	13.0%	13.6%	13.7%	12.7%	13.9%
Convenience	6.8%	6.4%	7.3%	6.3%	6.5%	5.5%	7.9%	6.0%
Less traffic on roads	2.0%	5.1%	1.4%	4.5%	5.0%	1.5%	4.5%	4.2%
N (unweighted)	369	1053	85	1582	1202	491	235	1458

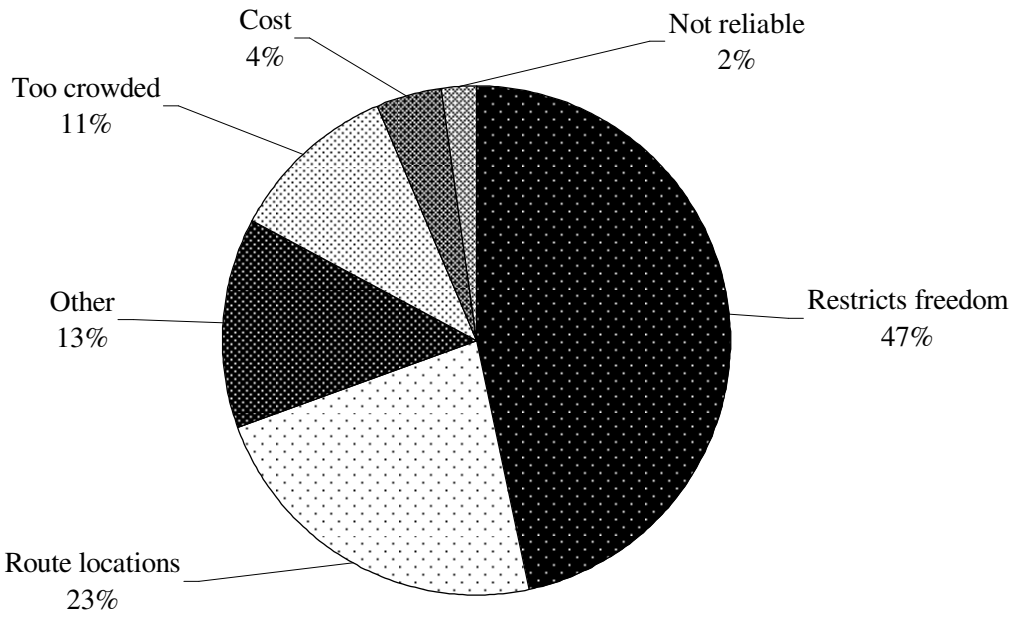
Note: There is a significant relationship between the perceived benefits of public transportation and income and race at the .05 level. Urbanicity and public transportation use are **not** significantly related to perceived benefits of public transportation.

[3] Often, respondents reported that the biggest benefit of public transportation was that it got people to and from work or that it allowed people who did not have vehicles to travel places (e.g. grocery, friends' houses, etc.). These types of responses were grouped into one category called "Transports People."

Table 4a shows the breakdown of the responses across the six regions of Indiana that were of interest in this study. Although there were differences in the percentages from one district to another, it is most important to note that the order of priorities is roughly the same throughout the state. There were statistically significant differences between regions including a very high proportion of adults in the Northwest region (31%) reporting "environmental reasons" as the main benefit of public transportation compared to half that rate (16%) in the Indianapolis area. Also, 20 percent of those in the Southwest part of the state feel the main benefit of public transit is the efficiency of "transporting people" compared to only 10 percent in the Northwest region.

Significant differences were also found between people of different income levels. There was general agreement in the most important benefit (cost) but the ease of transportation was the second most frequently mentioned benefit by low income adults compared with environmental concerns mentioned by higher income adults. These same differences in priorities were found to be true when comparing the responses of African American and Hispanic minorities to the rest of the sample.

Figure 3. Perceived Drawbacks of Public Transportation



The main drawback of mass transit in the minds of nearly half of adults in Indiana is that using public transportation restricts the independence of the individual to go where they want to go. When the comments about access to regular routes are included, over two-thirds of adults in Indiana express immediate reservations about mass transit due to their perceived restrictions on getting where they want to go when they want to get there. Fewer than ten percent felt that cost or reliability were significant problems with public transportation.

Table 5a. Perceived Drawbacks of Public Transportation, by Region

	Region						State Totals
	N. West	N. East	Cent. West	S. East	S. West	Central	
Restricts freedom	46.7%	47.0%	43.8%	44.6%	50.7%	47.0%	46.7%
Route locations	17.4%	23.1%	24.5%	23.4%	21.2%	26.8%	22.8%
Other	11.7%	15.8%	15.2%	12.8%	14.2%	13.3%	13.4%
Too crowded	15.4%	10.7%	8.9%	13.2%	10.4%	6.8%	10.8%
Too expensive	6.4%	2.0%	3.9%	2.9%	3.4%	3.9%	4.1%
Not reliable	2.4%	1.4%	3.7%	3.1%	0.3%	2.2%	2.2%
N (unweighted)	290	281	280	282	281	279	1693

Note: There is **no** significance relationship between perceived drawbacks of public transportation and region.

Table 5b. Perceived Drawbacks of Public Transportation, by Demographics

	Income		**Race**		**Urbanicity**		**Public Trans. Use**	
	<$25000	$25000+	Black/ Hispanic	White/ Other	Urban	Rural	At least once	Never
Restricts freedom	34.5%	49.7%	34.6%	47.8%	47.3%	44.4%	50.3%	45.9%
Route locations	28.2%	20.5%	24.1%	23.1%	22.1%	25.1%	20.1%	23.3%
Other	13.9%	13.9%	15.3%	13.0%	13.2%	14.3%	12.0%	13.7%
Too crowded	13.0%	10.4%	10.2%	10.8%	10.6%	11.6%	6.8%	11.7%
Too expensive	4.8%	3.7%	9.3%	3.5%	4.1%	4.3%	5.0%	3.9%
Not reliable	5.6%	1.8%	6.6%	1.8%	2.7%	0.3%	5.8%	1.4%
N (unweighted)	369	1053	85	1582	1202	491	235	1458

Note: There is a significant relationship between perceived drawbacks of public transportation and income, race, and public transportation use at the .05 level. Urbanicity is **not** significant.

As with the comparison of perceived benefits, there is great consistency across regions in the priorities of the drawbacks to using public transit. The one notable exception is that

crowding on buses is twice as likely to be reported as the main drawback in the Northwest (15%) than in the Central (7%) region, but overall, between region differences were not statistically significant. Lower income adults, as well as African American and Hispanic adults are less likely to feel that restriction of freedom is the most important drawback but more likely to be concerned about route locations. It should be noted that being "too crowded" is reported by people who have never used public transportation almost twice as often (12%) as those who have used it (7%).

Impact of Gas Prices on Driving Habits

Q4. In the past 12 months, have you changed your driving patterns as a result of the change in gas prices? (If "Yes") At what price per gallon of gasoline did you begin to make these changes?

Nearly 60 percent of adults in Indiana changed their driving patterns in the past 12 months as a result of gas prices. Of those who have changed their driving patterns in the past 12 months, the average price per gallon of gas where the change occurred was $2.82. Regional

Table 6a. Reported Changes in Driving Habits, by Region

	Region						State Totals
	N. West	N. East	Cent. West	S. East	S. West	Central	
% reporting change in driving	61.1%	64.8%	61.4%	65.8%	63.5%	52.0%	59.8%
Avg. gas price changed occurred	$2.78	$2.86	$2.88	$2.79	$2.83	$2.84	$2.82

Note: The percent of respondents who report a change in driving due to gas prices is significantly different by region at the .05 level; however, average gas price in which the change occurred is **not** significantly different.

Table 6b. Reported Changes in Driving Habits, by Demographics

	Income		**Race**		**Urbanicity**		**Public Trans. Use**	
	<$25000	$25000+	Black/ Hispanic	White/ Other	Urban	Rural	At least once	Never
% reporting change in driving	***57.4%***	***61.9%***	***69.4%***	***58.9%***	***58.1%***	***65.5%***	***55.3%***	***60.7%***
Avg. gas price changed occurred	$2.96	$2.78	$3.12	$2.80	$2.81	$2.85	***$2.92***	***$2.80***

Note: The relationships between percent reporting change in driving and income, race, urbanicity, and public transportation use are significantly at .05 level. Public transportation use is significantly related to the average gas price a change occurred (at the .05 level). No other demographic characteristic significantly affected the average gas price a change occurred.

differences in whether drivers changed their habits were significant. Central Indiana is where drivers were least likely to report changing their driving habits (52%) whereas the rest of the state reported rates of roughly 10 percent higher. However, the threshold price of gas at which people changed their driving habits only varied from $2.78 to $2.88 and was not significantly correlated with reported change.

Those who reported they had changed their driving habits due to the rising cost of gas were asked how they had changed their driving. The comments (listed in Appendix C) were overwhelmingly referencing ways of reduce driving. Combining shopping with commuting was among the most common reasons.

Significant differences were also found in the demographic characteristics of those who reported that changed their driving habits. It appears to have been more common among middle income adults ($25-75,000 income) than among those with lower or higher incomes. Black and Hispanic minorities were much more likely to report this type of change than others, as were people who lived in rural areas.

Use of Public Transportation

Experience with using public transit was measured in terms of the respondents reported frequency of use within their community:

Q5. When I refer to "public transportation" I primarily mean bus and train service or a publicly funded mass transportation system. How often do you typically use public transportation services in your community?

Figure 4 shows that statewide fewer than one in five adults have ever use public transportation in their lifetime; only about five percent report using it at least weekly. The results shown in Table 7 reveal significant differences in regions are clearly due to access to public transit. Regions that include Lake and Marion counties have the highest rates of current and lifetime reported use.

Figure 4. Use of Public Transportation

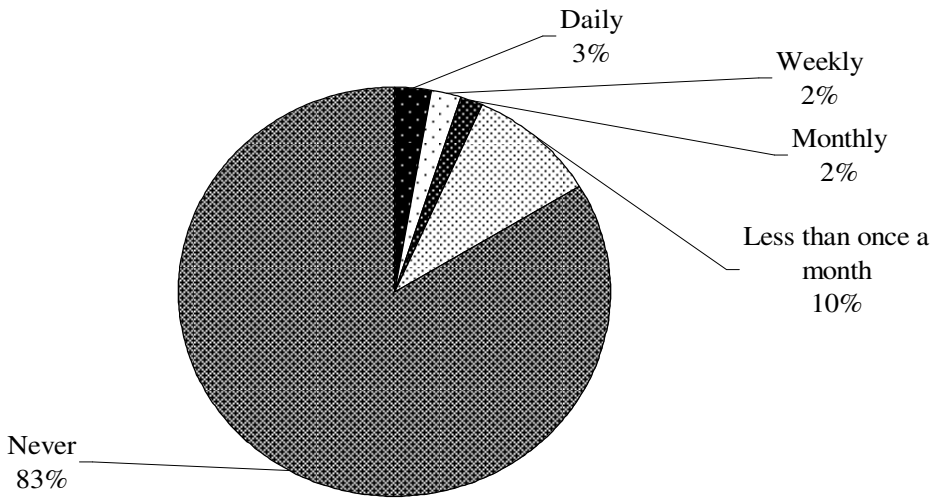


Table 7a. Public Transportation Frequency of Use, by Region

	Region						State Totals
	N. West	N. East	Cent. West	S. East	S. West	Central	
Ever:	22.3%	8.4%	13.3%	11.9%	13.5%	19.3%	16.5%
Daily	2.0%	1.1%	2.2%	2.7%	2.4%	4.3%	2.7%
Weekly	0.8%	2.1%	3.0%	3.0%	3.7%	2.6%	2.3%
Monthly	1.7%	2.2%	0.5%	1.2%	3.2%	2.0%	1.8%
Less than monthly	17.8%	3.0%	7.6%	5.1%	4.2%	10.3%	9.7%
Never	77.7%	91.6%	86.7%	88.1%	86.5%	80.7%	83.5%
N (unweighted)	290	281	280	282	281	279	1693

Note: Region is significantly related to the frequency a respondent reported using public transportation at the .05 level.

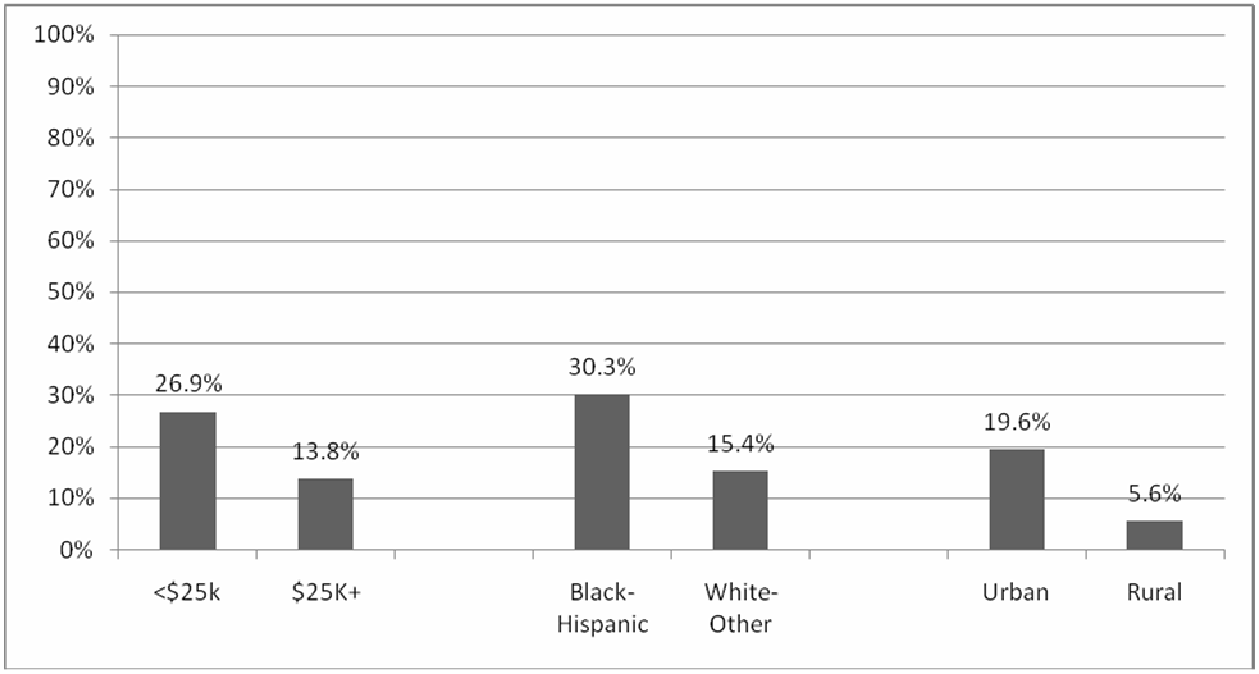
The percent of adults reporting that they had "ever" used public transportation in their lifetime varied significantly by income, race and location (see Figure 5). Those in households making less than $25,000 per year were more than twice as likely to have used mass transit as middle income adults. Blacks and Hispanics were twice as likely as others and people in urban areas more than three times as likely as those in rural areas.

Table 7b. Public Transportation Frequency of Use, by Demographics

	Income		Race		Urbanicity	
	<$25000	$25000+	Black/ Hispanic	White/ Other	Urban	Rural
Daily	7.8%	1.6%	9.1%	2.1%	3.4%	0.3%
Weekly	5.0%	1.4%	5.2%	2.1%	2.7%	0.9%
Monthly	3.3%	1.5%	4.2%	1.6%	2.1%	0.8%
Less than once a month	10.9%	9.3%	11.7%	9.6%	11.4%	3.6%
Never	73.1%	86.2%	69.7%	84.6%	80.4%	94.4%

Note: Income, race, and urbanicity are significantly related to the frequency a respondent reported using public transportation at the .05 level.

Fig 5. Percent Reporting Ever Using Public Transportation, by Demographics



Of those who had "ever" used public transit, most (59%) use it less than once a month. Sixteen percent use it daily; 30% use it at least weekly.

Respondents who reported they don't regularly use public transit were asked:

Q6. At what gas prices would you consider using public transportation?

Spontaneous answers to this question, shown in Table 8, reveal significant regional differences among those reporting current use, unwillingness to use public transit regardless of the price of gas and the belief by over half of adults in the state that public transportation is not available to them. For those who would switch from driving to using public transit if gas prices got too high, the average price of a gallon of gas would need to be $3.23 before respondents would consider using public transportation. Price differences were found to be statistically significant. The lowest reported threshold ($2.73) was in the Central West region and the highest ($3.55) was the Southwest region.

Table 8a. Gas Price Threshold for Using Public Transit, by Region

	Region						State Totals
	N. West	N. East	Cent. West	S. East	S. West	Central	
I use public trans-portation already	3.3%	2.9%	3.9%	6.3%	5.8%	7.5%	5.2%
I would never use public transportation	19.0%	17.5%	15.7%	17.1%	9.7%	19.2%	17.4%
I have no public transportation available	52.7%	55.8%	54.9%	56.6%	55.5%	41.4%	50.8%
Avg. gas price would consider public transportation	$3.33	$3.23	$2.73	$3.18	$3.55	$3.22	$3.23

Note: Gas price threshold is significantly different by region at the .05 level.

Table 8b. Gas Price Threshold for Using Public Transit, by Demographics

	Income		**Race**		**Urbanicity**	
	<$25000	$25000+	Black/ Hispanic	White/ Other	Urban	Rural
I use public transportation already	11.9%	3.6%	11.8%	4.6%	6.2%	1.7%
I would never use public transportation	12.3%	18.2%	11.8%	17.9%	18.7%	12.7%
I have no public transportation available	37.4%	54.5%	22.8%	53.2%	45.5%	69.3%
Avg. gas price would consider public transportation	$2.85	$3.50	$3.04	$3.25	$3.30	$2.81

Note: Gas price threshold is significantly different by income, race, and urbanicity at the .05 level.

Low income adults were three times as likely to report they were already using public transportation compared to higher income adults. Over two thirds of adults in rural areas reported they did not have public transportation available in their community.

Support for Public Funding of Public Transportation

The next section of the interview was focused on asking questions related to public perception of government involvement in transportation policy in general and public transportation in particular.

Q9. Which level of government should be most responsible for providing public transportation: local, state or federal government?

A clear majority of Indiana adults feel that public transit should be the responsibility of local or state government (89%). However, whether state or local government should be responsible varies significantly from region to region. Over half of the adults in the Northeast and Southwest regions prefer local control, whereas nearly half of those in the Northwest and Southeast prefer state control. A notable proportion of the population (8%) could not answer the question because they did not know or had no preference.

Table 9a. Preferred Government Responsible for Public Transit, by Region

	Region						State Totals
	N. West	N. East	Central West	S. East	S. West	Central	
Local	36.1%	46.7%	39.8%	38.4%	51.1%	45.2%	42.3%
State	43.6%	35.5%	37.6%	41.9%	28.8%	40.1%	39.2%
Federal	11.5%	9.2%	10.8%	11.2%	13.1%	8.1%	10.2%
DK/NP	8.9%	8.7%	11.8%	8.5%	7.0%	6.6%	8.2%

Note: Preferred government responsible for public transportation is significantly different by region at the .05 level.

There were no significant differences in preference for responsibility for public transit by income lever, race or urban/rural location. However, there were significant differences between those who reported using public transportation compared to those who did not. Those with experience were much more likely to prefer state control rather than local control.

Table 9b. Preferred Government Responsible for Public Transit, by Demographics

	Income		Race		Urbanicity		Public Trans. Use	
	<$25000	$25000+	Black/ Hispanic	White/ Other	Urban	Rural	At least once	Never
Local	40.3%	41.8%	35.5%	43.1%	43.0%	39.6%	35.9%	43.5%
State	35.8%	41.7%	43.6%	39.0%	39.5%	38.0%	42.3%	38.6%
Federal	13.4%	10.0%	14.2%	9.9%	10.0%	11.2%	16.3%	9.0%
DK/NP	10.4%	6.5%	6.7%	8.0%	7.5%	12.1%	5.5%	8.8%

Note: Preferred government responsible for public transportation is significantly different by public transportation use at the .05 level. No other demographic group is significantly related to preferred government.

Respondents were then asked whether that branch of government mentioned they felt should be responsible for public transportation should find a way to generate more funds for public transportation:

Q13(a-d). Do you think the (Q9 type) government needs to generate new funding for public transportation?

(IF "Yes") In order to generate new funding for public transportation should there be an increase in

1. ***taxes,***
2. ***fares or***
3. ***some other form of funding?***

(IF TAXES) Please tell me if you would support or oppose an increase in the…

i. Gas tax
ii. Property tax
iii. Sales tax
iv. Income tax

Two thirds of adults in Indiana feel the government should increase revenues for public transportation. Over one-third (37%) of Indiana adults support the idea of generating new funding by raising at least one type of tax. About 39 percent support the idea of raising fares. Nearly half (47%) promote the idea of generating public transit revenues using some other form

of funding.[4] Those who support a tax increase were asked if they would support an increase in each of four types of taxes. Respondents could answer positively to all categories in Table 10, so the percent for each column will not add up to 100%.

Table 10a. Preferred Funding Sources for Public Transit, by Region

	Region						
	N. West	N. East	Cent.West	S. East	S. West	Central	State Totals
None (Govt should not increase revenues)	31.1%	35.5%	32.6%	37.2%	35.2%	32.1%	33.3%
Other Source	49.3%	51.3%	41.1%	44.1%	41.6%	48.8%	47.2%
Increase Fares	41.7%	36.3%	39.6%	38.8%	39.9%	37.6%	39.0%
Increase Taxes:	22.0%	22.8%	26.2%	26.0%	21.6%	25.8%	24.1%
Sales Tax	13.6%	14.3%	16.3%	17.6%	13.2%	16.6%	15.3%
Income Tax	9.9%	11.2%	15.4%	17.2%	9.7%	12.4%	12.3%
Gas Tax	5.6%	8.2%	9.0%	7.8%	7.2%	10.3%	8.1%
Property Tax	5.9%	7.3%	9.5%	4.2%	3.4%	7.6%	6.5%
N (unweighted)	290	281	280	282	281	279	1693

Note: Preferred funding sources are **not** significantly different by region.

Table 10b. Preferred Funding Sources for Public Transit, by Demographics

	Income		**Race**		**Urbanicity**		**Public Trans. Use**	
	<$25000	$25000+	Black/ Hispanic	White/ Other	Urban	Rural	At least once	Never
Other Source	56.3%	50.4%	***74.8%***	***48.8%***	***51.8%***	***46.0%***	***60.4%***	***48.6%***
Increase Fares	***32.3%***	***42.8%***	41.3%	39.3%	39.7%	36.9%	43.9%	38.1%
Increase Taxes:								
Sales Tax	14.2%	18.0%	16.9%	15.3%	16.0%	12.8%	***23.4%***	***13.7%***
Income Tax	13.1%	13.0%	10.6%	12.4%	12.3%	12.2%	***17.6%***	***11.2%***
Gas Tax	7.6%	8.7%	7.0%	8.4%	8.7%	6.1%	***15.1%***	***6.7%***
Property Tax	5.0%	7.9%	7.0%	6.5%	6.5%	6.4%	***10.4%***	***5.8%***
N (unweighted)	369	1053	85	1582	1202	491	235	1458

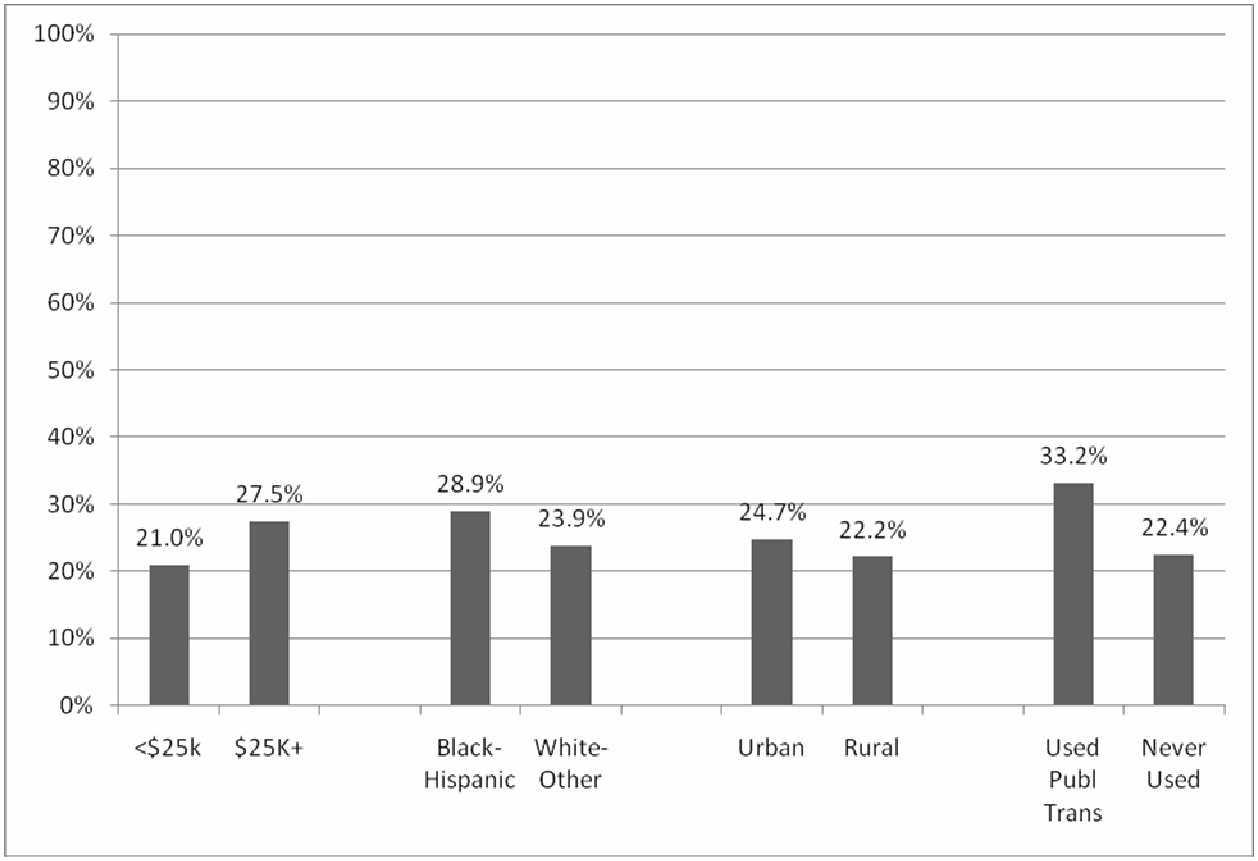
Note: Only bolded/italicized numbers are significantly different at the .05 level.

[4] Those reporting "other forms" of funding were asked to give examples. These verbatim comments appear in Appendix C.

Increase sales tax and income tax were the most common types of taxes mentioned among those supporting a tax increase to fund public transit. Increases in gas and property taxes were supported by about half as many people. Figure 6 displays the demographic characteristics of those who support tax increases of any type for public transportation. Those in the lowest income group were significantly least likely to support tax increases. Black and Hispanic minorities and residents of urban areas in general are most likely to favor increase in taxes to support public transit.

The largest category of revenue sources was "some other source". When asked to clarify what they meant by that, respondents gave a wide variety of responses. The most common ideas raised were to pursue corporate and charitable grants and to increase "sin" taxes on alcohol, tobacco and/or gambling. Many comments also merely expressed frustration with what was perceived as government waste of tax dollars.

Figure 6. Percent Supporting Any Tax Increase for Public Transit, by Demographics



Public Transportation Priorities

The final section of the interview dealt with the perceived priorities of the respondent regarding transportation in general and public transportation in particular. The first set of questions, randomized to avoid order effect, asked respondents to rate the importance of consumers of transportation services and resources.

Q12(a-f). Using a scale of 0 to 10, how important is it for INDOT to develop public transportation to meet the needs of…
(ORDER RANDOMIZED)
A. People going to work
B. Students
C. Senior citizens
D. People who do not own cars
E. Tourists
F. Persons with disabilities

Table 11a shows the rank ordering of priorities within each region was nearly identical when assessing the relative importance of the types of transportation resource users. However, there was significant fluctuation in the magnitude of the ratings of each type of user across regions. Adults in the Central region rated the relative importance of all types of users higher than all other regions; the Central West was about the lowest. The disabled and senior citizens were generally regarded as highest priority public transit users. Commuters and those who do not own cars were considered a secondary priority. Students and tourists were last.

Table 11a. Preferred INDOT Priorities for Public Transit, by Region

	Region						
	N. West	N. East	Central West	S. East	S. West	Central	State Totals
Persons with disabilities	8.54	8.79	8.43	8.90	8.83	8.94	8.75
Senior citizens	8.41	8.64	8.03	8.72	8.62	8.74	8.56
People going to work	8.16	7.81	7.79	8.11	7.98	8.41	8.12
People who do not own cars	7.66	8.21	7.53	7.87	8.25	8.51	8.05
Students	7.50	7.71	7.50	7.76	7.78	8.06	7.75
Tourists	5.45	5.53	5.03	5.76	5.63	6.16	5.68
N (unweighted)	290	281	280	282	281	279	1693

Note: All preferred priorities in the above table are significantly different by region at the .05 level.

A closer look at this issue by demographic characteristics (Table 11b) reveals additional significant differences. Highest ratings are regularly given by those with the lowest income, by black and Hispanic respondents and by those in urban areas.

Table 11b. Preferred INDOT Priorities for Public Transit, by Demographics

	Income		Race		Urbanicity		Public Trans. Use	
	<$25000	$25000+	Black/ Hispanic	White/ Other	Urban	Rural	At least once	Never
Persons with disabilities	***9.24***	***8.61***	***9.66***	***8.66***	8.76	8.72	***8.99***	***8.71***
Senior citizens	***9.03***	***8.44***	***9.46***	***8.47***	8.57	8.51	***8.78***	***8.51***
People going to work	***8.69***	***8.00***	***9.28***	***8.01***	***8.24***	***7.70***	***8.73***	***8.01***
People who do not own cars	***8.68***	***7.91***	***9.15***	***7.93***	***8.18***	***7.61***	***8.61***	***7.95***
Students	***8.33***	***7.63***	***9.17***	***7.61***	***7.83***	***7.50***	***8.20***	***7.67***
Tourists	***6.17***	***5.60***	***7.20***	***5.53***	***5.84***	***5.14***	***6.01***	***5.62***
N (unweighted)	369	1053	85	1582	1202	491	235	1458

Note: All preferred priorities for public transit in the above table are significantly different by income, race, urbanicity, and public transportation use at the .05 level.

General Transportation Priorities

Another set of questions, again randomized to avoid order effect, addressed relative important of various aspects of government policy related to transportation.

Q10(a-f). Using a scale of 0 to 10, how important do you think each of the following transportation priorities should be to the government in your area over the next 5 years:

(ORDER RANDOMIZED).

A. Building NEW roads/highways
B. Improving bus transportation
C. Improving passenger rail transportation
D. Improving transportation services for the elderly and persons with disabilities
E. Expand capacity of existing roads and highways
F. Maintaining existing roads and highways

The maintenance of exiting roads and highways was the top transportation priority of adults in Indiana across all regions of the state. However, improving transportation for the elderly and disabled was the highest priority among adults in low income households as well as among Black and Hispanic minorities. Statewide, improving passenger rail transportation was

tied with expanding the capacity of existing roads and highways with interest in rail being higher in the two largest metropolitan areas.

Table 12a. Preferred Local Priorities for Selected Policies, by Region

	Region						
	N. West	N. East	Cent. West	S. East	S. West	Central	State Totals
Maintaining existing roads and highways	8.64	8.47	8.72	8.78	8.75	8.79	8.70
Improving transportation for the elderly or people with disabilities	***8.24***	***8.15***	***7.71***	***8.32***	***8.29***	***8.30***	8.21
Improving bus transportation	***6.87***	***6.20***	***6.50***	***6.40***	***6.32***	***7.16***	6.72
Improving passenger rail transportation	***6.49***	***5.66***	***5.46***	***5.76***	***5.23***	***6.72***	6.13
Expand roads and highways	5.89	6.05	5.94	6.25	6.09	6.39	6.13
Building new roads and highways	5.90	5.80	5.74	5.92	5.80	6.07	5.91
N (unweighted)	290	281	280	282	281	279	1693

Note: Bold/italicized preferred priorities for transportation policy in the above table are significantly different by region at the .05 level.

Table 12b. Preferred Local Priorities for Selected Policies, by Demographics

	Income		**Race**		**Urbanicity**		**Public Trans. Use**	
	<$25000	$25000+	Black/ Hispanic	White/ Other	Urban	Rural	At least once	Never
Maintaining existing roads and highways	8.68	8.72	8.82	8.69	8.70	8.70	***8.65***	***8.71***
Improving transportation for the elderly or people with disabilities	***8.78***	***8.02***	***9.10***	***8.12***	8.20	8.25	***8.44***	***8.16***
Improving bus transportation	***7.39***	***6.66***	***8.45***	***6.53***	***6.94***	***5.96***	***7.88***	***6.49***
Improving passenger rail transportation	***6.66***	***6.01***	***8.41***	***5.90***	***6.37***	***5.28***	***7.25***	***5.91***
Expand roads and highways	***6.52***	***6.04***	***7.57***	***6.01***	***6.29***	***5.59***	***5.86***	***6.18***
Building new roads and highways	***6.32***	***5.73***	***7.35***	***5.78***	5.91	5.91	***5.76***	***5.94***
N (unweighted)	369	1053	85	1582	1202	491	235	1458

Note: Bold/italicized preferred priorities for transportation policy in the above table are significantly different by the noted demographic groups at the .05 level.

The last set of questions in the interview was focused specifically on INDOT. Respondents were asked to give feedback on six potential priorities for INDOT policy makers.

Q14(a-f). Using a scale of 0 to 10, how important is it to you for INDOT to…

(ORDER RANDOMIZED)

A. Reduce traffic congestion
B. Improve bus services
C. Improve passenger rail services
D. Make it easier for low income, elderly, and disabled persons to get around
E. Make it easier for pedestrians and bicyclists to get around
F. Improve the safety of the traveling public

As was found in the preferred INDOT priorities for public transit (Table 11a and 11b), concern for the elderly, disabled and low income people emerges as the top priority for general transportation policies statewide, within each region, and across all main demographic categories. Transportation safety was the second highest priority across all analytic categories. Rank ordering of the remaining categories varied at times across regions and by other respondent demographic types. However, the overall trend across all priority measures has mostly been on providing for those who are most likely to rely on public transportation (elderly, disabled and low income) over other matters such as expanding road capacity

Table 13a. Preferred INDOT Priorities for Selected Policies, by Region

	Region						State Totals
	N. West	N. East	Central West	S. East	S. West	Central	
Make it easier for low income, elderly, and disabled persons to get around	***8.51***	***8.47***	***7.94***	***8.44***	***8.48***	***8.69***	8.49
Improve the safety of the traveling public	8.32	8.01	8.02	8.27	7.93	8.27	8.19
Reduce traffic congestion	***7.35***	***7.01***	***7.37***	***7.37***	***7.24***	***7.96***	7.48
Make it easier for pedestrians and bicyclists to get around	***6.87***	***7.32***	***6.98***	***7.14***	***7.07***	***7.47***	7.17
Improve bus services	***7.18***	***6.84***	***6.57***	***6.58***	***6.58***	***7.60***	7.06
Improve passenger rail services	***6.89***	***5.82***	***5.67***	***5.85***	***5.57***	***6.70***	6.31
N (unweighted)	290	281	280	282	281	279	1693

Note: Bold/italicized preferred priorities for transportation policy in the above table are significantly different by region at the .05 level.

Table 13b. Preferred INDOT Priorities for Selected Policies, by Demographics

	Income		Race		Urbanicity		Public Trans. Use	
	<$25000	$25000+	Black/ Hispanic	White/ Other	Urban	Rural	At least once	Never
D. Make it easier for low income, elderly, and disabled persons to get around	***9.13***	***8.29***	***9.49***	***8.38***	8.51	8.42	***8.84***	***8.42***
F. Improve the safety of the traveling public	***8.47***	***8.10***	***9.27***	***8.09***	8.19	8.19	8.37	8.15
A. Reduce traffic congestion	***7.82***	***7.42***	***8.63***	***7.39***	***7.62***	***6.95***	7.57	7.46
E. Make it easier for pedestrians and bicyclists to get around	***7.69***	***7.01***	***8.64***	***7.02***	***7.25***	***6.91***	***7.75***	***7.06***
B. Improve bus services	***7.95***	***6.84***	***8.59***	***6.90***	***7.18***	***6.63***	***7.94***	***6.88***
C. Improve passenger rail services	***6.90***	***6.17***	***8.10***	***6.13***	***6.44***	***5.82***	***7.29***	***6.11***
N (unweighted)	369	1053	85	1582	1202	491	235	1458

Note: Bold/italicized preferred priorities for transportation policy in the above table are significantly different by the noted demographic groups at the .05 level.

Conclusions

As INDOT prepares for the immediate future, there are some clear guidelines that can be gleaned from this study:

1. There are significant regional differences in priorities, attitudes and reported use of public transit that should be factored in to the planning process (local input is needed),
2. A significant majority (over 80%) of the adult population in Indiana has no experience using public transportation and therefore are basing their opinions on speculation (public education is needed),
3. A majority of adults (60%) reported they changed their driving habits as a result of higher gas prices, but almost none reported they started using public transit,
4. Major drawbacks to using public transit center on the perception of loss of spontaneity and freedom that comes with using one's own vehicle. Yet, the main

driving change people reported is that they cut down on spontaneous trips. (With a little planning, public transit might be the more cost-effective option.)

5. There is a general belief among the public that public transit should be a public service for those who can benefit most from it: the elderly, disabled and low income. (Addressing the access needs of these groups may address the drawbacks in Item #4.)

Appendix A: The Questionnaire

Question INTRO

Hello, my name is (INSERT NAME) and I am calling from the Survey Research Center at IUPUI on behalf of the Indiana Department of Transportation. INDOT is reviewing its plans for public transportation in Indiana and needs your participation. Your answers will remain completely confidential and anonymous and I promise I am not trying to sell anything. This interview will take about ten minutes depending on your responses.

1 TO CONTINUE WITH INTERVIEW
2 IF RESPONDENT REFUSES

Question S1

S1. For this interview, my instructions are to speak with the youngest male at home right now who is at least 18 years old. May I speak with the youngest male adult in the home?

1. Youngest male comes to phone
2. Not available
9. DK/RF

Question S2

S2. May I please speak with the oldest adult female over the age of 18?

1. Oldest female comes to phone
2. Not available
9. DK/RF

Question SCR1

SCR1. First I need to verify: Is this a residence in Indiana?

1 Yes
2 No
9 DK/REF

Logic Instructions (flow only):
IF (ANS>1) SKP OUTSAMP

Question GENDER

Record Respondent Gender (BY VOICE)

IF UNSURE: I'm sorry, but I have to ask this: Are you male or female?

1 Male
2 Female

Question Q1

1. We would like to begin by asking some questions about how you use transportation facilities in Indiana. How many registered automobiles, motorcycles, and light trucks does your household have available for personal use?

OF VEHICLES: 98=DK; 99=REF

Question Q2

2. Are you currently employed outside of the home?

1 Yes
2 No
8 DK
9 REF

Logic Instructions (flow only):
IF (ANS>1) SKP Q3

Question Q2a

2a. What type of vehicle do you normally use to get to work?

NOTE: If more than one method of transportation probe for one used most often

1 Car, truck or van
2 Bus
3 Commuter Rail
4 Motorcycle
5 Bicycle
6 Walked
7 Other
8 DK
9 REF

Question Q3

3. If you were to move to a new home, how important would the availability of public transportation be in your decision to purchase a home? Would it be:

1 Very important,
2 Somewhat important,
3 Not very important or
4 Not at all important?
8 DK
9 REF

Question Q4

4. In the past 12 months, have you changed your driving patterns as a result of the change in gas prices?

1 Yes
2 No
3 R does not drive (VOLUNTEERED)
8 DK
9 REF

Logic Instructions (flow only):
IF (ANS>1) SKP Q5

Question Q4A

4A. What have you changed?

INTERVIEWER: Probe for changes in driving habits.
Accept NO MORE than two changes in driving habits as responses.

1 Answer given
8 DK
9 REF

Question Q4B

4B. At what price per gallon of gasoline did you begin to make these changes?

INTERVIEWER: PROBE FOR DOLLAR AMOUNT IF NECESSARY.

1 ENTER DOLLAR AMOUNT: $.
8 DK
9 REF

Question Q5

5. Most of my questions will be about public transportation. When I refer to "public transportation" I primarily mean bus and train service or a publicly funded mass transportation system. How often do you typically use public transportation services in your community? Would you say: (READ OPTIONS)

1 Daily
2 Weekly
3 Monthly
4 Less than once a month, or
5 Never
8 DK
9 REF

Question Q6

6. At what gas prices, would you consider using public transportation?

INTERVIEWER: PROBE FOR DOLLAR AMOUNT IF NECESSARY.

1 ENTER DOLLAR AMOUNT: $.
2 I use public transportation now
3 I would never use public transportation
4 N/A (NO PUBLIC TRANSPORTATION OPTIONS AVAILABLE)
8 DK
9 REF

Question Q7

7. I'd like you to think of the benefits of public transportation. What do you think is the one most important benefit of public transit?

INTERVIEWER: PROBE FOR ONLY ONE PHRASE

1 Answer given
8 DK
9 REF

Question Q8

8. I'd like you to think of the drawbacks of public transportation. What do you think is the biggest drawback of public transit?

INTERVIEWER: PROBE FOR ONLY ONE PHRASE

1 Answer given
8 DK
9 REF

Question Q9

9. Which level of government should be most responsible for providing public transportation?

1 Local,
2 State or
3 Federal government
8 DK
9 REF

Question NEXT1

Next I will ask you some questions about the priorities of the *(Q9 type)* government. I'm going to read a list and ask you to rate each one on a scale of 0 to 10, where 0 means "not at all important" and 10 means "extremely important." Keep in mind that I'm asking about how important or unimportant you think these priorities should be for the *(Q9 type)*government.

PRESS 1 TO CONTINUE

(QUESTIONS 10a THROUGH 10f ARE RANDOMIZED)

Question Q10A

Using a scale of 0 to 10, how important do you think each of the following transportation priorities should be to the *(Q9 type)* government in your area over the next 5 years.

10A. Building NEW roads/highways? ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q10B

Using a scale of 0 to 10, how important do you think each of the following transportation priorities should be to the *(Q9 type)* government in your area over the next 5 years.

10B. Improving bus transportation?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q10C

Using a scale of 0 to 10, how important do you think each of the following transportation priorities should be to the *(Q9 type)* government in your area over the next 5 years.

10C. Improving passenger rail transportation?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q10D

Using a scale of 0 to 10, how important do you think each of the following transportation priorities should be to the *(Q9 type)* government in your area over the next 5 years.

10D. Improving transportation services for the elderly and persons with disabilities?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q10E

Using a scale of 0 to 10, how important do you think each of the following transportation priorities should be to the *(Q9 type)* government in your area over the next 5 years.

10E. Expand roads and highways

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q10F

Using a scale of 0 to 10, how important do you think each of the following transportation priorities should be to the *(Q9 type)* government in your area over the next 5 years.

10F. Maintaining existing roads and highways?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question NEXT2

Next I am going to read you a list of six different types of people who use public transportation and I'd like you to tell me on the same scale how important it is to develop public transportation to meet their needs.

PRESS 1 TO CONTINUE

(QUESTIONS 12a THROUGH 12f ARE RANDOMIZED)

Question Q12A

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to develop public transportation to meet the needs of:
INTERVIEWER: 0 = unimportant, 10 = important

12A. People going to work?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q12B

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to develop public transportation to meet the needs of:
INTERVIEWER: 0 = unimportant, 10 = important

12B. Students?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q12C

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to develop public transportation to meet the needs of:
INTERVIEWER: 0 = unimportant, 10 = important

12C. Senior citizens?

ENTER NUMBER (0-10): 98=DK; 99=REF

Question Q12D

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to develop public transportation to meet the needs of:
INTERVIEWER: 0 = unimportant, 10 = important

12D. People who do not own cars?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q12E

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to develop public transportation to meet the needs of:
INTERVIEWER: 0 = unimportant, 10 = important

12E. Tourists?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q12F

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to develop public transportation to meet the needs of:
INTERVIEWER: 0 = unimportant, 10 = important

12F. Persons with disabilities?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q13

13. Do you think the *(Q9 type)* government needs to generate new funding for public transportation?

1 Yes
2 No
8 DK
9 REF

Logic Instructions (flow only):
IF (ANS>1) SKP NEXT4

Question NEXT3

In order to generate new funding for public transportation, the government could increase taxes, fares, or some other form of funding.

Question Q13A1

13A1. In order to generate new funding for public transportation, should there be an increase in taxes?

1 Yes
2 No
8 DK
9 REF

Question Q13A2

13A2. In order to generate new funding for public transportation, should there be an increase in fares?

1 Yes
2 No
8 DK
9 REF

Question Q13A3

13A3. In order to generate new funding for public transportation, should there be a change in some other form of funding?

1 Yes
2 No
8 DK
9 REF

Logic Instructions (flow only):
IF (ANS>1 & Q13A1>1 & Q13A2>1) SKP NEXT4
IF (ANS>1 & Q13A1>1 & Q13A2=1) SKP Q13C
IF (ANS=1 & Q13A1>1 & Q13A2>1) SKP Q13D
IF (ANS=1 & Q13A1>1 & Q13A2=1) SKP Q13C

(QUESTIONS 13B1 THROUGH 13B4 ARE RANDOMIZED)

Question Q13B1

13B. In order to generate new funding for public transportation, please tell me if you would support or oppose an increase in:

1. Gas tax?

1 Support
2 Oppose
8 DK
9 REF

Question Q13B2

13B. In order to generate new funding for public transportation, please tell me if you would support or oppose an increase in:

2. Property tax?

1 Support
2 Oppose
8 DK
9 REF

Question Q13B3

13B. In order to generate new funding for public transportation, please tell me if you would support or oppose an increase in:

3. Sales tax?

1 Support
2 Oppose
8 DK
9 REF

Question Q13B4

13B. In order to generate new funding for public transportation, please tell me if you would support or oppose an increase in:

4. Income tax?

1 Support
2 Oppose
8 DK
9 REF

Question Q13C

13C. What would you say the fare should go up to?

INTERVIEWER: PROBE FOR DOLLAR AMOUNT IF NECESSARY.

1 ENTER DOLLAR AMOUNT: $.
2 Respondent does not know current fare
8 DK
9 REF

Logic Instructions (flow only):
IF (Q13A2 != 1 & Q13A3 = 1) SKP Q13D
IF (Q13A2 != 1 & Q13A3>1) SKP NEXT4
IF (ANS<>1) SKP Q13D

Question Q13D

13D. What other forms of funding should the government consider?

1 Answer given
8 DK
9 REF

Logic Instructions (flow only):
IF (Q13A3 != 1) SKP NEXT4

Question NEXT4

There are also six general priorities for transportation that I would like you to rate using the same scale as before.

PRESS 1 TO CONTINUE

(QUESTIONS 14a THROUGH 14f ARE RANDOMIZED)

Question Q14A

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to:

14A. Reduce traffic congestion?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q14B

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to:

14B. Improve bus services?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q14C

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to:

14C. Improve passenger rail services?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q14D

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to:

14D. Make it easier for low income, elderly, and disabled persons to get around?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q14E

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to:

14E. Make it easier for pedestrians and bicyclists to get around?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q14F

On a scale of 0 to 10, please tell me how unimportant to important is it to you for INDOT to:

14F. Improve the safety of the traveling public?

ENTER NUMBER (0-10):

98=DK; 99=REF

Question Q15

15. The fares paid by those who use public transportation are never enough to pay the total cost of the mass transit system. Therefore the government must subsidize each rider's trip. On a scale of 0 to 10, where zero is no support and ten is very strong support, how strongly would you support the development of mass transit in your area given that the government must subsidize each rider's trip?

ENTER NUMBER (0-10): 98=DK; 99=REF

Logic Instructions (flow only):
IF (Q2>1) SKP Q18

Question Q17

17. Are you employed:

1 Full time or
2 Part time?
8 DK
9 REF

Logic Instructions (flow only):
IF (ANS>2) SKP Q18

Question Q17A

17A. How many minutes, one-way, does it take you to travel from your home to work on an average day?

INTERVIEWER: PROBE FOR ONE NUMBER, NOT A RANGE
IF R RESPONDS WITH HOURS, MULTIPLY # OF HOURS BY 60 TO GET MINUTES

MINUTES:

998=DK; 999=REF

Question Q17B

17B. About how many miles do you travel from home to work?

MILES:

998=DK; 999=REF

Question Q17C

17C. Do you pay for parking where you work?

1 Yes
2 No
8 DK
9 REF

Logic Instructions (flow only):
IF (ANS>1) SKP Q18

Question Q17D

17D. How much do you pay to park?

PROBE: WE ARE ASKING PER DAY.

1 ENTER DOLLAR AMOUNT: $.
8 DK
9 REF

Question Q18

18. What county do you live in?

LIST COUNTIES

Question Q19

19. If you were to move to a new home, how important would the availability of public transportation be in your decision to purchase a home? Would it be:

1 Very important,
2 Somewhat important,
3 Not very important or
4 Not at all important?
8 DK
9 REF

Question Q20

20. What is your age?

AGE:

97= 97 OR ABOVE
98=DK; 99=REF

Logic Instructions (flow only):
IF (ANS<98) SKP Q21

Question Q20A

20A. Are you under 35 years old, 35-50, or over 50?

1. Under 35 (18-34)
2. 35-50
3. Over 50
9. DK/REF

Question Q21

21. Which one or more of the following would you say is your race: READ ITEMS 1-5

1 White
2 Black or African American
3 Hispanic
4 Asian, or
5 Something Else?
8 DK
9 REF

Question Q22

22. One important part of this study will involve looking at the differences and similarities of different communities throughout Indiana. For that reason, it would be very helpful if you would tell me, what is your Zip Code?

ZIP CODE: 98=DK; 99=REF

Question Q23

23. And last year before taxes what was your total household income? Would you say... (READ CHOICES)

1 Under $15,000
2 $15 to $25,000
3 $25 to $50,000
4 $50 to $75,000
5 $75 to $100,000
6 $100,000 or more
8 DK
9 REF

Logic Instructions (flow only):
SKP THATWAS

Question THATWAS

Those are all the questions I have for you. Thank you for your cooperation.

Appendix K
Indiana Mass Transit Studies
PL 203-2007

Indiana Department of Transportation
December 2008

Appendix K
Public Opinion Poll Supplementary Information

Not recommended for print – 152 pages

1. How many registered automobiles, motorcycles, and light trucks does your household have available for personal use?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	42	2.5	2.5	2.5
	1	388	22.9	23.0	25.5
	2	690	40.7	40.8	66.3
	3	342	20.2	20.2	86.5
	4+	227	13.4	13.5	100.0
	Total	1689	99.7	100.0	
Missing	99	4	.3		
Total		1693	100.0		

2. Are you currently employed outside of the home?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	1051	62.1	62.1	62.1
	2 No	642	37.9	37.9	100.0
	Total	1693	100.0	100.0	

2X. What type of vehicle do you normally use to get to work?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Car, truck or van	679	40.1	95.9	95.9
	2 Bus	8	.5	1.1	97.1
	4 Motorcycle	2	.1	.3	97.4
	5 Bicycle	1	.1	.2	97.5
	6 Walked	7	.4	.9	98.5
	7 Other	11	.6	1.5	100.0
	Total	708	41.8	100.0	
Missing	System	985	58.2		
Total		1693	100.0		

2A. How did you normally get to work LAST WEEK?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Car, truck or van	314	18.5	91.9	91.9
	3 Commuter Rail	4	.2	1.2	93.1
	4 Motorcycle	5	.3	1.4	94.5
	5 Bicycle	3	.2	.9	95.4
	6 Walked	6	.4	1.9	97.3
	7 Other	9	.6	2.7	100.0
	Total	341	20.2	100.0	
Missing	8 DK	2	.1		

2A. How did you normally get to work LAST WEEK?

		Frequency	Percent	Valid Percent	Cumulative Percent
Missing	System	1349	79.7		
	Total	1352	79.8		
Total		1693	100.0		

3X. If you were to move to a new home, how important would the availability of public transportation be in your decision

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Very important,	219	13.0	19.5	19.5
	2 Somewhat important,	228	13.5	20.3	39.8
	3 Not very important or	234	13.8	20.8	60.6
	4 Not at all important?	443	26.2	39.4	100.0
	Total	1125	66.4	100.0	
Missing	8 DK	11	.7		
	9 REF	2	.1		
	System	555	32.8		
	Total	568	33.6		
Total		1693	100.0		

3. Other than going to work, how did you usually travel to places to far to walk LAST WEEK?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Car, truck or van	518	30.6	93.9	93.9
	2 Bus	10	.6	1.8	95.6
	3 Commuter Rail	2	.1	.3	96.0
	4 Motorcycle	5	.3	1.0	97.0
	5 Bicycle	5	.3	.9	97.9
	6 Walked	3	.2	.6	98.4
	7 Other	9	.5	1.6	100.0
	Total	551	32.6	100.0	
Missing	8 DK	3	.2		
	9 REF	1	.0		
	System	1138	67.2		
	Total	1142	67.4		
Total		1693	100.0		

4. In the past 12 months, have you changed your driving patterns as a result of the change in gas prices?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	1011	59.7	59.8	59.8
	2 No	638	37.7	37.7	97.5

4. In the past 12 months, have you changed your driving patterns as a result of the change in gas prices?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3 R does not drive (VOLUNTEERED)	42	2.5	2.5	100.0
	Total	1692	99.9	100.0	
Missing	8 DK	1	.1		
Total		1693	100.0		

4B. At what price per gallon of gasoline did you begin to make these changes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<$3.00	99	5.8	10.4	10.4
	$3.00-3.49	352	20.8	37.0	47.4
	$3.50-3.89	294	17.4	31.0	78.4
	$3.90-3.99	30	1.8	3.2	81.6
	$4.00+	175	10.3	18.4	100.0
	Total	950	56.1	100.0	
Missing	99	743	43.9		
Total		1693	100.0		

5. How often do you typically use public transportation services in your community?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Daily	46	2.7	2.7	2.7
	2 Weekly	39	2.3	2.3	5.0
	3 Monthly	31	1.8	1.8	6.8
	4 Less than once a month, or	163	9.7	9.7	16.5
	5 Never	1414	83.5	83.5	100.0
	Total	1693	100.0	100.0	

6. At what gas prices, would you consider using public transportation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<$4.00	67	4.0	16.2	16.2
	$4.00-4.49	74	4.4	18.0	34.1
	$4.50-4.99	55	3.3	13.4	47.5
	$5.00-5.99	130	7.7	31.3	78.8
	$6.00+	88	5.2	21.2	100.0
	Total	414	24.5	100.0	
Missing	99	1279	75.5		
Total		1693	100.0		

9. Which level of government should be most responsible for providing public transportation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Local,	716	42.3	46.1	46.1
	2 State or	664	39.2	42.7	88.8
	3 Federal government	173	10.2	11.2	100.0
	Total	1553	91.7	100.0	
Missing	8 DK	131	7.7		
	9 REF	9	.5		
	Total	140	8.3		
Total		1693	100.0		

10A. Building NEW roads/highways?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	97	5.7	5.8	5.8
	1	44	2.6	2.6	8.4
	2	99	5.9	5.9	14.2
	3	133	7.8	7.9	22.1
	4	108	6.4	6.4	28.6
	5	322	19.0	19.1	47.7
	6	136	8.0	8.1	55.8
	7	154	9.1	9.2	64.9
	8	227	13.4	13.5	78.4
	9	75	4.4	4.4	82.8
	10	289	17.1	17.2	100.0
	Total	1683	99.4	100.0	
Missing	System	10	.6		
Total		1693	100.0		

10B. Improving bus transportation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	94	5.5	5.7	5.7
	1	24	1.4	1.5	7.2
	2	50	3.0	3.0	10.2
	3	42	2.5	2.6	12.8
	4	52	3.1	3.1	15.9
	5	272	16.0	16.5	32.4
	6	157	9.3	9.6	42.0
	7	221	13.0	13.4	55.4
	8	243	14.3	14.8	70.2

10B. Improving bus transportation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	9	101	5.9	6.1	76.3
	10	389	23.0	23.7	100.0
	Total	1644	97.1	100.0	
Missing	System	49	2.9		
Total		1693	100.0		

10C. Improving passenger rail transportation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	168	10.0	10.3	10.3
	1	31	1.8	1.9	12.2
	2	66	3.9	4.0	16.2
	3	83	4.9	5.1	21.3
	4	68	4.0	4.2	25.4
	5	271	16.0	16.6	42.0
	6	128	7.6	7.8	49.8
	7	149	8.8	9.1	58.9
	8	228	13.5	13.9	72.8
	9	85	5.0	5.2	78.1
	10	359	21.2	21.9	100.0
	Total	1638	96.7	100.0	
Missing	System	55	3.3		
Total		1693	100.0		

10D. Improving transportation services for the elderly and persons with disabilities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	11	.7	.7	.7
	1	7	.4	.4	1.1
	2	7	.4	.4	1.5
	3	28	1.7	1.7	3.2
	4	32	1.9	1.9	5.1
	5	164	9.7	9.8	15.0
	6	71	4.2	4.3	19.3
	7	159	9.4	9.6	28.8
	8	300	17.7	18.1	46.9
	9	180	10.6	10.8	57.7
	10	703	41.5	42.3	100.0
	Total	1662	98.2	100.0	

10D. Improving transportation services for the elderly and persons with disabilities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Missing	System	31	1.8		
Total		1693	100.0		

10E. Adding capacity to existing roads and highways, such as adding more lanes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	35	2.1	6.5	6.5
	1	8	.5	1.5	8.0
	2	24	1.4	4.3	12.4
	3	54	3.2	9.9	22.3
	4	31	1.8	5.8	28.0
	5	85	5.0	15.6	43.6
	6	47	2.8	8.6	52.2
	7	64	3.8	11.8	64.1
	8	83	4.9	15.2	79.3
	9	25	1.5	4.6	83.9
	10	88	5.2	16.1	100.0
	Total	544	32.1	100.0	
Missing	System	1149	67.9		
Total		1693	100.0		

10EX. Expand roads and highways

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	47	2.8	4.2	4.2
	1	20	1.2	1.8	6.0
	2	64	3.8	5.7	11.6
	3	59	3.5	5.2	16.9
	4	57	3.4	5.1	21.9
	5	242	14.3	21.4	43.3
	6	81	4.8	7.2	50.5
	7	151	8.9	13.3	63.8
	8	163	9.6	14.4	78.2
	9	68	4.0	6.0	84.2
	10	179	10.6	15.8	100.0
	Total	1131	66.8	100.0	
Missing	System	562	33.2		
Total		1693	100.0		

10F. Maintaining existing roads and highways?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	.2	.2	.2
	1	1	.1	.1	.3
	2	6	.3	.4	.6
	3	8	.4	.4	1.1
	4	10	.6	.6	1.6
	5	100	5.9	5.9	7.6
	6	42	2.5	2.5	10.1
	7	141	8.3	8.4	18.4
	8	351	20.7	20.8	39.3
	9	201	11.9	11.9	51.2
	10	822	48.6	48.8	100.0
	Total	1684	99.5	100.0	
Missing	System	9	.5		
Total		1693	100.0		

10G. Expanding bicycle trails & pedestrian walkways?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	37	2.2	6.8	6.8
	1	11	.6	1.9	8.7
	2	32	1.9	5.8	14.5
	3	25	1.5	4.6	19.0
	4	32	1.9	5.8	24.8
	5	84	5.0	15.2	40.0
	6	53	3.1	9.5	49.6
	7	55	3.3	10.0	59.6
	8	90	5.3	16.3	75.9
	9	27	1.6	4.8	80.7
	10	107	6.3	19.3	100.0
	Total	553	32.7	100.0	
Missing	System	1140	67.3		
Total		1693	100.0		

10H. Supporting economic development?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	6	.3	1.1	1.1
	1	1	.0	.1	1.2
	2	4	.2	.7	1.9

10H. Supporting economic development?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	12	.7	2.1	4.0
	4	21	1.2	3.8	7.9
	5	57	3.3	10.5	18.3
	6	17	1.0	3.0	21.4
	7	67	3.9	12.3	33.7
	8	97	5.7	17.9	51.6
	9	62	3.7	11.4	63.0
	10	200	11.8	37.0	100.0
	Total	542	32.0	100.0	
Missing	System	1151	68.0		
Total		1693	100.0		

11. Which transportation priority from the list I just read do you think is MOST important for the government'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Building NEW roads/highways	26	1.5	4.7	4.7
	2 Improving bus transportation	71	4.2	13.0	17.7
	3 Improving passenger rail transportation	50	3.0	9.3	27.0
	4 Improving transportation services for the elderly/persons	87	5.1	15.9	42.9
	5 Adding more lanes to roads and highways in order to reduce	34	2.0	6.3	49.2
	6 Maintaining existing roads and highways	191	11.3	35.1	84.3
	7 Expanding bicycle trails & pedestrian walkways	14	.8	2.5	86.7
	8 Supporting economic development	72	4.3	13.3	100.0
	Total	545	32.2	100.0	
Missing	98 DK	10	.6		
	System	1138	67.2		
	Total	1148	67.8		
Total		1693	100.0		

12A. People going to work?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	22	1.3	1.3	1.3
	1	6	.4	.4	1.7

12A. People going to work?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	11	.7	.7	2.4
	3	14	.8	.8	3.2
	4	26	1.5	1.5	4.7
	5	139	8.2	8.3	12.9
	6	99	5.9	5.9	18.8
	7	191	11.3	11.4	30.2
	8	349	20.6	20.7	50.9
	9	179	10.5	10.6	61.5
	10	649	38.4	38.5	100.0
	Total	1686	99.6	100.0	
Missing	System	7	.4		
Total		1693	100.0		

12B. Students?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	29	1.7	1.7	1.7
	1	10	.6	.6	2.3
	2	18	1.1	1.1	3.4
	3	33	1.9	2.0	5.4
	4	41	2.4	2.4	7.8
	5	169	10.0	10.1	17.9
	6	138	8.1	8.2	26.1
	7	189	11.1	11.2	37.3
	8	328	19.4	19.6	56.9
	9	150	8.9	8.9	65.8
	10	573	33.8	34.2	100.0
	Total	1676	99.0	100.0	
Missing	System	17	1.0		
Total		1693	100.0		

12C. Senior citizens?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	15	.9	.9	.9
	1	1	.1	.1	1.0
	2	8	.5	.5	1.4
	3	13	.8	.8	2.2
	4	17	1.0	1.0	3.2

12C. Senior citizens?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	87	5.2	5.2	8.4
	6	66	3.9	3.9	12.3
	7	157	9.3	9.3	21.6
	8	324	19.1	19.2	40.8
	9	194	11.4	11.5	52.3
	10	805	47.5	47.7	100.0
	Total	1687	99.6	100.0	
Missing	System	6	.4		
Total		1693	100.0		

12D. People who do not own cars?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	40	2.3	2.4	2.4
	1	11	.6	.6	3.0
	2	13	.8	.8	3.7
	3	35	2.1	2.1	5.8
	4	37	2.2	2.2	8.0
	5	133	7.8	7.9	15.9
	6	81	4.8	4.8	20.7
	7	167	9.9	9.9	30.6
	8	280	16.5	16.6	47.3
	9	166	9.8	9.9	57.1
	10	722	42.6	42.9	100.0
	Total	1683	99.4	100.0	
Missing	System	10	.6		
Total		1693	100.0		

12E. Tourists?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	98	5.8	5.9	5.9
	1	41	2.4	2.4	8.3
	2	79	4.6	4.7	13.0
	3	135	8.0	8.1	21.1
	4	106	6.3	6.4	27.5
	5	386	22.8	23.1	50.5
	6	153	9.0	9.2	59.7
	7	209	12.3	12.5	72.2

12E. Tourists?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8	216	12.8	12.9	85.1
	9	53	3.2	3.2	88.3
	10	195	11.5	11.7	100.0
	Total	1671	98.7	100.0	
Missing	System	22	1.3		
Total		1693	100.0		

12F. Persons with disabilties?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	14	.8	.8	.8
	1	3	.2	.2	1.0
	2	6	.3	.3	1.3
	3	13	.8	.8	2.1
	4	16	1.0	1.0	3.1
	5	64	3.8	3.8	6.9
	6	64	3.8	3.8	10.7
	7	126	7.4	7.5	18.2
	8	284	16.8	16.9	35.1
	9	173	10.2	10.3	45.3
	10	920	54.4	54.7	100.0
	Total	1684	99.4	100.0	
Missing	System	9	.6		
Total		1693	100.0		

13. Do you think the government needs to generate new funding for public transportation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	1130	66.7	72.6	72.6
	2 No	427	25.2	27.4	100.0
	Total	1556	91.9	100.0	
Missing	8 DK	134	7.9		
	9 REF	3	.2		
	Total	137	8.1		
Total		1693	100.0		

13A1. In order to generate new funding for public transportation, should there be an increase in taxes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	409	24.2	37.1	37.1

13A1. In order to generate new funding for public transportation, should there be an increase in taxes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2 No	694	41.0	62.9	100.0
	Total	1102	65.1	100.0	
Missing	8 DK	27	1.6		
	System	563	33.3		
	Total	591	34.9		
Total		1693	100.0		

13A2. In order to generate new funding for public transportation, should there be an increase in fares?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	661	39.0	62.0	62.0
	2 No	405	23.9	38.0	100.0
	Total	1066	63.0	100.0	
Missing	8 DK	63	3.7		
	9 REF	0	.0		
	System	563	33.3		
	Total	627	37.0		
Total		1693	100.0		

13A3. In order to generate new funding for public transportation, should there be a change in some other form of funding?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	799	47.2	81.5	81.5
	2 No	182	10.7	18.5	100.0
	Total	981	57.9	100.0	
Missing	8 DK	149	8.8		
	System	563	33.3		
	Total	712	42.1		
Total		1693	100.0		

13B1. Support or oppose an increase in Gas Tax?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Support	137	8.1	33.7	33.7
	2 Oppose	270	15.9	66.3	100.0
	Total	407	24.0	100.0	
Missing	8 DK	2	.1		
	System	1284	75.8		
	Total	1286	76.0		
Total		1693	100.0		

13B2. Support or oppose an increase in Property Tax?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Support	110	6.5	27.3	27.3
	2 Oppose	294	17.3	72.7	100.0
	Total	404	23.9	100.0	
Missing	8 DK	5	.3		
	System	1284	75.8		
	Total	1289	76.1		
Total		1693	100.0		

13B3. Support or oppose an increase in Sales Tax?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Support	259	15.3	64.1	64.1
	2 Oppose	145	8.6	35.9	100.0
	Total	405	23.9	100.0	
Missing	8 DK	4	.2		
	System	1284	75.8		
	Total	1288	76.1		
Total		1693	100.0		

13B4. Support or oppose an increase in Income Tax?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Support	208	12.3	52.6	52.6
	2 Oppose	188	11.1	47.4	100.0
	Total	396	23.4	100.0	
Missing	8 DK	11	.7		
	9 REF	2	.1		
	System	1284	75.8		
	Total	1297	76.6		
Total		1693	100.0		

13C. What would you say the fare should go up to?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<$1.00	14	.8	15.2	15.2
	$1.00	16	.9	17.1	32.4
	$1.01-1.99	17	1.0	18.1	50.4
	$2.00	26	1.5	27.9	78.4
	$2.00-2.99	5	.3	5.7	84.1
	$3.00+	15	.9	15.9	100.0

13C. What would you say the fare should go up to?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Total	94	5.5	100.0	
Missing	99	1599	94.5		
Total		1693	100.0		

13D. What other forms of funding should the government consider?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Answer given	471	27.8	100.0	100.0
Missing	8 DK	327	19.3		
	9 REF	1	.0		
	System	894	52.8		
	Total	1222	72.2		
Total		1693	100.0		

14A. Reduce traffic congestion?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	41	2.4	2.5	2.5
	1	3	.2	.2	2.6
	2	40	2.4	2.4	5.0
	3	44	2.6	2.6	7.7
	4	39	2.3	2.3	10.0
	5	211	12.5	12.6	22.6
	6	108	6.4	6.5	29.1
	7	213	12.6	12.7	41.8
	8	327	19.3	19.5	61.3
	9	143	8.4	8.5	69.9
	10	504	29.8	30.1	100.0
	Total	1673	98.8	100.0	
Missing	System	20	1.2		
Total		1693	100.0		

14B. Improve bus services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	84	5.0	5.1	5.1
	1	15	.9	.9	6.0
	2	37	2.2	2.2	8.2
	3	57	3.3	3.4	11.6
	4	43	2.5	2.6	14.2

14B. Improve bus services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	225	13.3	13.6	27.9
	6	121	7.2	7.4	35.2
	7	198	11.7	12.0	47.2
	8	311	18.4	18.9	66.1
	9	107	6.3	6.5	72.5
	10	453	26.8	27.5	100.0
	Total	1651	97.5	100.0	
Missing	System	42	2.5		
Total		1693	100.0		

14C. Improve passenger rail services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	148	8.7	9.0	9.0
	1	15	.9	.9	9.9
	2	87	5.1	5.3	15.2
	3	61	3.6	3.7	18.9
	4	88	5.2	5.4	24.3
	5	240	14.2	14.7	39.0
	6	117	6.9	7.2	46.2
	7	180	10.6	11.0	57.2
	8	248	14.6	15.1	72.3
	9	81	4.8	4.9	77.3
	10	372	22.0	22.7	100.0
	Total	1635	96.6	100.0	
Missing	System	58	3.4		
Total		1693	100.0		

14D. Make it easier for low income, elderly, and disabled persons to get around?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	15	.9	.9	.9
	1	1	.1	.1	.9
	2	12	.7	.7	1.7
	3	13	.7	.7	2.4
	4	25	1.5	1.5	3.9
	5	120	7.1	7.1	11.0
	6	75	4.5	4.5	15.4
	7	127	7.5	7.5	23.0

14D. Make it easier for low income, elderly, and disabled persons to get around?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8	305	18.0	18.1	41.0
	9	169	10.0	10.0	51.0
	10	826	48.8	49.0	100.0
	Total	1687	99.6	100.0	
Missing	System	6	.4		
Total		1693	100.0		

14E. Make it easier for pedestrians and bicyclists to get around?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	54	3.2	3.2	3.2
	1	14	.8	.8	4.1
	2	45	2.7	2.7	6.8
	3	46	2.7	2.7	9.5
	4	62	3.6	3.7	13.2
	5	216	12.7	12.8	26.0
	6	145	8.5	8.6	34.6
	7	209	12.3	12.4	47.0
	8	327	19.3	19.4	66.4
	9	97	5.7	5.7	72.1
	10	469	27.7	27.9	100.0
	Total	1684	99.5	100.0	
Missing	System	9	.5		
Total		1693	100.0		

14F. Improve the safety of the traveling public?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	22	1.3	1.3	1.3
	1	10	.6	.6	1.9
	2	25	1.5	1.5	3.4
	3	18	1.1	1.1	4.4
	4	42	2.5	2.5	6.9
	5	130	7.6	7.7	14.6
	6	73	4.3	4.3	19.0
	7	160	9.4	9.5	28.5
	8	281	16.6	16.7	45.2
	9	178	10.5	10.6	55.8
	10	742	43.8	44.2	100.0

14F. Improve the safety of the traveling public?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Total	1680	99.2	100.0	
Missing	System	13	.8		
Total		1693	100.0		

15. How strongly would you support the development of mass transit in your area given that the government must subsidize

		Frequency	Percent
Valid	0	136	8.0
	1	22	1.3
	2	60	3.5
	3	72	4.2
	4	96	5.7
	5	293	17.3
	6	139	8.2
	7	214	12.7
	8	251	14.8
	9	62	3.6
	10	298	17.6
	Total	1644	97.1
Missing	System	49	2.9
Total		1693	100.0

15. How strongly would you support the development of mass transit in your area given that the government must subsidize

		Valid Percent	Cumulative Percent
Valid	0	8.3	8.3
	1	1.4	9.6
	2	3.6	13.3
	3	4.4	17.7
	4	5.8	23.5
	5	17.8	41.3
	6	8.5	49.8
	7	13.0	62.8
	8	15.3	78.1
	9	3.7	81.9
	10	18.1	100.0
	Total	100.0	
Missing	System		
Total			

17. Are you employed:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Full time or	854	50.5	81.9	81.9
	2 Part time?	189	11.2	18.1	100.0
	Total	1043	61.6	100.0	
Missing	8 DK	7	.4		
	9 REF	1	.0		
	System	642	37.9		
	Total	650	38.4		
Total		1693	100.0		

17A. How many minutes, one-way, does it take you to travel from your home to work on an average day?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5 or less	304	18.0	29.6	29.6
	6-10	68	4.0	6.6	36.2
	11-15	117	6.9	11.4	47.6
	16-20	142	8.4	13.8	61.4
	21-25	95	5.6	9.3	70.7
	26-30	98	5.8	9.6	80.2
	31+	203	12.0	19.8	100.0
	Total	1027	60.7	100.0	
Missing	99	666	39.3		
Total		1693	100.0		

17B. About how many miles do you travel from home to work?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	219	12.9	31.0	31.0
	11-15	145	8.6	20.6	51.6
	16-20	108	6.4	15.3	66.9
	21-25	67	3.9	9.5	76.4
	26-30	26	1.5	3.7	80.0
	31+	141	8.3	20.0	100.0
	Total	705	41.7	100.0	
Missing	99	988	58.3		
Total		1693	100.0		

17C. Do you pay for parking where you work?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	66	3.9	6.3	6.3

17C. Do you pay for parking where you work?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2 No	977	57.7	93.7	100.0
	Total	1043	61.6	100.0	
Missing	8 DK	0	.0		
	System	650	38.4		
	Total	650	38.4		
Total		1693	100.0		

17D. How much do you pay to park? .

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<$1.00	8	.5	14.2	14.2
	$1.00-1.99	23	1.4	39.5	53.7
	$2.00-2.99	6	.4	11.0	64.6
	$3.00+	21	1.2	35.4	100.0
	Total	59	3.5	100.0	
Missing	99	1634	96.5		
Total		1693	100.0		

18. What county do you live in?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Adams	4	.2	.2	.2
	Allen	99	5.8	5.9	6.1
	Bartholomew	26	1.5	1.5	7.6
	Benton	4	.3	.3	7.9
	Blackford	12	.7	.7	8.6
	Boone	13	.8	.8	9.4
	Brown	5	.3	.3	9.7
	Carroll	4	.2	.2	9.9
	Cass	9	.6	.6	10.4
	Clark	25	1.5	1.5	11.9
	Clay	2	.1	.1	12.1
	Clinton	6	.3	.3	12.4
	Crawford	2	.1	.1	12.5
	Daviess	8	.5	.5	13.0
	Dearborn	11	.7	.7	13.6
	Decatur	4	.3	.3	13.9
	Dekalb	13	.7	.7	14.7
	Delaware	29	1.7	1.7	16.3

18. What county do you live in?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Dubois	12	.7	.7	17.0
	Elkhart	65	3.8	3.8	20.9
	Fayette	6	.3	.3	21.2
	Floyd	21	1.2	1.2	22.4
	Fountain	7	.4	.4	22.8
	Franklin	6	.3	.3	23.2
	Fulton	9	.5	.5	23.7
	Gibson	4	.2	.2	23.9
	Grant	12	.7	.7	24.6
	Greene	8	.5	.5	25.1
	Hamilton	63	3.7	3.7	28.9
	Hancock	22	1.3	1.3	30.2
	Harrison	9	.6	.6	30.7
	Hendricks	46	2.7	2.7	33.4
	Henry	11	.7	.7	34.1
	Howard	26	1.6	1.6	35.6
	Huntington	10	.6	.6	36.3
	Jackson	13	.8	.8	37.0
	Jasper	5	.3	.3	37.3
	Jay	6	.3	.3	37.7
	Jefferson	6	.4	.4	38.0
	Jennings	3	.2	.2	38.2
	Johnson	25	1.5	1.5	39.6
	Knox	10	.6	.6	40.2
	Kosciusko	14	.9	.9	41.1
	Lagrange	4	.2	.2	41.3
	Lake	121	7.2	7.2	48.5
	Laporte	23	1.4	1.4	49.8
	Lawrence	14	.8	.8	50.6
	Madison	32	1.9	1.9	52.5
	Marion	242	14.3	14.3	66.9
	Marshall	13	.8	.8	67.7
	Martin	1	.1	.1	67.7
	Miami	15	.9	.9	68.6
	Monroe	32	1.9	1.9	70.5
	Montgomery	12	.7	.7	71.2
	Morgan	15	.9	.9	72.1
	Newton	4	.2	.2	72.3
	Noble	12	.7	.7	73.0
	Ohio	3	.2	.2	73.1
	Orange	9	.6	.6	73.7
	Owen	5	.3	.3	74.0

18. What county do you live in?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Parke	6	.4	.4	74.3
	Perry	4	.2	.2	74.6
	Pike	6	.3	.3	74.9
	Porter	40	2.4	2.4	77.3
	Posey	6	.3	.3	77.6
	Pulaski	3	.2	.2	77.8
	Putnam	11	.7	.7	78.5
	Randolph	7	.4	.4	78.9
	Ripley	10	.6	.6	79.5
	Rush	5	.3	.3	79.8
	St. Joseph	78	4.6	4.6	84.4
	Scott	4	.2	.2	84.6
	Shelby	6	.3	.3	84.9
	Spencer	4	.2	.2	85.2
	Starke	7	.4	.4	85.6
	Steuben	5	.3	.3	85.9
	Sullivan	7	.4	.4	86.3
	Switzerland	4	.2	.2	86.6
	Tippecanoe	40	2.4	2.4	88.9
	Tipton	6	.4	.4	89.3
	Union	4	.2	.2	89.6
	Vanderburgh	47	2.8	2.8	92.3
	Vermillion	5	.3	.3	92.6
	Vigo	29	1.7	1.7	94.3
	Wabash	9	.5	.5	94.8
	Warren	3	.2	.2	95.0
	Warrick	19	1.1	1.1	96.1
	Washington	11	.7	.7	96.8
	Wayne	21	1.2	1.2	98.1
	Wells	8	.5	.5	98.5
	White	5	.3	.3	98.8
	Whitley	10	.6	.6	99.4
	Another State	1	.0	.0	99.5
	Other (SP)	9	.5	.5	100.0
	Total	1690	99.8	100.0	
Missing	REFUSE	3	.2		
Total		1693	100.0		

19. If you were to move to a new home, how important would the availability of public transportation be in your decision'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Very important,	73	4.3	13.3	13.3
	2 Somewhat important,	148	8.8	27.0	40.3
	3 Not very important or	151	8.9	27.5	67.8
	4 Not at all important?	177	10.5	32.2	100.0
	Total	549	32.5	100.0	
Missing	8 DK	5	.3		
	9 REF	1	.1		
	System	1138	67.2		
	Total	1144	67.5		
Total		1693	100.0		

Age - Recoded

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-34	435	25.7	25.7	25.7
	35-49	575	33.9	34.0	59.8
	50+	680	40.2	40.2	100.0
	Total	1689	99.8	100.0	
Missing	99	4	.2		
Total		1693	100.0		

Race - Recoded

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White	1478	87.3	89.0	89.0
	Black	104	6.2	6.3	95.3
	Latino/a	38	2.3	2.3	97.5
	Other	41	2.4	2.5	100.0
	Total	1661	98.1	100.0	
Missing	99	32	1.9		
Total		1693	100.0		

22. Zip Code

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	46035	0	.0	.1	.1
	46041	1	.1	.2	.2
	46050	1	.0	.1	.4
	46072	3	.2	.5	.9
	46120	0	.0	.1	.9

22. Zip Code

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	46121	1	.0	.1	1.1
	46135	1	.0	.1	1.2
	46172	1	.1	.2	1.4
	46232	1	.1	.2	1.5
	46250	1	.1	.2	1.8
	46303	11	.6	2.0	3.8
	46304	2	.1	.4	4.2
	46307	14	.8	2.5	6.7
	46310	2	.1	.4	7.0
	46311	3	.2	.6	7.7
	46312	3	.2	.5	8.2
	46319	1	.1	.2	8.4
	46321	11	.6	2.0	10.4
	46322	6	.4	1.1	11.6
	46323	3	.2	.5	12.1
	46324	3	.2	.6	12.6
	46341	3	.2	.6	13.2
	46342	12	.7	2.1	15.3
	46347	4	.2	.8	16.1
	46349	2	.1	.4	16.5
	46350	11	.6	2.0	18.5
	46356	9	.6	1.7	20.2
	46360	6	.3	1.1	21.3
	46366	1	.0	.1	21.4
	46368	11	.7	2.0	23.5
	46373	5	.3	1.0	24.4
	46375	4	.2	.7	25.1
	46383	4	.2	.7	25.7
	46385	15	.9	2.7	28.5
	46390	1	.1	.2	28.7
	46391	2	.1	.4	29.1
	46394	1	.0	.1	29.2
	46403	10	.6	1.9	31.1
	46404	4	.2	.7	31.9
	46406	4	.2	.7	32.6
	46407	1	.1	.2	32.7
	46408	2	.1	.4	33.2
	46410	10	.6	1.9	35.1
	46432	1	.0	.1	35.2
	46506	4	.2	.7	35.9
	46507	1	.1	.2	36.1
	46510	2	.1	.3	36.5

22. Zip Code

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	46514	11	.7	2.1	38.6
	46516	12	.7	2.2	40.7
	46517	4	.2	.7	41.4
	46524	2	.1	.4	41.8
	46526	7	.4	1.3	43.2
	46528	13	.8	2.4	45.5
	46530	6	.3	1.1	46.6
	46534	6	.3	1.0	47.6
	46540	4	.2	.7	48.3
	46544	9	.6	1.7	50.0
	46545	8	.5	1.4	51.4
	46550	5	.3	.9	52.3
	46553	4	.3	.8	53.1
	46561	3	.2	.5	53.7
	46562	3	.2	.6	54.2
	46563	10	.6	1.8	56.1
	46567	3	.2	.6	56.6
	46570	1	.1	.2	56.8
	46571	1	.0	.1	57.0
	46573	1	.1	.2	57.2
	46574	1	.0	.1	57.3
	46580	3	.2	.5	57.8
	46590	3	.2	.6	58.4
	46601	1	.1	.2	58.6
	46613	1	.1	.2	58.8
	46614	18	1.0	3.2	62.0
	46615	4	.3	.8	62.8
	46616	1	.1	.2	63.0
	46617	1	.1	.2	63.2
	46619	5	.3	.9	64.1
	46628	8	.4	1.4	65.5
	46635	7	.4	1.3	66.8
	46637	3	.2	.6	67.3
	46701	2	.1	.3	67.6
	46703	1	.1	.2	67.8
	46706	0	.0	.1	67.9
	46714	1	.0	.1	68.0
	46721	1	.0	.1	68.2
	46723	2	.1	.4	68.6
	46725	1	.0	.1	68.7
	46738	1	.0	.1	68.8
	46750	2	.1	.3	69.1

22. Zip Code

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	46755	2	.1	.3	69.5
	46772	1	.0	.1	69.6
	46774	1	.1	.2	69.8
	46781	0	.0	.1	69.8
	46783	2	.1	.3	70.2
	46784	2	.1	.3	70.5
	46785	1	.1	.2	70.7
	46787	1	.1	.2	70.9
	46797	0	.0	.1	71.0
	46802	1	.1	.3	71.2
	46803	2	.1	.3	71.5
	46804	4	.2	.7	72.2
	46805	2	.1	.4	72.6
	46806	9	.5	1.6	74.3
	46807	1	.1	.2	74.5
	46808	2	.1	.4	74.9
	46814	1	.0	.1	75.0
	46815	3	.2	.5	75.5
	46818	3	.2	.6	76.2
	46819	1	.0	.1	76.3
	46825	2	.1	.3	76.6
	46835	3	.2	.6	77.3
	46845	6	.4	1.1	78.4
	46901	7	.4	1.2	79.6
	46902	2	.1	.3	79.9
	46905	0	.0	.1	79.9
	46910	1	.0	.1	80.1
	46917	1	.1	.2	80.3
	46923	1	.1	.2	80.5
	46926	1	.1	.2	80.7
	46932	0	.0	.1	80.8
	46933	1	.1	.2	81.0
	46938	1	.0	.1	81.2
	46940	2	.1	.4	81.6
	46947	8	.5	1.5	83.1
	46952	1	.1	.2	83.3
	46953	1	.1	.2	83.5
	46960	1	.1	.2	83.7
	46962	2	.1	.4	84.1
	46970	14	.8	2.5	86.6
	46974	4	.2	.7	87.3
	46975	8	.5	1.4	88.7

22. Zip Code

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	46978	1	.1	.2	88.9
	46979	1	.1	.2	89.2
	46992	4	.3	.8	89.9
	46996	3	.2	.6	90.6
	47091	1	.0	.1	90.7
	47302	4	.2	.7	91.4
	47304	2	.1	.3	91.7
	47334	1	.1	.2	91.9
	47342	1	.1	.2	92.1
	47359	2	.1	.3	92.4
	47371	1	.1	.2	92.7
	47374	1	.0	.1	92.8
	47383	1	.0	.1	92.9
	47460	1	.1	.2	93.1
	47482	1	.0	.1	93.2
	47802	3	.1	.5	93.7
	47803	5	.3	.8	94.5
	47805	1	.0	.1	94.7
	47834	1	.1	.2	94.9
	47837	1	.0	.1	95.0
	47858	1	.0	.1	95.1
	47872	1	.1	.2	95.3
	47901	2	.1	.3	95.6
	47904	0	.0	.1	95.7
	47905	5	.3	1.0	96.7
	47906	3	.1	.5	97.1
	47909	5	.3	.9	98.1
	47918	2	.1	.4	98.5
	47922	1	.1	.2	98.7
	47933	1	.1	.2	98.8
	47934	1	.0	.1	98.9
	47960	1	.1	.2	99.1
	47965	1	.1	.2	99.4
	47971	1	.1	.2	99.6
	47978	1	.1	.2	99.8
	47990	0	.0	.1	99.9
	49798	1	.0	.1	100.0
	Total	547	32.3	100.0	
Missing	98	3	.2		
	99	6	.3		
	System	1138	67.2		

22. Zip Code

		Frequency	Percent	Valid Percent	Cumulative Percent
Missing	Total	1146	67.7		
Total		1693	100.0		

23. And last year before taxes what was your total household income?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Under $15,000	158	9.3	11.0	11.0
	2 $15 to $25,000	185	10.9	12.8	23.8
	3 $25 to $50,000	403	23.8	27.9	51.7
	4 $50 to $75,000	299	17.7	20.8	72.5
	5 $75 to $100,000	227	13.4	15.7	88.2
	6 $100,000 or more	170	10.1	11.8	100.0
	Total	1442	85.2	100.0	
Missing	8 DK	80	4.7		
	9 REF	171	10.1		
	Total	251	14.8		
Total		1693	100.0		

REGION

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	418	24.7	24.7	24.7
	2	228	13.5	13.5	38.2
	3	173	10.2	10.2	48.4
	4	215	12.7	12.7	61.1
	5	163	9.6	9.6	70.7
	6	496	29.3	29.3	100.0
	Total	1693	100.0	100.0	

Open-ended Questions - INDOT

Q4A. What have you changed in your driving patterns as a result of the change in gas prices?..... 2

Q7. What do you think is the one most important benefit of public transportation?..... 32

Q8. What do you think is the biggest drawback of public transportation?..... 75

Q13D. What other forms of funding should the government consider?..... 113

Q4A. What have you changed in your driving patterns as a result of the change in gas prices?

Respondent ID	Q4A
1	as little as i have to, combines the jobs, reduce the speed
2	Limiting the number of trips that you have take
4	After work, I'll go see friends or go to store on the way home. Driving shorter distances to places for more convenience.
5	We dont go anywhere that I don't have to go
8	in the better weather i rode my motercycle more
9	eliminating unnecessary trips
10	we dont go out as much, as far
11	cut down on my driving dramatically. also switched jobs.
12	cruising and not stopping and starting as often
14	never drive that much
15	Driving less by combining trips and using a bicycle.
16	I do it all at once, like paying bills or going to the store now.
20	take off slower ant not driving fast
22	dont go to grocery stores much. havent been on vacation for two years.
25	I do all my errands it all in one day. We think twice before going out of town to shop or eat out, like South Bend.
26	Quit driving very much and take the electric vehicle
27	I drive less and I try to keep every trip in a single direction
29	do several things together in one trip
32	try to fit all my trips to places in one trip instead of going all around for separate trips.
33	try to drive in less traffic and try to combine errands whereever possible
34	only go to the grocery store and doctor
35	dont drive near as much
36	I don't go out as often. I try to shop for the whole week so I don't have to go to the store as often.
37	less trips
38	make fewer trips and dont go very far
39	cutting back driving
40	I don't drive as much especaily long distance unless I have a good reason
41	do errands at one time not eliminatetrips to going topay bills
43	drive less
50	not traveling as much
51	I make on trip, on a saturday, to do my shopping. I also stay at home as much as possible.
52	drove ur daughter car, she has better mileage
55	dont drive if i dont have to

56	We do more shoping localy and had more food delivered to our house
58	i dont go anywher besides work
60	dont drive to saturdays, dont drive if its not neccessary
62	Consolidating trips and shop more locally.
63	i dont go as much
64	Just stay home because of gas prices. I bought a different vehicle because it runs better on gas.
65	We don't go out unless its necessary
66	I don't drive as much. I make my daughter bring her kids to me now.
67	travellin less
68	i dont go out driving far out, stay close to town
69	consolidate our runs used ultra-miling techniques
70	try not to drive as much
72	don't drive ans much and you combine trips
75	Making sure I get everything I need before I get home.
77	We don't go as much as we did.
78	less driving
79	I've tried to make unneccessary trips, I try to think of all I need when I am uptown.
81	dont drive as much. dont take side roads as much
83	try to combine more errands or actvities into one trip.
88	combining trips
89	I think about what I need and try to make one trip and consolidate.
93	We started taking the smaller car when there were less passengers and changed travel plans to closer places
95	distaces we travel, days we travel, 3 days in a week
96	We try to everything in one trip when we go to town. We do not fill up our gas tank up anymore either, it would cost over 100$ to fill our truck up.
98	I go to the closest grocery even though the further one has better items
103	ride bike rather than drive, do not drive as much over all
104	limit travelling to sites close to home
106	I consolidate trips to serve more than one purpose
107	routes that i take
110	TRY TO GROUP OUR ERRANDS TOGETHER, WE HAVE NOT MADE AS MANY ROAD TRIPS.
113	not going in town often
116	ride the bicycle, combine the trips
117	I HAVE CUT WAY DOWN AND HAVE TRY TO INCORPORATE TRIPS
119	I save my errands and do them all in one trip. I just don't drive as much anymore.
120	I go to the grocery store on the way home from work and I don't go anywhere on my days off
121	MAKE SURE TO DO MULTIPLE STOPS. AND DRIVE SLOWER
123	dont drive as much than before

124	combined trips...fewer times to store or work
125	taking shorter and fewer trips
127	I just don't drive as much.
130	I DON'T TRAVEL AS FAR OR AS OFTEN
134	fewer trips
135	We just don't go anywhere.
137	DON'T GO PLACES
139	I try to be economical by taking the small car and doing many things in one trip
140	drove less stayed closer to home
141	making fewer trips consolidating trips, doing all i could on one trip
143	GROUP YOUR TRIPS AND WAIT UNTIL I HAVE A REASON TO GO OUT
144	drive less consolidate trips
145	don't go shopping anymore to save money
146	cut down on driving
147	try to drive less
148	not driving as much combine trips
150	combines trips
151	not going to places as much as we use too
153	riding my bike and walking more
154	WE COMBINE TRIPS AND NOT GO AS FAR
156	do couple things at the same time, multitasks when she needs to get things done,and donest go anywhere else if she doesnt have to
158	drive slower and measure trips more carefully and gas one a monthe
160	don't go for ridea anymore
161	DRIVE LESS
162	the number of times i go to the store
164	TRY TO GET AS MUCH DONE THAT I CAN IN ONE DAY
165	try not to drive anywhere
166	TRY TO DRIVE LESS
168	cut down
169	my errunds that i run. do those the same day i do grocery shopping. don't go as far
171	don't make any unessary trilps
172	I CONSOLIDATE TRIPS
173	number of commutes. don't do unnecisarry traveling. bunch it all together make as few trips as necisarry
174	no vacation becuase its expensive and do drive to places
175	don't drive as much consolidate trips
176	don't go places as much
177	i don't go to as many friends houses but i still have to go to necisary places
178	make fewer trilps
180	I don't go any where unless I have to

182	dont drive that much and cant afford the gas
183	Try to combine trips and less travel out of town
187	We consolidate trips. I take my wife to work instead of her driving herself.
188	slow down and don't go to as may places as you used to
191	don't drive as much
192	I ride a bicycle to work some times
193	i don't take spare of the moment trips anymore and make sure i have more than one thing to get done
196	tried to get all running done all at once, stick to residence,and reduced driving
197	I use my truck less and my mini van more often
198	dont go no where
200	Cut down on trips
201	very seldom go anywhere
202	I DO ALL MY TRIPS AT ONCE. STOP GOING FRO DRIVES
203	traveling less
204	traveling less, havent been going to second home at all because of gas
205	i dont go out for unessecary reasons
211	going out less
213	i dont go many places only if i have to. I like to make one big trip when running erands
215	fewer trips that werent necessary
221	scheduling several things to do with one trip
222	Try to drive less and consolidate errands
223	we don't go to as many places
224	cut down on driving now i only go places that i have to go when i need to go.
229	combining trips
230	We try to do all trips at one time and in the same area.
231	gas is too expensive.
232	kinda watching so i can get thinds together to make one trip
233	Not taking unnecessary trips
236	combine trips
237	combined trips
238	I limit my drivibg nowadays
239	The number of times we go places so we dont have to make extra trips.
240	we only use one car and when we do go somewhere we make a plan so that we can do it all quickly and stay local
245	i dont go town as often
246	We only make one trip to town on the weekend.
252	Changed the amount of times I go to places.
256	driving less miles
257	stay home more, and accelarate less

261	Dont drive around for no reason anymore.
263	don't drive as much.
264	combine trips. lives in county. less trips per week
266	well i just make fewer trips
268	we don't go as much and if we go then we combine errands
269	don't go as far as often.
271	Just quit going to the lake property that i own in addition to the home
274	I do more intown than out of town grocery shopping and filling up gas.
275	consolidating trips
276	try not to places often and plan the shortest route
277	I PLAN MY ROUTE BEFORE DEPARTURE. PLUS I SHOP ON THE WAY HOME FROM WORK.
278	Cutting out multiple runs and making one trip one day of the week
279	i ride a mo-ped instead and also ride a bike
280	drivbe the smaller vehicle
284	no go as much. can't afford it.
285	utilize on trip to take care of several errands
287	go under 65 miles, dont speed and dont idle the car tuen it off
288	dont drive as often
289	STOPPED DRIVING SO MUCH
290	try to shop closer to home.
291	i try to combine trips so that i dont have to drive as much
292	We just dont go around to different communities as we use to, we just dont move as much
296	finding the shortest not driving as much
297	not driving around so much
302	cut down travelling
304	Use our car more often instead of truck and narrowed the amount we drive down to fewer days.
305	dont go unless i need to
307	We drive less, and condense our trips.
308	Drive less
309	i sit at home and do nothing instead of going out
311	do go as much
313	car pool
317	consolidate trips stop going places
319	drive slower
321	Going out less and only driving when necessary.
322	I run my errands on one day only all at once.
324	a lot less trips
325	Consolidate grocery shopping and other shopping all at once.
326	restrict unecessary trsvelimg

330	consolidate and take the shortest route
331	Wehave,well,if we're going to do something we do more than one thing. Travel and make a loop.
332	dont drive as much and watch our speed.
333	Combined trips to minimize driving.
334	i dont go anywhere unless its an emergency
335	amouint of travel that i do.
337	just didn't drive unless i had too
338	don't go as much
339	avoid unecessary arrands
340	reduce travel time and miles traveled. I guess whenever we go shopping we do all errands at once
341	do not travel as much
345	QUIT GOING ALOT OF PLACES STAY HOME MORE
347	just usually to work and home and ride the bike
349	don't go has far and no vactions.
350	we arent taking as many as weekend trips and did not plan a vacationm
352	DRIVING LESS LESS TRIPS IN TO TOWN
356	got rid of one vehicle bought a scooter
358	combined trip dont go out as much
360	We just don't leave. If we have to go get something we go get everything we need so we don't have to drive as much. We can't afford it.
364	Dont drive to daughters house as much as I did before. I condense my shopping all into one escpecially grocery shopping.
368	RIDING BIKE MORE
369	we dont go much often make sure we need t ogo to lot of stores in the town.
371	more car pulling
373	taken less trips
375	PASS ON SHORT TRIPS
376	Stay at home more often.
377	all ERRANDS DONE AT ONCE
378	dont go anywhere on weekends
379	Try to make on trip for alot of different things, make few trips to town
381	We have a smaller car.
382	my routes
383	Cut back on extra trips out.
384	limit trips into town do all the things that need to be done in one trip
385	DON'T DRIVE AS MUCH WALK OR RIDE A BIKE
387	cut out unecessary stops
388	DRIVE SLOWER AND LESS OFTEN
389	TRY TO DO AS MANY ERRANDS AS POSSIBLE IN ONE TRIP

390	I work closer to home now.
391	lowed speed and do travel as much
392	dont go anyplace we dont have to
393	don't go to town much
394	We don't make as many trips.
395	We only do roundtrips and dont run around during the day.
396	drive less
399	go less places less often
401	less driving
402	dont drive as much
403	the lighter foot
406	Frequency of driving.
407	no extra trips if its not on the way home dont stop
408	driving less
409	different time of day not that much traffic
411	Try to be more efficient by condensing trips and carpooling.
412	A LOT LESS DRIVING. I STAY HOME MORE
413	more selective
414	don't drive as much
417	Tried to drive slower.
419	reduced patterns
423	I go grocery shopping once a week, walking to the gym
424	I have relocated my job closer to my house.
427	catagorize and go
428	dont g oto crawfordsville as often
430	dont go to far
431	i dont drive places, i don't take trips. usually take plane or train
432	bought a bike adding baskets to bike
438	the smount of driving time
439	MAKE FEWER TRIPS AND TRY TO COMBINE THINGS IN ONE DAY
440	shortest route and not driving when unnecessary
441	We try to combine trips.
442	Driving less.
443	make fewer trips to city
445	Job.
447	I do everything in one trip instead of two or three.
448	we dont go places very far, prices r outrages
450	i try to cordinate my erands so that if am going to a further side of town i can do more things at the same time
452	instead of 3 trips, we go 1
453	we don't go nearly as often

454	WE GET EVERY THING DONE IN ONE TRIP
455	combine trips
457	to and from work and that is all
460	i walk more
461	combining trips and going only when necessary
462	Dont borrow a vehicle anymore becuase in michigan where i need to go its tomuch money
463	i try to combine all my erands in 1 trip
465	Dont go to as many places as much.
469	quit driving out of state
470	Drive less and I try walking instead of driving when I can.
473	Walking more
474	Consolidate my driving.
477	only go out when nessecary
478	plan trips more and don't make any extra trips
483	try to make fewer trips, and combine trips
484	don't go as offten
485	i stay home more
486	we try to as much on the list as possible to not make unncessatry trips
487	I consolidate my trips and drive slower to get better mileage.
488	ride the motocycle than car, take the smaller car
489	i try to get everything done in one trip instead of having to go back out
490	I TRY TO PUT MY BUSINESS INTO ONE DRIVING TRIP
494	occasional carpooling
497	drive less
500	I CHANGED TO A MORE ECONOMICAL VEHICLE
501	consolidate errands
502	only drive when neccessary, grocery, appoinment
503	Dont go out as much and wait to go to store when i need to.
505	dont go out as much
507	Either walk places, or park car with in walking distances
508	I ONLY GO TO THE STORE AND OUT FOR MEDICAL REASONS
509	Try not to take as many trips to town.
510	i dont travel as far
514	Less trips into town. Dont go to as many places and limit my recreation.
515	map out errands and combine them
516	we don't go out as much
517	aside from dfriving that much, we drive a prius
519	drive less, plan trip
520	try to condense and combine errands in one trip
522	you stay home more

523	I dont do a lot of running around and dont make any unnecessary trips.
524	combine trips as much as i can
526	I DON'T MAKE AS MANY TRIPS AS I USED TO BEFORE. WE PLAN OUR TRIPS AHEAD OF TIME
527	Do not drive as many places.
531	Stay home more.
533	drive less, dont take trips
534	Dont go as many places as i used to
535	go on fewer trips short distance
538	tried to solidate errons into one trip instead of not caring about it.
539	i started riding my bike
540	less driving
542	we dont go as much. they need to bring the gas prices down.
544	Make sure when go out so all at once to don't have to go out again.\
545	going out less
546	.all errands done in one trip
547	drive slower, less trips,time out the lites, more awware of driving habits, ride bike
548	can't take a vacation so decided not to go on vaction this year. rescheduling doctor appt.
551	try not to drive as much, combine trips
556	don't camping far away
557	I don't go anywhere
558	condensed trips
560	driving less
564	dont go as often, drive less
565	driving less, husband bought used motorcyle
568	Doing everything in one trip. And not doing any extra driving that I have to do. Driving Less.
570	try to do more things in one 1 trip, stop driving the truk
572	being more careful to routing and not going out as much as before
574	I try to combine my shopping in one trip and make as many stops as I can to get it over with.
575	try to get things while i'm out at work anyways. get everything in one trip
578	Only use the car when need to do something important.
579	dont travel as much.
580	I try to run more errons in one trip.
582	Go slower.
583	My husband and I drive to work together instead of me driving separately.
584	i don't go out of town to buy groceries. i don't go anywhere for pleasure just when i have to go some place
585	I limit my trips out and make sure that if I have to go out I i run more than one erron at a time.

586	Try to do everything in one trip.
587	resigned job
590	dont make many trips, not to try to grocery for one thing
591	I have been riding the bus.
592	planning trips more carefully
593	driving else
596	dont go anywhere and can go outto eat or anything else
597	we drive fewer miles,fewer trips unless necisarry
598	avoid unnecessary trip
600	Dont go out as often.
601	try to make less trips in town
603	I dont take as many trips to the store and I combine my trips as much as I can.
604	less trips to town
605	less drivin
606	instead of trying to get out of the house to see new senery I stay home and only leave when I have to.
607	amount of driving
608	do to the store once a week and spending habits
609	park suv and bought smaller car. AND running less errands at least try to. we have to go into town for everything
610	don't run the fort wayne errunds. do more shopping localy
613	make sure everything counts when i leave the house. my kids have to get part time jobs now to pay their pwn gas
614	We dont go to any places we didnt go on vacation this summer.
615	try to drive car more than the pick up truck to save gas
618	Not going if we dont have to. I wish the prices would go down. It s is rediculus what they are charging.
619	make fewer trips
620	I DON'T DRIVE OTHER THAN GOING TO WORK. I DO MY STOPS COMING HOME FROM WORK
622	less trips
623	Shopping drive to shopping. We live out in country. So public tranporttion would be no use to us.
624	try to make one trip to it all for the week
627	I ONLY GO WHERE I NEED TO GO. I CAR POOL WHEN I CAN
629	USING CRUISE CONTROL MORE....STOP SOONER ON STOP SIGNS
630	i don't go out unless i have to and i getmy runnigns done at once
632	I dont go as much.
633	going out less consolidating trilps
637	not driving as much
639	i drive less
640	WE MAKE MORE COMBINED TRIPS AND FEWER TRIPS

641	do not go places near as much and my husband and I go places at the same time now instead of separately
643	I dont drive as much and making one trip count. Slow driving.
644	how far I drive, where you go on vacation time
645	shop much closer to home, I live in a small town. I have the largest outdoor model train service in indiana.
646	DO NOT GO TO THE NEAREST BIG TOWN. DO DRIVE AROUND ANYMORE..STAYS AT HOME
651	i ride my bicycle to work and drive less
652	consolidate trips
654	WE TRY DO THING LOCALY INSTAED OF GOING FAR..AND CONSOLODATE TRIPS
655	WE USE THE BETTER GAS MILAGE VEHICHLE
656	don't drive as many miles as i used to
657	limited trips and we hvae a boat we dont use very much anymore
658	Try to just make it to when the trip is coinside so I dont have to make more than one
659	kept driving to a minimum like make one round trip
661	don't go on as many long trips as i used to
665	only go out whenever we have to.
666	no driving as many places, not going to some places, and walking, andalso carpooling
667	I do not go to as many placesn. I don't visit my family as often as I use to.
669	drive the most efficient car more
673	I try to group more errons together.
674	I'M MOVING CLOSER TO WORK
678	I now go into Fort Wayne once week instead of 3 time week.
679	try to do everything in one trip;
680	Pooling, I drive with another person to work instead of driving alone.
686	drove less and combined trips
687	fewer trips, canceling long trips, only go to market twice a week
690	not going many places....staying home during off days
693	I'm not using as much I don't really go as far any more anymore. I take care of the necessities and that's it.
695	DON'T GO AS MUCH AND STAY HOME MORE OFTEN
697	dont do casual driving
699	I only take my car out when I go to the grocery. And to church on Sunday. I usually go out to eat with some women once a week.
701	fewer trips.
702	I DON'T GO OUT OF TOWN AS OFTEN. I'M GETING TO OLD ALSO
703	i tries to slow down and make as many trips
704	Dont go out as often.
708	I DO NOT DRIVE NEARLY AS MUCH.
709	dont go out as much

710	We take scooters everywhere we can. Church, the grocery store, work, visit family, etc...
711	I drive less
712	Stay home more.
713	we dont take day trips to indy on a whim anymore
715	I JUST DON'T DRIVE AS MUCH
716	never go for one item using one trip for multiple uses
717	dont drive.
718	do not make any unnecisary trips
720	i dont drive as much
723	She does not go that much. Used to live in indianapolis.
724	drive less
725	No more joyriding just for fun.
726	dont go as many places as before.
727	i have had to give my old car up because it was old and needed alot of work
728	Stay home more often.
731	not going out unneccisarily not for one item
736	more careful with where i go and if i can compile trips
739	i dont go as much and try to make one trip with every i need
740	I just don't drive as much
741	Tried to be more conservative.
742	dont drive as often...doesnt go anywhere
744	Drive less, combined trips.
745	try to limit trips to groceries and being a little more mindful to where we are going and how often
746	Actually we try to stay in Indy as long as possible until we come home, we're gone as long as possible. (probe--anything you'd like to add to that) no.
748	speed that i travel at. Restricted trips
749	Don't go to town. Try to do all arons in one day. Do anrons after work.
750	We walk more or don't going many places.
751	fewer trips less leisure trips and consolidated nec. trips
752	TRYING TO MINIMIZE THE NUMBER OF MILES
754	carpool more often
755	try to drive less
756	WE KUST DON'T MAKE AS MANY TRIPS TO TOWN
758	car pulling...cutting down on trips
759	Carpooled more.
760	Try to make one trip.
761	get everything in town on one trip dont go if i dont have to
764	I don't go to town often or when I don't need to.
769	we prob dont make too many long trips in the car nemore

774	Not driving as much
775	i go no where except to the grocery store, doctor and church
778	We don't go as much. We drive the vehicle that gets the best gas mileage. My husband drives his scooter instead of his truck.
779	drive slower
781	I JUST DRIVE LESS.
783	we catch a ride with friends and dont drive to many places
784	I stay home more.
785	We drive for necessary things only. We don't go out of town anymore.
787	We cut down on extra trips. Maybe not going as far on vacation.
788	I make a route that way I don't you know go back and forth, I make a map where I'm going so I don't back track.
789	do not dirve as much
791	My routes, not going as much to thenormal places that I used to go, just cut outsome of the driving.
793	we dont travel as much with the horses. if we go somewhere we stay 2 or 3 days instead of going back and forth. I run all my errans in town while i am there.
795	Not driving around as much.
797	changed taking day trips. Using car to get to work. store. Don't really go for rides like I use to.
798	I dont drive as much.
800	I make less trip. when I am out I do more productively
802	we trt to make sure we only go on trips that are very necce. and multi-task at the same time and we are going shopping go to all the stores we need to
803	I TRY TO COMBINE TRIP. NO DRIVING UNLESS NECESSARY.
805	consolidate trips more. don't go out as much.
806	You budget yourself on gasmoney and stuff, we never had to do that before, but we have to do that now.
807	combining trips/ car pooling
808	i try to get my errands run together.
809	i dont drive as much i just dont run to town like i did before
811	tried to drive less
812	we dont go outta town as much. and we dont go out to eat as much we make every trip count.
813	Cut down on my driving.
816	drive less/
817	driving less
818	dont go to places where we absolutely have to go.dont make unneccesary drives.wishes gas prices would go down
819	driving less
820	I DON'T GO OUT AS MUCH
821	Carpool more.

822	dress less/ live in country. Do more than one thing
826	car pool and use interstates more and drive slower
828	dont go as much anymore
829	think more about the routs i take
832	consolidating trips errands cutting down on driving
833	i dont go into larger cities that often maybe once a week i used to go maybe 2,3,4, times a week
834	The motorcycle gets driven more frequently since it is cheaper. This is done so we reduce the amount we spend on gas between the two trucks.
835	Don't go as many places.
837	limit trips
839	go to and from work. Use car with best fuel mileage. Don't make any extra trips
842	less driving
843	combine as many errands and do not drive long journeys. Flying instead of driving and carpooling to work
856	Make fewer trips. I go out, make a big loop, and come home.
859	dont drive as much. make sure it is important need to go
860	Try to consolidate my errands into one.
861	We bought a smaller car.
862	If I go to the other side of town, I plan all of my errands at one time, instead of go somewhere one day and somewhere else the next.
863	I WAIT UNTIL I NEED THINGS. I THINK TWICE ABOUT LESIURE DRIVIN
864	make one sure do several errands, i line up all my chores and errands and save them for one trip
866	try toconsolidate trips
867	CUT DOWM ON TRIPS. COMBINE CAR RUNS. WE RIDE TOGETHER TO WORK INSTEAD OF DRIVING SEPERATELY
869	Don't go anywhere.
871	We have cut down on our weekend get aways
872	driving less
873	less driving
874	don't drive as much as use to. Check vehicle out more
876	not driving as much
878	I work out of my home office now.
879	I try to plan multiple stops on my trips to town instead of just running every day.
880	drive less often
881	slowed down
882	going to the stores and routes.
883	Vehicle, moved to a more fuel-efficient vehicle.
884	we dont go very mant places anymore
885	dont go out as much
886	less driving

887	dont drive as much
888	I plan ahead.
893	I have tried to make more than one, do more than one thing when I'm out in the car, so that I don't drive as much.
894	I drive alot less and try to do 3 or 4 things while im out.
897	don't go as much in my car, if someone wants me to go I go with them.
900	dont go anywhere except work.
901	I dont drive nearly as much.
904	drive less and conservetevly
906	Dont go out as much
907	drive speed limit,
908	not going as many places. slowed speed down.
909	I don't drive as often.
910	I DON'T GO ANY WHAERE UNLESS I HAVE TO. I CONSOLIDATE MY DRIVING TRIP.
913	dont go out as often
915	I've made my routes shorter, I've found more backroads that make the trip a little bit shorter.
917	I stop by stores on my way home from work instead of going out of my way to go to the store.
918	gas mileage usage
919	redused
920	I HAVE GIVEN UP MY CAR. I USE THE BUS NOW.
921	Don't drive much on weekends
923	drive less
926	ive do everything i need to take care of in one big trip
928	walk more places, drive less
929	I dont drive as much and compact more trips together. I also ride my bike alot.
930	i try to condense my shopping trip into once a week and having more planning b4 i take a trip. i try to do car pool when i go to my childrens games with the other parents
939	Less trips combined trips.
940	slow down
941	drive less
942	slowed down
943	dnt go as many places
945	don't drive very much
947	I consolidate errands. Quit my job because it was 60 miles one way and gas is way to expensive for that.
956	less trips make more stops once i leave the house less stops outside the city
957	i go out less
959	Reduced the miles driving.
961	only go out once a week

969	stoped going out as much.
972	driving less
973	Changed where he was working
974	drive slower
976	Postpone trips that are not needed.
977	dnt go as many places
978	try to make one big instead of a lot small trips
980	i dont go out as much and cut down on vacations
981	less driving
985	Dont go anywhere
986	i dont drive as much
987	fewer trips
988	less driving
989	got a job closer to home.
990	We take our smaller car which is more fuel efficient instead of minivan.
992	less driving
993	drive lesss and car pull
994	carpooling, cut back on doctors visits
995	I started riding my bike when I can.
997	My husband bought a better car with better gas mileage.
999	I drive less becuaes gas prices are to high
1000	Slowed my driving down and consolidate my trips.
1002	combining stops
1003	We don't go anywhere; if we have to we make a list and we do it all at onetime. That's it. Ain'tno extra trips nowhere.
1005	don't go anywhere
1007	we condence our errands
1009	dont drive as much
1010	don't drive anymore
1012	do not make as many trips.
1013	Don't go as many places as often.
1014	don't go as far to shop or often. children live 100 miles away, don't go there as much as would like becasue of the cost and they are not able to come as much to see us. makes it harder
1017	dont go out as much
1019	not as many trips
1020	less driving fuel mileage
1021	Try to make better use of my trips to town (more efficient).
1022	We just don't make as many little unnecessary trips.
1024	putting all trips all together, sit in the parking lot and wait for the next apoinment instead of going home

1025	driving less
1027	combine trips so i wouldn't make alot of runs. try to get everything done at one time.
1028	dont run and do errands if i can do it online
1029	I just don't go as far or run as much. we consolidate our trips
1031	Well, I don't drive as far as I used to. I do not make as many trips to the store or wherever.
1034	drive lot less,
1036	not make unnecessary trips
1037	driven less and slower
1038	not driving as far away not driving as often
1040	STOP DRIVING THE VAN AS MUCH BECAUSE OF THE GAS MILEAGE
1041	drive less and car pool
1043	not go all the time
1044	I dont drive as much I try not to.
1045	I donn't make as many trips out. I CONSOLOIDATE ERRANDS
1046	dont drive as much
1047	dont drive out of town
1048	I don't go anywhere anymore. I stay at home. Less driving.
1049	stop using suv so much and used regular car
1050	we try to make combine trips and drive little as possible
1051	don't drive as much, don;t go far distance
1052	I dont make as many trips to the store I try to do everything in one trip
1053	Stopping on our way home and not making more trips to town.
1054	do not travel as much
1056	fewer trips to town
1059	Group our trips together
1060	go as much as she use to
1061	i try to combine my trips so i can save gas.
1063	work from home more often ride together more often
1064	have not driven as much
1065	we used to take off and go places on the weekend and now we cant afford to now
1067	I only go to town on the days that I work to run errands.
1068	make less trips
1069	Some of my routes to make sure they're the most efficient.
1070	try to get everything in one trip So i dont have to go back
1071	decreased short trips
1072	didn't go a vacation
1073	no driving as much
1074	I try to think of things that I can make into one trip to go into town with.
1075	how otfen uses car to run errands. carpull
1076	I only drive the truck to work and back, nowhere else.

1081	stay home
1082	driving around
1084	trying to use less gas. I don't go to as many places
1092	drive less
1093	I walk everywhere.
1096	driving less than i use to trying to organize all my trips
1097	I JUST MAKE SURE I DO ALL THE THINGS IN ONE AREA AT ONE TIME, DON'T GO ACROSS TOWN.
1098	We just don't do long trips at all.
1100	drive slower.
1102	DO NOT GO TO TOWN AND GO PLACES AS MUCH AS WE USED TO
1103	I drive muchg less.
1104	try now to think about all that needs to be done. less possible trips
1105	Combine trips into town.
1106	walks more, use bus couple of times
1108	combining trips
1112	don't make unnecessary trips
1113	keep everything in one day, husband walk to his work
1115	Stopped driving car and began driving a moped.
1116	we try to make sure that we make sure we do whatever we need to do at one time
1117	do not go anywhere
1119	not goin out as much on weekends
1120	more local
1122	we do not go as many places
1123	dont go as much, group the travel together
1124	I don't go as much. I have children that live as much as 100 miles away and grandchildren, but I don't visit them as often.
1125	I just dont drive much, we stay home more.
1128	less trips in town
1131	I try and combine my trips to town so that I dont have to make more than one trip into town
1132	not driving as frequently
1134	I dont go out at often.
1138	use to not think about anything else. now bunch everything in one bunch/trip
1139	Watch how many unnecessary trips I make, and I just don't drive unless I need to. More or less just stay home.
1140	i use the excelerator least and no air conditioning
1141	now 3cylnder autombile instead of 8
1142	drive less
1146	I don't drive quite as much.
1147	I USE A MOPED NOW. I JUST DON'T DRIVE AS MUCH

1151	Dont drive as much and walk whenever I can.
1152	make one trip instead of several. Must really need it before going to get it.
1154	use the more fuel efficient car
1156	Dont make as many unnecessary trips.
1157	we dont drive as much. i only buy 20 dollars at a time
1158	We walk quite a bit more.
1160	Staying home more
1161	SLOWING DOWN, consolidating trips and more frequence maintenance
1163	I drive a lot less and I combine my trips when I need to go somewhere.
1169	cut back
1174	carpooled
1179	I dont drive as much as I used to (Just to work and grocery store now).
1183	i hardly go anywhere, i only wait to make a =ll my trips at once, i live 3 miles fron towm
1186	We don't go much of any place
1187	i dont go near as much as what i used to
1188	I try to consolidate my trips into one.
1189	havetdrivenquiteas much, take short cuts
1193	dont drive as much
1194	drive less
1195	stopped driving as much
1197	i try to make less trips into town and i dont drive to town as much either
1200	I try to make less doctors trips. we try to get every thing in one trip
1201	less driving
1202	no extra runs one trip to town
1203	i try to make every trip count and i dont nmake unnecessary trips out of town
1206	dont go out as much
1209	I TRAVEL LESS INTO TOWN NOWADAYS
1211	Combine errands, ride bike
1212	Consolidate trips
1214	car pool to school
1217	I TRY TO MAKE FEWER TRIPS. PURCHSED A VEHICHLE THAT GET BETTER GAS MILAGE
1219	drive less and consolidate errands on one trip
1221	combining short trips shorter vacations
1223	drive less
1225	I DON'T GO ANY WHERE.
1226	i say in my part of town more, limit trips
1228	cut back on trips
1229	Dont go to places as often.
1231	drive less
1233	I JUST DON'T DRIVE AS MUCH

1234	carpooling and drive less
1235	ride the motorcycle more than other vehicles
1237	i just make less trips
1239	drive slower
1244	i try to do things in one trip
1245	only drive when have to
1246	fewer trips, me and wife try to go together
1250	no extra driving, no recreational driving
1251	dont take as many long distance trips
1252	take the bus
1255	Doon't drive as much.
1256	drive less
1258	i don't go places as much anymore
1259	I consolidate all my shopping at one time.
1262	Curtailed his driving sugnifficantly.
1263	drive less
1264	Make fewer trips to run errands, dont try to nearest town like use too
1265	consolidate trips go on less trips
1266	lets trips and combining trips
1267	My husband and I combine our trips now instead of us driving separately.
1268	Don't go nowhere because gas prices is ridiculous.
1269	I drive slowerI. G P S gives me the shortest distance to go.
1270	Havent gone anywhere or bought gas in four weeks.
1271	don't make extra trips
1273	we dont go very far and we dont drive as much
1275	Cut back on trips and car pool with husband
1277	We don't use the S U V when we go out.
1279	fewer trips
1280	try to consolodate trips to town
1281	we live in a ruaral area and don't take as many trips
1284	Drive less.
1285	frequency of trips
1286	I go slower
1288	trying to drive less
1289	we don't make trips unless we have several things we have to do
1291	Stay home a lot more.
1292	i dont come home from work to have work. weve gone to using the cheapest car available
1293	don't make as many trips
1295	don't go out as much condense all my trips into one
1296	Started working at home, making less trips outside home

1298	My husband travel places together instead of separately
1299	I try to do more reand at one time. less trip
1300	driving less, combine trips and drive slower
1301	my hisband and i switched vehicles cos he has to drive farther to work. we eat out less
1304	I dont go as much.
1306	The frequescy of use of the vehiecle.
1307	Dont travel near as much
1309	combining trips
1310	Ride on bicycles if close, use public transportation if to hot to ride bicyles/no gas money
1312	Drive more the pickup truck since it gives better gas milage than the van.
1313	quit driving as much
1315	i stay at home more. i have to walk more
1316	i don't run to the store everyday..I try to conserve
1317	drive slower
1320	Dont go out much, changed doctors etc.
1321	drive less
1327	Not going out at all. Reducing trips out
1328	try to make one trip to take care of everything
1330	stay home more
1331	don't go out of town as often on trips
1332	I make sure I dont pass over where I have been and go from one place to another with out wasting time.
1333	How many time i go visit a friend, use to go to state parks every week with mom dont do that anymore
1334	fewer trips,stay home on days off
1335	making sure that driving is efficient running errands at once.
1336	We take more trips together with one vehicle
1337	trying to not drive as much.. trying to ride with other people
1338	drive less
1340	drive less miles, drive to not drive as fast
1341	just don't go nowhere no more unless i just have to
1342	we dont make as many forward trips.
1347	dont drive out of town as much, cosolodate trips
1348	Drive the more the HOnda Civic and reduce speed.
1349	I dont drive nearly as much.
1352	I do not travel long distances anymore I use to travel an hour away to go shopping and now I dont
1355	I try to walk places, and I to plan my life so I can walk to them
1357	we try to do everything in one trip

1358	I dont go as much. I only go to church and to the grociey store.
1359	i dont drive as much
1360	just dont drive as much.
1361	less driving
1362	try to consolidate errons.
1363	we just don't go as often as before. Got the store less often too
1364	My visits to the market and things like that I make a good list so I don't have to return and I limit my visits to friends and family.
1366	Places we go, we stay at home more.
1369	More car pooling
1370	go less places
1374	I don't drive as much
1376	dont drive home from school everyday and not as much on the weekends
1378	i got rid of my truck for more fuel efficient car
1380	no long trips
1382	By combining my trips and not take road trips.
1383	Drive less
1384	WE STAY MORE AT HOME . WE GET EVERY THING WE NEED IN FEWER TRIPS TO TOWN.
1385	I dont drive as much.
1387	combine errands such as shopping in one trip, carpoll and nor as much road travel vacations
1389	Drive less, combined trips.
1393	go to less places
1394	less driving
1397	I try to make my trips count and don't go as far.
1398	don't drive as much
1400	doenst fo out much
1403	FEWER TRIPS
1409	we limit our trips into town and think about what you have to purchase on your way home from work.
1411	We don't go anywhere anymore
1412	Drive less (probe) that's the primary thing.
1413	drive less and dont go out of town as often
1414	don't travel as much
1416	we just dont go out of town as much as we used to
1419	Less traveling
1420	We ride the van quite a bit to go to the grocery store.
1421	try not to go as far as we have to
1422	try to do things in one trip
1423	we don't go as much and when we do we get it all done in one trip
1425	I walk more.

1426	driving less
1427	I ride my motorcycle more.
1428	don't run as many places as I use to and I try to combine my shopping together
1429	Just the speed
1431	No spur of the momenet rides. We had no vacation this year.
1432	COMBINING TRIPS
1435	staY home
1436	don't go to as amny places as you used to and buys regular gas instead of premium
1437	if i got out i do trips to save gas. run errands all at once.
1438	combine trips
1440	I just make plans better to plan out my errands using as little gas as possible.
1442	we just dont go as much
1444	grouping errands
1446	combine trips
1448	try plan route before leaving
1451	walk more
1452	havent driven as far
1454	Going fewer places.
1456	i dont go out as often.. i walk when i can
1458	got a new job.
1459	we drive our golf cart more
1466	I just don't go anywhere anymore; we stay home more.
1468	WE DON'T SHOP AS OFTEN AS WE USED TO.
1469	go less
1476	I ride a bike to get to my work vehicle.
1477	less driving back and forth and cut down on weekend travel
1478	drive less stay at home
1479	driving less, getting things closer to my house than goin further where i usually went before
1480	I dont go out as much.
1481	MY SUV SITS OE OFTEN NOW. I DON'T DRIVE AS FAR FOR ENTERTAINMENT
1483	Ruduced driving
1484	I don't go very many places. I use medical transport when I can.
1486	i haven't been making many trips
1487	fewer trips
1489	Plan out her days
1490	drive less
1492	my wife carpools with my daughter
1493	drive less
1494	We figured out what we have to do and where we have to go and take one car.
1495	carpool

1497	we dont go many places
1499	share ride with husband
1500	drive less
1501	more carefull when driving try to make on trip
1502	My husband usually would go out for an evening drive, we very seldom do that anymore, I have a new job in my home town that requires less driving (instead of a job in Illinois)
1503	buy a new vehicle
1504	i have tried to make one tripto do everthing that required
1505	trying to multi task and consoladete more into one trip
1506	drive less
1507	Shopping and other unnecessaries; rural Indiana has to travel 30 miles to shop.
1510	im not going as much
1512	I dont do any extra running around.
1514	MAKING FEWER TRIPS
1515	i dont drive as much
1516	I DO EVERYTHING AT ONCE
1518	not driving as much
1520	driving less
1521	i dont go as far as many times or anything
1524	drive less
1525	I dont go out unless I have to.
1527	drive less
1530	dont go out as much,combine errands
1531	drive less
1533	I DON'T GO OUT AS MUCH.
1539	driving less
1540	We try to go different ways and cut down on driving
1544	we don't drive as much
1545	run errands on the way to/from work
1546	I just try to be more concervative with my trips and try to organize them and I drive slower. .
1547	i try tomake everything in one trip
1551	I drive a lot less
1553	i combine trips
1555	minimizing the amount of gasoline used
1557	not going to places much
1559	we take fewer trips and carpool
1561	not driving as much
1562	combining errands
1563	carpool more often

1566	frequency
1567	cut back
1569	fewer out of state trips
1570	about 70 miles a day
1571	I consolidate my driving.
1572	only drive to bus stop
1573	I work out of the home now.
1574	I corporatate with my neighbors and we take turns driving each other to the grocery store.
1575	try to limit unneseccary trips
1577	less driving
1579	drive less
1582	working from home a couple days a week and i run last doing several errands
1583	i dont drive like i used to i try to preserve my gas
1585	havent gone as many places
1586	I go to the store less often.
1587	do go as much or as far.
1588	dont see kids very often, cut back on extra travels, go when we have to
1590	Different route to get to work.
1591	dont drive as much
1595	I don't go as many places anymore. I don't visit my parents very much; I don't go to the grocery store as often. We don't do fun things because of the price of gas. And sometimes we try to ride together instead of taking two different vehicles.
1597	I dont go out of town shopping like I used to.
1599	We do not go as much. We limit our driving.
1601	not as many trips. finding the cheapest gas.
1604	I carpool, I share rides.
1605	dont' do arens anymore/ don't drive as much
1606	I MAKE FEWER TRIPS TO TAKE CARE OF THINGS
1608	fewer trips and plannign where exactly to go and when
1609	dont go out as much
1611	Just try to consolidate my trips.
1614	I carpool with someone every other day.
1617	Just don't drive. I make fewer trips, try to go more places on the way.
1623	decreas the amt of trips
1624	going to work and back home
1625	We consolidate trips and I got a new car that got better gas mileage, and we try to drive that car. My husband has a truck.
1628	def less driving less extra trips
1629	I don't drive. I can't take the kids out to do anything because im paying 4.00 a gallon
1631	I DO NOT DRIVE AS MUCH

1632	go to ft. wayne once a month
1633	I make one trip do alot, I go one place I make sure I stop at all the other places I need to stop.
1634	don't drive as much
1637	i just dont run as many small errons and I try to group them together to do as many as possible.
1640	i go to wk and back and thats it. i dont do any pleasure and go visit plp
1641	Don't buy so much.
1642	I drive slower.
1643	Bike to college instead of driving.
1644	we plan a little more
1647	less trips
1648	keep trips to minimum
1650	I stay home a lot more.
1651	I DON'T GO OUT AS OFTEN
1653	I dont go out as often
1655	dont go out of town often. try to make multple uses of a trip
1656	we combine trips
1658	Basically we don't do much anything but go back and forth to work now. We've cut down on our vacations. We've cut down on how often we go out of town to see people.
1659	speed/ # of trips
1661	I DON'T GO OUT AS MUCH
1662	driving less frequently and combining errands
1664	Make sure that when I need to go somewhere I have several things to do instead of just one. I try to combine trips.
1665	less miles driven
1666	I drive less
1667	dont go as much as i used to
1668	I odon't go as much because gas is too high.
1669	we just dont go out as much as we use to
1670	tried to include dif stops in one day.
1672	Do everything at once so I make less trips and I visit my daughter less who lives in Indianapolis.
1673	I DON'T DRIVE UNLESS I ABSOLUTELY HAVE TO
1675	fewer trips
1676	we dont go as far as we use to and we dont drive as mmuch
1678	I just try to make less trips for business
1681	frequency of trips to the store
1683	we dont go newhere unless it is imparative to go there
1684	watch how use gas.
1685	We go alot less. We utilize the trips to the grocery

1687	I JUST DON'T GO AS MUCH
1689	dont make as many trips
1691	bought a new car
1692	SHORTER TRIPS
1693	make more errands in one trip
1695	i either walk or ride a bus
1696	trying to consolidate all trips into one and try not forget anything to cut down on extra running
1697	plan ahead better.
1698	Don't go to town as often
1700	We don't run after every little bit. We make it one day and do more errands on one trip.
1701	I only using one tank a gas for per month. riding bike to work.
1702	no unnecessary driving no vacation
1703	conscious of wasting gas
1707	Found a shorter route to work.
1708	stay home more
1709	TRY DO DO IT ALL IN LESS TRIPS
1710	accelerating slower
1711	dont go out that often.
1715	drive less or tried to
1717	dont go as much, no eating out
1718	not going out as much
1719	less driving
1720	I work as a visiting nurse and I had to drop people I visited because it cost to much in gas money.
1721	I don't go out of town shopping as much long distances
1724	we drive less
1725	less driving
1727	combine trips
1728	i plan ahead
1734	I dont make any unessesary trips.
1735	less driving
1736	less trips
1737	i don't go anywhere
1738	make fewer trips and combine trips
1739	try to have one trip to take care of everything and i try to route it so i use less gas
1741	dont go out as much
1743	slow down
1747	drive less
1748	drive less

1749	Consolidate more stops in one trip.
1752	not driving as much
1754	Dont drive as much.
1756	less out of town trips
1758	The amount of driving we do and stopped taking pleasure trips.
1759	less driving
1760	When I go out I try to bunch my errands together
1762	drive less and combine trips
1763	we just don't go quite as often
1764	How often we go to places; speeds at which we drive.
1767	Bought a four-cylinder.
1768	Dont go out as often and combine my trips.
1769	Less running, combining trips, doing everything at one time.
1770	don't take drives or travel as much no long trips. Don't work anymore
1773	cut back on driving one trip to town .
1775	i dont drive out of town
1780	I just quit going so much, trying to combine trips, or errands.
1783	Consolidate my trips that I make.
1786	We try to double up when we go to anyplace, like when we go to the grocery store we go to the drug store at the same time. We don't make any unnecessary trips. And we don't drive around just for pleasure.
1789	car pool
1791	Dont go out at much.
1793	not many trips
1797	I don't drive as much.
1798	drive less
1799	dont go as much
1802	i just dont drive much
1805	Took a job closer to home and just minimize errands.
1807	less trips bike riding to work
1809	i drive alot less
1811	dnt drive as much
1817	dont take as many joy rides as i used to
1818	I dont drive as much, I consolidate my trips.
1819	changed route speed
1820	I stopped driving, I walk or ride my bike to work
1821	stop goin futher away cut back in recreation
1822	drive less run errands in groups
1823	We dont travel as much.
1824	no pleasure driving
1826	Driving less...cutting back on driving.

1829	Going places.
1830	Consolidating my trips together.
1831	I changed how far I travel I dont travel to different sides of town.
1833	i carpool with people at work
1834	how fast i drive
1835	Just not going as much.
1836	I make sure that I have several errons to do at once
1837	Bought a hybrid vehicle and my husband works at home one day of the week now.
1838	amount of trips, do not drive as i normally do
1841	Drive less
1843	dont go out as much
1847	dont go as much
1850	consolodate errands
1851	drive less
1852	dont leave brownsburg much anymore
1853	carpool now
1854	drive less anc combine trips
1855	Our car that takes premium gas only we dont drive as much we use our v6 engine.
1857	A lot more car pooling. This is the most I have ever car pooled in my life.
1858	dont go many places
1866	driving less
1867	I do less trips
1870	Fewer trips,looking for the cheapest gas i can find.
1875	Just staying at home a little bit more.
1878	dont go many places
1881	less driving dont go out as much
1882	i try and make all my trips count
1886	I drive less.
1888	I don't go as much, and I usually go to the store with my daughter.
1891	take the car that get better gas mileage and combine trips
1897	limit trips
1898	i dont go as many places
1899	from driving to taking a bus
1903	drive less and put different kind of gas in my car
1906	dont go out as often
1908	dont do as much driving
1913	go less or not at all
1914	dont go out as often
1916	try not to go out as much
1917	not as many long trips
1921	drive less

1923	used ti come home for lunch but now takes lunch
1924	I have been using my mother's car because it does better on gas.
1926	Running more tasks on my way to or from work.
1927	make every trip to town count
1929	Cut down trips that were unnecessary. We eat closer to home.
1930	Not going as often.
1938	how much he drives
1940	Slower routes...keeps the speed down.
1941	dont drive the van no more
1944	drive less
1945	Car pooling.
1946	do not drive as much
1950	I try to make all my errands in one trip.
1951	Trying to do less trips...i.e. camping.
1952	Just make fewer trips
1953	I conserve all trips.
1954	I don't drive as much. I wait and do everything I have to do when I go out.
1955	I use to drive out east all the time to visit friends and family and know I visit just every couple of weeks.
1957	I take the bus more to work.
1958	I have tried to reduce the amount of miles I drive.
1964	I only go when I have to. I dont shop like I did before.
1966	I just drive a little less.
1967	Combinding trips and frequency of use. Riding a bike.

Q7. What do you think is the one most important benefit of public transportation?

Respondent ID	Q7
1	saving the emission, less pollution
2	cost effective
3	lower cost
4	Beneficial to people who can't afford their car/gas/insurance.
5	it would save the community gas
6	its more economical
8	cutting down on emissions/air quality
9	making transortation avlk tp low income ppl
10	savings
11	saves natural resources
12	the convenience, movability and timeliness of the system. Expanded schedules that run later and safer
13	cheaper than driving the automobile, if you dont have it there is no benefit
14	for those who dont have access to other forms of transit
15	Environmental.
16	Helps transport everyone, the young and the old together.
17	people at work will be able to get to work
18	i dont see any
19	Air quality improves if we transport more people efficiently
20	not so many vehicles on the road
21	less traffic
22	No need to pay for parking.
23	save gas
24	cost
25	Saving gas.
26	no benefit
27	Less traffic on the roads
29	reliability
30	Availability for people who dont have cars
31	to save money
32	it is cheaper
33	cheaper than driving a car
34	cheaper
35	saves on energy and pollution
36	You don't have to drive in traffic.
37	save money
39	reduce cost of driving

40	It would be less expensive
41	cheaper like car pooling and less pollusion
42	not having to drive yourself
43	save gas, not so much traffic
44	Reduces congestion on the roads.
45	less trafic
47	Safety.
49	low fuel cost
51	It would save fuel.
52	location, convenient
53	save a few pennies
54	cheaper than driving a car
55	moving people
56	It aleviates having to worry about trafic
57	Saving fuel.
58	use of less feul
59	to get people around,
60	carpooling, less gas and more people, covenient, u dont have to pay for ur own vehicle and insurance
61	allowing access to areas of all different people
62	Reduces the traffic on the roads.
63	saving gas
64	Transport alot more people for less gas, so less pollution.
65	Conserving energy
66	When they take people who can't drive where they can't go.
67	less emissions
68	saving money, its better for the environment
70	available
71	Save money on gas.
72	do away wwith vehicles and save on car insurance
75	It's great for people who don't have any way to get anywhere.
77	The benefit to the national economy of having mass transportation for everyone.
79	It would save money for indiviuals.
80	to relieve congestion
81	save gas money
82	the savings in fuel
83	cheaper
84	Reduces pollution.
86	no benefits

87	Benefits elderly and single moms who need to to get places and dont have the means of doing it.
88	energy saving
89	Saves fuel.
90	money savings
92	You can relax during your commute.
93	It would help families the economy and the environment
94	save on gas
95	dont have to drive, cheaper on gas
96	Saving on gas.
97	cost effective
98	it assist the elderly
99	Giving a lot of people ability to get to work or shopping by saving on gas.
100	availiblity
101	Reducing cost per mile to go somewhere I'm guessing.
102	Good for people with no vehicles.
103	EASY ACCESS
104	saving on gas costs
105	Allows access to things in the community that people otherwise may not have the ability to get to.
106	the cost is more affordable
109	GETTING FROM POINT a TO B
110	CLEARER AIR
112	Helps with greenhouse emissions.
115	good for people who do not have car and save gas
116	availablity
117	SAVE MONEY
118	cheaper fares
119	If there's a stop nearby it's convenient.
120	The cost is lower
121	CONVENIENCE
122	Alot of older people use it to get where they need to go.
123	pollution
124	lower emissions
125	saving energy/fuel
126	financing
127	Save on fuel.
130	Cheaper than driving
131	It would cut downon gas and help the environment
132	location of the stops

133	Save on fuel.
134	saving gas
135	It saves gas.
136	they get me where i go
137	ECONOMICAL
138	reduction in carbondioxide
139	It saves money and time in metro areas
140	cost
141	getting to where you're going
142	the shortage of fuel...it saves fuel
143	GROCERIES AND DOCTORS
144	pollution control
145	gas savings, parking becomes less of a problem, less pollution
146	gas prices and for people that are not able to drive
147	allows people to get to their jobs when they don't have their own transportation, kids can get to school
148	getting someplace
149	people able to get to their jobs that may not otherwise be able to afford it
150	reduces energy consumption
151	Helps Senior Citizens and disabled person
152	great for people who don't have caars
153	saving gas
154	NO PARKING
155	don't have to own a car
156	better for winter time when there is snow..safer.
157	senior citizens
158	More fuel efficient ways to get around
159	reliability
160	getting people back and forth to work
161	TIMELYNESS
162	getting tires off the road
164	THE PRICE
165	so i don't have to drive
166	CHEAPER THAN DRIVE
167	its were politician make there money
168	cost of gas
169	gas prices
170	improved impact on environment
171	get cars off street, lower emissions

173	in buffalo we had bus servives all the time, you offer transpertation to people who don't drive, senior citezens, that works for a lot of people. without the ability to drive they can't get anywhere
175	greener
176	the cost
177	more environmentaly friends
178	saving fuel
179	costs less, more convenient
180	Saves fuel
181	able to get from one place to another
182	work would be an assest
183	More people using buses than driving.
184	cheaper
185	to save money
186	Would not have to have a car along with its expenses.
187	Savings on fuel
188	not using gas
190	route go where need to go it notfeasible
192	The speed
193	savings
195	pollution control
196	think it helps polution, good for college students
197	cheaper
198	saving gas
199	people get on it instead of getting on the highway.
200	cheaper wayy to ride
202	SAVING GAS
203	less vehicles on the road
204	to move people from one place to another
205	probably carbon monxide pollution
206	BETTER FOR ELDERLY WHO CAN'T DRIVE
207	faster and quicker(flying)
208	wear and tear on roads
212	im assuming its cheaper than a taxi cab
213	in this town we have a senoir bus that takes you from door to door: senior citizen services.
214	gas savings
215	less impact on environment bc using less fuel
216	economy
217	COST EFFECTIVE
218	lower cost

219	get oon the bus at corner so it's not a burden to get on bus
220	save gas
221	having it available, being able to use it when i cant use my car
222	you don't have to drive evrey where you go
223	get u where you need to go when you need to get there
224	less pollution which saves resources
225	Convenience
226	price
228	Good for those who don't drive or those that don't have a car
229	accessibility
230	convienience
231	money/gas
232	relaxation being able to see country side more
233	Cheaper to get to work
234	cost effective
235	to get where you are going
236	carrying capacity can accomadate many persons instead of having many single trips taken
237	saves on green house percent/ reduce polution
238	better for the environment
239	Cheaper to get from point a to b.
240	it can get you some place if you cant get there any other way
243	CUTS DOWN ON GAS COSTS
244	available option
245	it cuts down on pollution
246	Not having to buy your own gas.
247	I DON'T HAVE TO PAY FOR GAS.
248	it would be fuel saving
249	BEATING THE HIGH GAS PRICES
251	cheaper
252	Provides a mean to get you where you need to go.
253	saving gas
254	cost
256	convenience
257	helps people that don't ahve vehicles and can't afford the gas
258	environment
259	Less Driving time
261	Better for the environment.
262	saving gas
263	lower dependance on oil
264	travel times/cheaper routes

265	CHEAPER TRAVELING THAN CARS
267	Good for people who dont own cars.
268	take more people and its cheaper
269	saving money
271	Not quite as expensive as gas
272	it gets more people in one convienance it saves parking and room for parking and save transportation on the highway
273	getting to where you are going safely
274	Cheaper than buying own gas.
275	pollution
276	allows people who can't afford a car to participate in external activites and decreases pollution(environmental) equally important
277	SAVINGS ON GAS
278	Cutting down on pollution
279	elimantes traffic jams
280	less money to go from one place to the other.
282	Less traffic.
283	cost effective
284	volume, less full
285	save gas money
286	Saving money.
287	it will save gas and money
288	the less cost to us
289	THE FARES AND LESS USE OF GAS
290	econmical and efficient
291	lower cost
292	The expense is less costly
293	Gets you where you need to go on time.
294	environmental benefits
295	Easy transportation option.
296	allows people to get around without the terrible price of gas
297	would be conserving our environment
298	less polution
301	Cheaper
302	dont have to drive and worry about parking
303	not having a vehicle payment
304	Helps people who cannot carpool.
305	cost effective
306	its free
307	Less air pollution.
308	It is cheaper than driving.

309	none
311	not as much gas
312	saving on fuel cost
313	not looking for parking
314	saving gas money
315	good for environment
317	energy saving
318	helps those withought cars
319	cheap
320	more civilized
321	Saves on gas.
322	It is much cheaper.
324	low cost
325	The cost is cheaper.
326	well in the city, the cost of riding and cost of going to and from.
327	IMPORTANT PART BECAUSE IT GIVES PEOPLE WAYS TO TRAVEL WHO DO NOT HAVE OTHER MEANS
330	it saves money
331	Its reliability.
332	for people that don't have transportation
334	gas prices
335	enviromentall take the emissions from the vehicles
336	Getting from place to place I guess.
337	to save on gas prices
338	the bus stops
339	economical
340	i guess using the system without having to use your own car.
341	consolidates the use of gasoline
342	You dont have to worry about insurance, getting car plated, and gas.
344	no worrying about driving
345	CONVININECE
346	saving ware and tear in the vehicla
347	fewer cars
349	cheaper than putting gas in the car
351	Saves the rider money.
352	SAVE MONEY
354	The cost is less
356	cheaper
357	SAVE MONEY ON GAS
358	less money
359	CHEAPER COSTS

360	Saving money.
361	that youcan go any where in the city
363	it takes me places when i cant see the road
364	The environmental issue. Does not pollute as much if everyone was driving their cars.
365	transport more people for less money.
367	handicap accessible
368	VERY ENJOYABLE
369	fuel
370	SAVINGS ON GAS
371	save gas and air pollution
373	getting vehicles off the road
374	You can get more people more less fuel.
376	It saves you money.
377	IT IS CONVIENT IF IT THERE FOR YOU TO USE
378	no liscense use public transit
379	gas prices
380	GOOD FOR SENIORS ONES ON FIXED INCOME
381	Serving many people.
382	less resources
383	Saving money.
384	price
385	FEUL SAVINGS
386	the cost
387	free gas
388	SAVING POLLUTION
389	SAVING WEAR AND TEAR ON MY VEHICLE
390	I wouldn't know because I've never used it.
391	les cars on the road
392	less pollution
393	saving money
394	Not having to drive and the gas prices.
396	cheaper
397	PEOPLE CAN GET AROUND WHO CAN AFFORD CARS
398	quickly and arrival. if had train it would b better
399	less gas money
400	cost
401	less traffic
403	reduce fuel consumption
405	taxi getting around
406	Cheap transportation, social benefits.

407	saves gas and pollution
408	less vehicles on the road therefore less gas being used
409	keeping on schedule
410	saves gas
411	Cuts down on air pollution.
412	SAVING ON FUEL
414	it's cheaper than driving a car
415	takes you where you need to go
417	Saving gas
418	save on gas
419	cheaper
420	not buying gas
422	a way of getting somewhere.
423	probably not having to pay for gas nothaving to worry about parking
424	Saving the environment.
425	cost
426	Buses probably, I don't know.
427	keep cars off the rode
428	save fuel and parking
430	horse and buggind
431	its cheaper
432	dont have to have a car
433	Better for the environment.
434	gas
435	TAKE YOU WHERE YOU WANT TO GO WITH OUT EXPLAINIG TO ANY ONE
436	We'd save the number of cars on the road.
437	being able call for public transit
438	get cars off the road
439	SAVE MONEY
440	quicker and more conveneiet
441	If it's convenient and it stops close to you.
442	That they run frequently.
443	save engery
444	cost
445	Save money.
446	Good for school children and seniors
447	Save money on gas.
448	it helps senior citizens
449	Gets you from place to place.
450	it saves money for the person that rides it
452	cost wil be cheaper, and reliable

454	TAKE YOU ABOUT ANYWHERE YOU NEED TO GO
455	saving gas
456	it saves fuel
457	easy to use
459	save gas,
460	cost saving
461	saving money
462	none
463	people that are unable to own a care, cant drive cant get from place to place
464	saving gas
466	lower cost
467	HELPS PEOPLE SAVE GAS. SAVES MONEY
468	getting to the doctor grocery store
469	cut down use of gasoline, independent on foreign oil
470	Less pollution.
471	CONVENIENCE
473	not burning gas hybrid
474	Save money.
475	The price.
476	bus is good for people who dont have, bus will take them to place they want to call
477	saving money
478	saving money and gas.
479	dont hasve to fight traffic
480	it takes you places
481	Cheaper way of transportation.
482	somebody else is druiving
483	more economical
484	more efficent per-person
486	to save on gas
487	Save gas
488	fewer cars on the road, less gas
489	saving on gas
490	CUT DOWN ON GAS USE
491	cutting down on pollution
492	Dont know cause havent used it
493	reduction of pollution
494	price or cost of driving
495	Lower gas use and c02 commissions, redudeced dependency on foreign oil

498	save money
499	decrease in cost
500	MAG LEV HIGH SPEED TRAINS
501	savings in fuel and the environment
503	Cheaper
504	less pollution
506	saving money on gas
507	Economic reasons
508	THEIR LOCATIONS
509	Cut down on gas.
510	the expence, the cost of it
512	less polluiton
513	save fuel
514	Less pollution.
515	convenience of saving wear and tear on vehicle
516	its easy
517	not having to drive some place, relaxing on the way there. this is very convinient.
518	Save on gas.
519	save energy, better off the enviroment
520	saving gas;saving the environment
521	Reducing are nations dependence on oil
522	saving fuel
523	Saves on gas.
524	cost savings
525	statiblity
526	CHEAPER THAN DRIVING A CAR
527	Time, use to live in chigago and to train
529	helps a lot of people when they don't have transportation.
530	Saving Fuel
532	convinience
533	dont have to drive
534	Save money
535	Not using your own gas
536	Saving fuel prices
538	probably, for people who need transportation and dont have vehicles.
539	for the environment
540	cheaper fares
542	dont have to pay taxes or insurance on your own vehivle.
543	accessibility
544	Saving gas.

545	can get you where you need to go and you're not using your own gas
546	better for the environment
547	saving me money
548	go back and forth to where we needed to go.
550	price
551	saving energy
553	helps poor people to get around in a more efficient cost effective manner.
554	its cheap
556	for the environment
557	saving gas
558	more economical
559	if you were able to use it all the time
560	getting somewhere quicky
562	energy savings
563	cost savings
564	being available for people in need
565	gosh it would save on envirnment. Convient in the winter
566	if it cheaper that drivin costs
567	the price value
568	Good for people getting to work.
569	Less expense.
570	dont have to pay gas
572	cost
575	it's there if you must go somewhere.
576	idk
578	Important for people who have no other way to get around.
579	saves money
580	availability, and the price.
581	Fuel costs, savings
582	Cheaper
583	people who dont have a car can have a way to get to work.
584	the safety, at the age i am
585	I know there are alot of people that need to ride the bus who dont have a licence. I never use public transportation.
587	economy
589	Saving gas money
590	get people where they need to go
591	it is very convient to me right now.
592	the best thing for people who don't have any other source of tranpertation available to them

593	cost
594	less conjestion in big city
596	affordability
597	for those who don't have a vehicle
598	saving money on gas
601	less pollution and save gas costs
603	easier on the environment.
604	save money
605	move alot of people
606	Very important to people who cannot drive anymore.
607	cost
608	environmental benefits
609	there,s a place for them over other forms.
610	the environmental factor
611	benefial for people who dont have car
612	Save Fuel
614	it would probably save a person gas, there wouldnt be as many cars.
615	saving fuel and having a good impact on the environment
618	Every body needs to get around better if they cant get around they cant get what they need. They took the bus services out of this town.
619	there would be less cars on the road
620	IT'S AVAILABILITY
621	saving on gas
622	saves money
623	Congestion of cars on the road.
624	conveniance
627	HELP THE ENVIRONMENT
628	Taking the elderly wherever they need to go, and its cheaper.
629	SAVES MONEY
630	for less people travel separately to thesame place
631	Having it avalibable.
632	Getting to where you needed to go without looking for a place to park.
633	environmental
635	TRANSPORTING BIG AMOUNBT OF PEOPLE TO DIFFERENT PLACES
636	to get ppl to work
638	To find a route that people thinks is important or acceable. Where they want to go. IN this city they change the routes, if people are going to use it they need to get familiar with it.
639	the cost
640	SAVINGS IN MONEY AND SAVINGS ON WEAR AND TEAR ON AUTOMOBILES

641	price is cheaper and availabilty to get in and out for the elderly
643	The price, dont know what else to say besides its cheaper than driving yourself
644	help the single or the elderly
645	To get to where you need to go in the event that you dont have a drivers license.
646	SAVES MONEY ON GAS
650	important for the elderly to get around
651	cost
652	cost saving
654	ENVIRONMENTALLY FRIENDLY
655	ENVIRONMENTALLY
656	there are too many handicap that need that bus service
657	save gas
658	to people who dont have cars its more benecial
659	it comes to my house
660	saving money on gas
661	depandable
662	Low cost so that every one can use it.
663	ECONOMIC BENIFITS
664	The only time I would use it was for airline long distance.
665	from city to city
666	saving environmental emmitions fromcars and also saving gas, be able to get tp places without getting rides from poeple
667	saving money on gas
668	getting around without a vehicle
669	because of gas prices and pollution
670	It is dependable.
671	Giving up a car
672	saving gas
674	SAVINGS ON GAS MONEY
675	cost
676	good for the environment
677	transportation available for people who can't affor d autos
678	If people work in the city it's very important to have public transportation available to get to work, that's a good thing...but like I said we don't have public transportation around here.
679	Consolidating rides
680	saving on money.
681	BETTER PRICED
682	for people are unable to have vehicles

685	the convenience
686	saves gas
687	gives poor people a chance to get to where they need to go
688	savings and cost
689	Cost.
690	dont have to drivekids to school
693	for lower income people to get to and from work and for people getting back on their feet
695	GETTING TO WORK CONVENIENTLY
697	helps people that cant or dont want to drive
698	less amount of gasoline used
701	Some people cant' drive so it provides them access to move.
702	CONVENIENCE
703	it keeps more vehilces off the road and makes room for other people to get around
704	It's cheap, you dont have to bother with parking
705	For City People to get around.
706	For people who don't have transportation,
709	gets people where they need to go
710	Cheaper than using car, in the city.
711	The cost (probe) it's cheaper to get around.
712	people can travel without owning a car.
713	alot of people with limited acces can use the community service
714	Energy wise.
715	SAVE ON MAINTENENCE AND INSURANCE
716	conserving natural resources
719	if your car is broke down
722	Those who do not have vehicles.
723	Cost efficient.
724	gets from point a to pint b
725	Saving money from gas.
726	saves gas money
727	for people who do not drive to be able to go to the next big town
728	The price for the service.
730	would not have to worry about parking
731	save gas and emitions
734	having it avl if i need it
735	The availability.
736	bc public transit can handle more than 5 indiduals and it can be less costly

737	To be able to be close to your home so you don't have to walk to far to use it and it can take you where you need to go.
741	Enviromentaly friendly, Save money on gas.
742	convenience
743	cheaper
744	Cut down on the amount of energy used.
745	cost, if it were aavaliable it would be a better cost than driving
746	Not payin' the gas.
747	the people in town can get around without having a car
748	the biggest benefit is cost and avialability
749	Cant other travel, it's a benift for others.
750	The cost of service.
751	fuel effieciency reduce gas cost
753	pricing
754	saves on fuel
755	saving costs
756	SAVES ON THER ENVIRONMENT
757	it is real good for the elderly who cant drive
758	saves the wear and tear on your vehicle
759	Energy savings.
760	Cost.
761	conserving energy
762	to old to drive
765	not having to pay for gas
768	Good for people in town.
769	the cost savings
771	You save gas
773	saving energy
774	reducing co2 emmissions
775	saving you money on gas
776	help save cars on the road carbon
778	Saving on gas.
779	less emmissions
781	LESS USE OF YOUR OWN VEHICHLE
782	save gas prices
783	saving money on gas
784	cost, it's cheaper to ride the bus.
785	That it would allow people to get to work that don't have other forms of transportation.
786	people that doesnt have license or cars.
787	Cost efficitnt.

788	For the elderly (probe) the elderly needs a way to get around to go to the doctor and grocery store if they can't drive
790	Not having find gas.
791	Buses.
793	the usi shuttle helps the students get back and forth and allows them to exercise. it is good for the people who have to allow public transportation.
794	saving money
795	Save you money.
797	easier for senior citizens to gett around.
798	The economy and thats the main thing.
799	Getting to work.
800	availability
802	it allows plp to get from a to b
803	I HELPS SAVE GAS
804	being able to get you to places he needs to go
805	pollution. cost. convienence
806	Saving gas.
807	uses less gas
808	save on gas and traffic.
809	going back and forth to work
810	CHEAPER THAN GAS
811	helps have less cars on the roads and helps people who dont drive have a way to get around
813	It is cheaper than driving.
815	saving energy
817	less automobile insurance and gas savings
818	the more we use the bus then maybe more people will get out of cars and we would get more buses. if there were more routes,ppl would begin to sell their cars and use it to profit to use it as an adavantage to a profit to their home.
819	saving money
821	Helping the environment.
822	good for people don't drive or have enough money for gas.
824	saving money on gas
825	getting plp to appointments
826	saving money and increased safety
828	saving gas money.
829	cost savings
830	ease of not having to park
831	to cut down on the usage of private cars.
832	gas conservation

833	saves gas
834	Conserves energy/pollution
835	Probably the effect on the environment.
836	SAVINGS IN GAS
837	gas prices, parking
838	save energy.
839	don't have to drive, savings on feul costs.
840	the cost of movin ppl would be cheaper if yu moved more than one at one time
841	Saving gas would be good.
843	saving money and emissions
845	less cars on the road
846	avaliability to get places
847	reduce trafic congestion
850	convenience
853	people have no way to get around. very important for older people to get around especially me.
856	I think environmental.
860	Saving money
861	It would be a little cheaper.
862	Probably if it's done right, we have some hybrid buses here, probably the environment. Emissions.
863	WOULD NOT NEED A VEHICHLE
864	it is very economical
865	helpfull for people that dont drive
866	save money for parking walking the public transportation as a form exercise
867	SAVINGS ON FUEL.
868	Not paying for gas.
869	Economy
870	It is better for the environment, keeps more vehicles off the road.
871	Call pooling purposes.
872	financial
873	saving money
876	not having to worry about driving
877	rapid and energy saving movement of people
878	the continuity, has to be frequent and be able to go where you need to go.
879	More people being transported back and forth to work instead of everybody just driving their own vehicle.
880	to be able to do thingd without using own car
881	fuel cost and savings

882	cheaper
883	Less congestion, traffic.
884	u can get to where u need to go at a reasonable price
886	less polution
887	it's a good thing
889	convience if available
890	reduced use of automobiles
892	You dont have to park when you take the bus.
893	Well it would cut down the cars, the use of gasoline, such as that.
894	the cost and reduce congestion on the street, its safe, and reduces pollution.
896	saving the ozone layer
897	save gas leave cars parked at home.
898	those who need to get to their jobs
899	Availability.
900	hood way to get from point a to b reasonable price.
901	Saving money on fuel cost.
904	saving money
907	saving national resources and reduces pollution
908	inexpensive
910	SOMEONE ELSE DOES THE DRIVING
911	help people who live farther out and some downtown traveloers
912	It is alot cheaper than driving myself.
913	savings on gas
915	Probably less pollution.
916	helpful to a lot of plp
917	Saving money on gas.
919	actual transportation
920	NOT HAVING TO USE A CAR
921	save gas
923	helps community. grew up with rapid trans system. its wonderful just don't have it here. been in every major city, europe, its amazing that we don't have it. Its an embarrasment.
924	It saves gas.
925	transp. for people w/o cars
926	saving gas
928	cost savings
929	I think we should have it more, and use trains more often, there will be less cars on the road.
930	it goods for ppl who aren able to afford a car and
931	Helps people who dont have any other way to get around.

932	gives certain amount of people opportunity to get around
933	Helps with air quality,cheaper aswell, you can drink and not have to worry about driving.
934	low cost
935	time schdules
938	few cars on road saving fuel.
939	Convieniance.
940	not having to spend money on gas
941	Its comunal its greener
943	save on gas
944	Saves on gas.
945	mobility
947	Decrease in pollution.
952	the effect on the envirment a positive and make more space on the road
953	safety
954	Saving gas
955	save money
956	it's cheaper and fewer cars on the road
957	saving gas
958	good for people that cant drive
959	reduced immestions
960	save gas get you where u want to go
963	enivorment
964	The cheaper cost
965	wheelchair accessible transportation
969	people that cant afford the gas prices
970	saves vechicle n insurance
972	the elderly
973	people that cant afford
974	its cheaper and its better for the enviroment
976	Helps low income people get to work.
977	option to get places
978	the enivormenatal part.
979	moving several loads at the same time
980	for commuters to meet and go to work
981	cutting down on gas
982	that she can travel independently without bothering family
984	save money
985	the enviroment
986	its cheaper

988	less gas use
989	cuts down on polution
990	Saving money.
992	gas
993	don't have drive and save gas
994	save money
996	people who dnt have cars to get
997	People who can't afford to buy a car - it's available for them.
999	Not having to purchase gas and drive my slef.
1000	Cheaper than owning your own vehicle.
1001	convienance
1002	cheaper
1003	Savings on gas andinsurance.
1004	get those to and from on/ helps those that are finacially challenged and disabled
1005	getting you to and from the places that are important to you
1006	For people who dont want to own cars its a good advantage
1007	less use of natural resources
1009	saves money
1010	save money save environment
1012	saving money
1013	Alot cheaper because I would be saving gas money.
1014	cheaper than driving distance
1015	less traffic
1016	getting around cheaper than gas prices.
1017	good scheduling
1018	go to the store and get
1019	for people that live on minimum wage
1020	saves on fuel consumption
1021	It can move a lot of people easily/efficiently.
1022	Well there's a lot of people that don't have vehicles and it's almost necessary for them to have transportation.
1023	availability to get round
1024	save gas
1025	help disabled people
1026	saving fuel
1028	saves money
1029	save on gas
1031	Well, it'd be handy, but there ain't gonna be one come by my place.
1032	problably to save gasoline.
1033	It good way to get around.

1034	convience for people who can get access to it.
1035	Reducing congestion on the roads.
1036	get you places you need to get to
1037	saving in money
1038	not having to drive yourself
1039	being able to get out and around.
1040	ACCESSIBILITY
1041	save gas, save mile
1042	for people who dont have their own transit
1043	help ont he gas prices
1044	help alot of people who dont have any other way to get places.
1045	COSTS SAVINGS
1046	saves gas money
1047	environmental
1048	It would save me money.
1049	saves money and saves the environment
1050	elimate traffic
1051	saving on enviroment
1052	It saves us on gas.
1053	Cuts down the traffic on the road.
1054	peopl that are older can get around
1056	better for the environment
1057	don't have to pay for parking
1058	able to go placew even if no car
1059	fuel savings
1060	wouldnt have drive
1061	that it would be available to get me where i had to go,
1062	Cheaper than gas.
1063	cheaper
1064	environment less car
1065	availability
1066	easy access to certain places
1067	Saving on gas.
1068	saving money
1069	Probably decreasing traffic.
1070	cheaper than putting gas in the car
1071	save money
1072	saving gas
1073	saving gas
1074	to help the elderly people who are unable to drive.
1075	prices are onot as much as driving. convient if it was all over

1076	That it gives people the availability to choose for people that can't afford a vehicle to have transportation.
1078	cheaper/ less polutions
1079	conveinence
1080	gets allot of people who cant have or afford cars to work
1081	helps with getting to places
1082	gets you where you wanna go.
1084	the price
1085	Gas savings.
1088	having good routes for people in a residential area.
1089	gas saving
1090	Probably the most that I can think of is there'd be less pollution in the air because there'd be less vehicles running.
1091	i can do what ever i want to do while im riding
1092	save money
1095	carry more than one person,
1096	enables people who dont have cars to get around
1097	I SUPPOSE, IT WOULD PROBABLY CUT DOWN ON ALOT OF POLLUTION
1098	I guess availability.
1099	saving fuel
1100	if you dont have any other way to go and your in a big city i think its very important
1102	CITY COMMUTING
1104	helps elderly, easy to get
1105	Saving money
1106	cheaper than gas
1108	for those who dont have their own transit
1109	being able to save
1110	saving money on gas
1111	saving money on fuel
1112	it helps transport those that can't afford a vehicle
1113	enviromental reasons, less gas
1114	Getting cars off the road, particularly in metropolitan areas.
1115	Saves the economy.
1116	save money
1117	good for the older people without a car
1118	to me it is a means of going anywhere. to the doctor shopping.
1119	vital for those who dnt have a vehicle, eficicent for those in big city
1120	accesability
1121	accessiblity to get on the bus
1122	save money

1123	save money, convenient
1124	It would help the economy to take more automobiles and so forth off the road.
1125	you can save money, its cheaper than driving.
1126	making transportation available to everyone regardless of thier incomce and reducing traffic congestion
1127	vital for pl who dnt drive
1128	cost
1129	With prices of gas getting higher and higher it'd be more economical to have the public transportation.
1131	it would be cheaper if it was available.
1132	the area that the bus route goes into
1134	Benefits people who do not have a car.
1135	reduce population
1137	the fact that you can save money
1138	not having to find parking place. worry of traffic
1139	Saving fuel.
1140	environmental impact
1141	someone else is driving
1142	cheaper
1144	reduce lots of pollutins
1145	save workers alot of gas
1146	It would save on your gas and your car.
1147	GETTING AROUND EASIER AND CHEAPER
1150	cutting back on gas usage
1151	Pickup up and takes you wherever you need to go.
1152	price
1153	SAVING GAS AND LESS POLLUTION
1155	it would be handy if tranportation was broken down
1156	It is economical.
1157	wouldn't have to drive
1158	Price.
1159	save gas
1160	Saving gas
1161	overall cost and responsibiling - wouldn't have to keep up with maintenance. which is cheaper than natural driving
1162	more economical
1163	Reduces the amount of traffic on the road.
1164	Less expensive than driving
1165	availability for peoplw with no vehicles
1166	Living near it/close to where i work

1169	cut down on gas
1170	saving gas
1171	cheaper than driving
1173	Important for the people who dont have vehicles.
1174	not using my own gas to get places
1175	saving gas
1176	cost
1177	saving on gas
1178	for ppl who dnt have cars
1179	It is cheaper than driving.
1180	cuts down on pollution
1181	savings in money
1182	conveniance
1183	helping people thats underpriviledged or doesnt have enough money to get around
1184	help decrease polution
1185	beneficial for older individuals
1186	no more mass pile ups. lets some one else do the driving
1187	reliability
1188	It is cheaper than driving your car.
1189	less conjestion on the streets
1191	dont have to get someone to take me places
1192	get where you want go when you want to go
1193	good for ppl who dnt have any other ways to get aorund
1194	less emissions
1195	gas
1197	save money and missions
1198	reducing congestion on roads , pollution and fuel use
1199	Benefits people who cant drive themselves.
1200	not having to drive in traffic
1201	saves on energy, gasoline, less emission and saves money
1202	saving money and pollution
1203	availability for people who dont own cars and also for people witrh disabilities
1204	price
1205	save gas
1206	people that cant have cars can get around
1207	saving money and convinience
1209	GETTING AROUND EASIER
1211	reduction of gas use/pollution
1212	Saves money

1213	less cost
1214	cutting back on fuel use
1215	not worrying about parking and conjestion
1217	COSTS SAVINGS
1219	saving of gas emissions
1220	saving fuel
1221	availability
1222	saving fuel less fossil fuel
1223	transporttation for handicapped, elderly and those that can't drive or don't have a car
1224	population
1225	I EASY FOR TEENS TO GET TO WORK
1226	less traffic
1228	saving gas
1229	Saves money
1230	good for people who dont have travel means
1232	For elderly people
1233	BETTER TO GET AROUND IN BIGGER CITIES
1234	reducing carbon emissions
1236	schedules
1238	save gas money
1239	cost
1240	Supplies transportation to people who dont have a car or cant afford one.
1241	saving money
1242	low cost and availability
1243	it should be convenient
1244	saves energy
1245	it reduce road congestion
1246	enviromental
1247	Safer for our envireonment.
1248	not having to drive yourself
1250	good for ederly and people who cant aford vehicles
1251	reduction in transportation costs
1252	cheaper
1253	efficiency
1254	the convenience
1255	Another way to go.
1256	safer and save money
1257	The time.
1258	if we had buses people could get around for sahopping and whatnot

1259	Not having to put up with other drivers.
1260	proximity
1261	Convenience on having bus on schedule.
1262	for the poorest amoung us it provides them a way to get to where they are going
1263	less environmental pollution
1264	Saving money on gas
1266	saving money
1267	Lower Cost
1268	With gas prices now, public transportation would save money.
1269	cut down on traffic and crowding on the hiways
1271	save on gas
1272	if people don't have a car they don't have to walk
1273	economical
1274	green house gases
1275	Not having to pay car payment/insurance
1276	for people who use transporataion and dont have any vehicles.
1277	it is cheaper
1279	low cost
1280	Saving of gas/emissions
1281	the cost
1282	the environmental benefits.
1283	cheaper
1284	Relax while someone else does the driving
1285	cost
1286	conserving money, its cheaper to ride the bus.
1288	conservation, environemenatl
1289	people getting to work
1291	Economical.
1292	reduce air pollution
1293	enviromental benefits
1294	availability
1295	provide transportation for those without vehicles
1296	less pollution
1298	Helps people to get where they are going
1299	convenience
1300	reduced traffic load
1301	with the gas prices, it may be cheaper to take publc transport
1303	eliminates driving
1304	for people to get back and forth to work.
1305	it will help me get to work

1306	Spending public money.
1307	Save my gas money
1308	in layfayette they go everywhere
1309	not having to drive oneself
1310	when you dont have no way to get to work then 2 dollars can get you far.
1312	Gas and Parking issues.
1313	if its cheaper for people
1314	cheaper
1315	its cheaper
1316	gets you where you need to go
1317	for those who can't afford to purchase a vehicle it gives them an option of going anywhere they need to go
1318	less gas usage
1319	saving gas
1320	more economical
1321	in case you have to go somewhere
1322	Takes more cars off the road
1323	for people who cannot drive into town
1324	convenience
1325	less vehicular traffic
1326	no trafffic headache.
1327	minimal costs
1328	cheaper than driving
1329	homebound people can get places
1330	no gas prices
1331	gas prices
1332	people dont have to own their own automobile
1333	cheaper
1334	less expense
1335	efficiency and economically benefical and evirnmental
1336	mass movement of people and small amount of energy used
1337	to conserve our energy
1338	benefits those that can't drive or don't have vehicles
1339	just getting there and getting back
1340	save energy
1341	gas prices
1342	It would get you to and from a place and save you on ware and taer on your vechile.
1343	decrease fuel emiisions
1344	Getting to differnt places..Cheaper too

1346	wear and tear on personal vehicles
1347	save money by using it
1348	Cost. Avoiding spending more money on gas.
1349	helps needy people who dont have any way to get around
1350	availability
1351	cheaper
1352	Less wear and tear on your vehicle and not haveing to look for parking.
1353	that it's cheaper
1354	saving cost.
1355	it's more economical than using a car
1356	No worries about the driving
1357	there's a lot of people who can't affor automobeles and can't and can ride the bus
1358	Get the person to and fro to work.
1359	i think its cheaper to drive public trans to work than the car
1360	it would save poeple money and you wouldnt need as much gas.
1361	saves money
1362	energy saving.
1363	the convenience
1364	Conserving gas
1365	Saving money, economics.
1366	Saving money.
1367	helps the elderly.
1368	saving money
1369	It probably would save money
1370	ecological reasions, less pollution
1373	SAVES ON THE EVIRONMENT.
1374	People who don't own vehicles
1376	not worried about using up gas:cheaper
1378	if you have it, all those cars aren't running and with suppplu and demand the prices will go down and there will be less emitions in the air
1379	cuts down on too many cars on the road
1380	having someone driving for you
1381	the frequency
1382	Cut down on pollution
1383	save fuel
1384	CONVENIENCE
1385	the saving on gas.
1386	Probably cheaper like money wise
1387	energy savings and environmental conservation

1388	I think it can reduce the number of automobiles on the street, traffic, pollution
1389	Save fuel.
1390	getting me to where I need to go, so I can go to where I need to.
1391	Saving gas money
1392	provides transportation for those that don't to a way to get around
1393	people don't lhave to own their own svehicles
1394	beneficial for people who dont have cars
1396	Public transportation to Indinanpolis. I do not have public transportation to Indy.
1397	That they (would)take you where you can't drive yourself
1400	helps low income bracket
1401	Availability to get where we want to go and back and the price is cheaper than a cab
1402	not having to depend on others
1403	TO SAVE MONEY
1404	benefits those who cant drive
1405	if you dont hva a driver's license
1407	for people with n cars
1408	saves people money and helps the environment.
1409	our environment, the atmosphere the air we brath to limit the vehicles on the road would increase the air quality.
1410	i guess it's good for ppl who cnt afford a car
1411	They get you where you need to go
1412	I think they're very effective in large urban areas (probe)you use less oil.
1413	saving on gas and parking
1414	helps people that don't ghave vehicles
1415	provides transportation for those that don't have it
1416	gas prices and convenience
1417	it would be cheaper than buying gas.
1419	keeps the highways less crowded
1420	You wouldn't have to be keeping up your tires
1421	if you don't have a vehicel
1422	cuts on gas use.
1423	in my case we are both retired it would be nice to be able to have something close to where we could use it
1425	saving on gas.
1426	financial
1427	you can go almost everywhere.
1428	less cost
1432	DECREAS IN TRAFFIC CONGESTION

1433	the cost of gas
1436	mroe than one persone being transported so less vehicles on the road going the same way
1437	fuel savings
1438	for people that work to get around
1439	Saving money
1440	It would make an easy way to get downtown
1441	some have no other form of transportation and energy saving
1444	for helpign plp who dont have the acces of acces to vehicles
1445	freedom
1446	cheaper
1447	CHEAPER
1448	saving money
1449	being able to get out of the house
1450	for those who cant afford to drive
1451	potential to move larger numbers of people and increase environmental benefits by decreasing vehicular traffic
1452	it would save gas
1453	Saving gas
1454	Saving gas money.
1456	our dependency on foreign oil.
1458	More economical,lower gas price
1459	save money
1460	service the greater number of people
1462	save the nation the fuel
1464	lack of worrying about car keeping up all the time
1465	for people that cant afford their own gas
1466	There's not too many around; they need more.
1467	helping the environment.
1468	SAVING FUEL. LESS WEAR AND TEAR ON VEHICHLES
1469	"i dont have to drive"
1470	I dont have to use my car. Contribute to evronmental causes.
1473	It's relieves a lot of traffic congestion on highways.
1474	those that are not able to afford prices
1475	price-cheap travel
1476	to get back anf forth to work.
1477	saving on gas
1478	help people who can not afford cars
1479	it gives everyone an opportunity to get where they want to go
1480	the trains, the Aimtrack.
1481	HELP LOWER INCOME PEOLPE

1482	saving fuel
1483	enables people who cant afford to travel
1484	It would cut down on too much stuff goin' up in the atmosphere 'cause you have more people on one bus.
1485	so more people could use it instead of their own vehichles its better for the environment.
1486	it helps to save money
1487	inexpensive
1489	cut down on vehicles on the road
1490	cheaper transportation and less emissions
1491	To keep up with the rest of the world.
1492	reduce the need for an automobile
1493	ecological benefit
1495	cost
1496	save alot of money
1497	scheduling
1498	that its better for the environment -
1499	less cars on the road
1500	less expensive
1501	save money
1503	efficiency
1504	to conserve fuel for the future generations
1505	for me it would be money benifits by saving gas
1506	save on gas
1507	Availability and convenience.
1508	they are reliable
1509	cheaper to go long distance
1510	convenience for elderly
1512	Avalibitity.
1513	cost
1514	EASY ACCESIBILITY
1515	environmental
1518	gas saving
1521	it decreases pollution
1524	decreases pollution
1525	Save on fuel.
1526	Saving money for the person who is low income
1527	saving gas
1530	gas savings
1531	price
1532	reduce traffic

1533	GET PEOPLE AROUND CHEAPER
1535	You can haul more people cheaper with mass transit.
1536	saves the environment.
1537	just to get to go.
1539	lower cost
1540	I think the bus comes once every 20 minutes they told me, that's probably the biggest benefit
1542	its probably cheaper when you put togehter gas and insurance costs
1543	cheaper
1544	gas savings
1545	cheaper
1546	the savings on gas the money you would spend on gas. It would have top aceptable in time.
1550	The savings on gas.
1551	the environment
1553	saving money
1554	helps saves money and gas consumption.
1555	it cost effective
1556	There are less cars on the road.
1557	dont pay for gas
1558	helpful and easy
1559	impact on invironment
1560	help people that do not drive
1561	the availability
1562	saving fuel
1563	less emissions
1564	not having to drive
1565	For somebody that can't get around it will get them to important places like doctors and grocery stores
1566	environmental freindly
1567	saves you a lot of expense
1569	very economical
1570	pollution
1571	Avaibiltiy.
1572	cheaper than driving
1574	the safety.
1575	save gas
1576	Conserving energy.
1577	save air pollution
1579	savings in fuel
1580	getting back and forth to the doctor

1581	That it saves you money on gas. And we don't have to go out and buy another car.
1582	saving gas
1583	getting plp to and from work
1585	cheaper
1586	Not wasting your own gas
1587	lot of people who don't have cars.
1588	cuting down on fuel consumption
1590	Save money.
1591	you save money
1593	having it available. even though its a pain in the a**. has to walk 1 miles 2 times a day.
1595	Probably not having to buy the gas.
1597	Less cars out on the road.
1598	The gas that it saves people
1599	I believe you would save on your fuel if it were available year round.
1600	plp who dint have autos at their acces can use public trans
1601	saving on congestion of vehicles
1602	24 hr service
1603	Get you where you need to go.
1604	The excessability
1605	keeps alot cars off the road/ don't worry about parking
1606	GOOD FOR THOSE NOT ABLE TO DRIVE
1607	Assisting those without vehicles or that can't drive.
1608	cost and getting there
1610	population
1611	Ease of use.
1614	the pepole who cannot afford otherwise would need it to get around.
1615	good for older people
1616	FOR THOSE THAT CAN NOT AFDFORD THIER OWN TRANSPORTATION.
1617	Less pollution.
1618	not having to drive
1619	Saves you gas.
1620	cost
1621	to be able to get around
1622	saving money
1623	limited population
1624	not having to pay for gas
1625	Helping with pollution.
1626	good services.
1628	the environment

1629	If you're drunk you can get there safe
1630	easy access
1631	REDUCE DEPENDENCE ON FOREIGN OIL
1632	availabily to lower income peopel to use buses
1633	that its clean and on time.
1635	getting to work
1636	get transported
1637	not having to drive, not having to buy gas.
1639	dont have to pay for gas
1640	to save gas
1641	Cheaper.
1642	Helps us reduce our depency in foreign oil
1643	Does not create as much pollution.
1644	it gets plp to where they are going cheaply
1647	save energy
1648	ease of use
1649	great if ouy have no vehicle
1650	Not fighting traffic or buying gas.
1652	Cleaner city
1653	for those who cant afford vehicles or transportation of there own.
1654	economy of scale
1655	conserve resources, protect environment.
1656	if you dont drive its wonderful.
1658	Wouldn't have a car payment, wouldn't have insurance, wouldn't have to pay for gas.
1659	min. cost of private vehicle use
1660	economic value of it . It's cheap
1661	THERE FOR THOSE WHO CAN NOT AFFORD A VEHICHLE
1662	to save money
1664	Gas savings and maybe environmental savings.
1665	getting back and forth to do bus and wk
1667	to go to work
1668	Saving gas mileage. Not using your own vehicle -the wear and tear
1669	the economical price
1670	people who don't have transpo
1671	saving money on gas and ppl who do not have car can still go to work
1672	Saves gas
1673	SAVES ON HTE ENVIRONMENT
1675	for the elderly to get around.
1676	not having to out wear and tear on your car and gasoline
1677	Availability.

1678	Avoiding traffic
1679	saving money and envt.
1680	benefit older people
1681	saving money
1682	Cheaper.
1683	it saves u all that money everything month that u would spend on gas if u had to drive ur own vehicle
1684	save money
1685	To conserve onmoney
1686	gets you where you need to go
1687	SAVES MONEY
1688	trains that go through cities
1690	Less nerve racking trying to drive in some of the traffic.
1691	dont have to sit in traffic.
1692	SAVES MONEY AND TIME TOO
1693	getting people to work
1694	cost is cheaper, less gas
1695	its cheaper than to use an a car
1696	cuts down on the airpillution and it one vehicle that more than one person can unilize.
1697	less stress
1698	saving gas
1699	not having to drive
1701	it helpful for people who want to save money on gas.
1702	saving gas
1703	lower cost and convience
1704	Probably bus.
1706	none
1707	Gets mass amounts of people to where they want which reduces the amount of cars on the road.
1709	SAVES NATURAL RESOURCES
1710	great for the elderly who have no other way o f getting around or the handicap or those on a budget
1711	cut on the gas consumption
1713	energy rescource savings
1714	If you're anywhere by the routes it's handy, but if you're not, you're out of luck.
1715	save money
1717	save money
1718	its cheaper than driving your car
1719	saving money

1720	Can take you to a lot of places you may need to go.
1721	expense
1725	polution and saves money
1727	cost effective
1728	you dont have to drive
1729	to save on fuel and conserve energy
1730	Saving gas
1731	don't have to have insurance or your own autommobile accidents and liabilitty
1732	no spending money on gas
1734	Takes people who dont have a car to get where they need to go.
1735	cheaper
1736	cost savings
1737	make it easier to get around
1738	economical
1739	that it would help reduce the cost of gas and help people who are elderly that shouldn't be driving
1740	The most economic way to travel for people who have it available to them.
1742	Its always on schedule.
1743	less pollution
1744	save on gas
1745	the ability to go without having to drive
1746	cheaper saves earth fuel and less people on roads
1748	cost savings
1749	Lowers emissions
1750	it's nice to know we have it andi would use it if i couldn't drive anymore
1752	cheap
1754	More people transported for less money.
1755	for people who dont drive
1756	save money
1757	to get a ride
1758	Keeping more cars off the roads.
1760	leaving the driving to someone else
1761	environments
1762	not needing a vehicle
1764	Saving everybody money.
1765	the environment, and saving us of money.
1766	people need it
1767	It'd be cheaper than driving.

1768	Makes the environment better with less cars on the road.
1769	That you're not paying the wear and tear and gas on your car.
1770	its really nice if you have a short distance to go to work and to seniors who cannot drive
1771	No wear and tear on your own car.
1772	going to places that bus will take me
1773	less cars on the road
1775	someone else is doing the driving your not and you dont have to buy gas
1776	be able to get around and dont have to stay home
1777	it avoids traffic and is easier to get down town
1779	it would help the environment
1780	If you didn't own a vehicle it'd be the way to get around.
1781	carefree, bus driver would be responsible for wrecks on the road
1783	Saves gas
1784	you will be able to go some place
1785	it helps some people.
1786	Probably it saves you money, or it should.
1787	gas prices, to save money.
1788	for those people who dont have they can get around
1789	it saves gas and it helps people get where they need to go
1790	allows within city to get around without worry about parking
1791	Less people on the highway which in return means less gas used.
1792	not having to have vehicle
1793	saving of energy
1794	Saving money on gas.
1795	money saving
1798	cost
1799	people who cannot afford trans can get around
1802	for older who doesnt have any other way of getting places
1803	it allows the comunity people to be able to operate on a daily basis
1805	That it allows mobility for people who otherwise couldn't get places.
1806	to save gas.
1807	convinient
1808	convenience and cost
1809	ther is not as many vehicles on the road
1810	it would save people money and the environment.
1812	The city buses are there to pick you up if you're there at the right time.
1813	mobility, and lower costs.
1815	safety
1816	less pollution

1817	helps people who cant afford a car or cant drive
1819	reduce pollution
1820	providing access for alot of folks who use it.
1821	help environment help people out with gas
1822	saves gas
1823	It is cheaper to use public transit/
1824	keeping traffic down
1825	Probably energy conservation.
1826	Not having to deal with the traffic.
1827	The bus.
1828	environmental benefit, and less cars on the road.
1829	Less road rage.
1830	Cost saving.
1831	the price, the coveniece
1833	its cheaper it would probably cause a statement with the oil companies
1834	elimination of traffic
1835	Saving money.
1836	the cost savings, convience.
1837	Saving money on gas.
1838	saving money
1839	enviroment
1840	fewer cars on the road
1841	Less conjestion on high way
1842	Don't have to pay for expenses that have to due with using a car.
1844	Cheap
1845	You can travel at a much cheaper price.
1846	not having to rely on other people
1847	more fuel efficient, cut down the traffic
1848	price
1849	Cheaper than driving.
1850	provideing a method of transportation to low income individuals who wouldnt other wise have it available
1851	cut down on vehicles on the road
1852	enviroment
1853	convenient
1854	cost effective
1855	better on the environment
1856	money savings
1857	Wear and tear on vehicles.

1858	cheper way fpr person to get where he want to go, cheaper than own vehicle and insurance
1860	Save money. Convenience.
1861	saving money on gas
1862	not having to drive
1864	it cost savings, money.
1865	I don't have to drive.
1866	cheaper
1867	saves money
1868	benefits people going together
1870	cost
1872	A bus.
1873	good or people who dnt have gas
1875	Probably the cost of it.
1878	if work convient and if was close i would
1879	Costs.
1880	It would be a must have, because there's a lot of people who don't have vehicles and it would be the only way they could get to work and stuff like that.
1881	cost
1882	cost it cost less to ride than it would to drive your own vehicle
1883	saving gas
1884	more economical you can transport per gallon of fuel
1886	Saving money.
1889	price being reasonable
1891	benefit people who have disabilties and who to not have cars
1894	it would certainly help so you wouldnt have to spend it on gas
1895	cheap for people save money
1897	save money
1899	conserving energy
1900	saving on gas
1901	convient
1902	transporting alot of people
1903	its better for the environment
1904	saves money on gas
1905	benefits the disabled to get around.
1906	cheaper
1908	convenience
1909	convenience
1910	reliability
1912	saves money

1913	save money
1915	less polution
1917	less emissions
1918	save on gas
1920	It would take advantage of geographic surroundings; large centers and it gives us old people an opportunity to go places we wouldn't go otherwise.
1921	gets congestion out
1922	It is very important for people who don't have cars.
1923	saving on gas
1924	Not fighting with traffic.
1926	Keeping additional cars off the road.
1927	fuel savings
1928	Going to the supermarket.
1929	Access to work and jobs.
1930	Cost effective for working families.
1932	Lessening of pollution.
1933	Cost.
1934	if you dont have a car provides with with transportation
1935	Cheaper transportation.
1936	Cheaper.
1938	money
1939	getting to the places
1940	Economic.
1941	way to get around when u dont have a car
1942	It would help a help a lot in gas prices.
1943	Environment.
1944	cost
1945	Saves on fuel.
1946	convenient
1947	availability
1948	Very Convenient.
1950	Hours that meet with people's work schedule.
1951	Convenient.
1952	For those who work it would be a savings in parking and road traffic.
1953	consentrated portion of the city.
1954	It would be cheaper and more convenient.
1955	it provides transportation for those who cannot offord vehicles or those whyo dont have them.
1956	The carpooling concept of it.
1957	Convenience. Someone else gets to drive.

1958	Increased efficiency.
1959	you dont have to worry about gas prices.
1960	It gets black people up to Fishers to work at the McDonalds.
1961	the availability.
1962	for those who dont have cars or who are unable to drive it helps them get around.
1963	it saves gas and having to find parking, just all savings.
1964	the location,
1965	for those who need it to get back and forth to work.
1966	less traffic congestion.
1967	Energy conservation.
1968	Convenience.
1969	It gets you where you want to go when you have to go.

Q8. What do you think is the biggest drawback of public transportation?

Respondent ID	Q8
2	cROWDING
3	restricted by the schedule.
4	Some people on the bus are people who steal, or doing drugs, or illegal activites which makes it not safe.
6	covinience
10	air pollution
11	it is unreliable but i dont think there is anything they can do about that.
12	pollution and high cost
13	you can only go certain pllaces at certain times
14	timing and waiting
15	availability to all areas.
16	It's too expensive for the elderly and the young, would help if they ran on different fuel or electric.
19	If I had alot of heavy shoping it would be difficult to rely on public transportation
20	not a lot of freedom
21	Keeping a schedule on the breakdown of equipment
23	schedule
24	it doesnt go where its needed
25	I wouldn't feel safe riding it at night.
26	having to wait
29	scheduling
30	The schedules are not for the people's convience
32	they dont have them located in the most available places.
33	less privacy
35	loss of privacy
36	The people are too noisy on the bus.
37	too hard to take groceries
38	their scheduling isnt what it should be. you shouldnt spend alot of time waiting
39	want it publically funded and not use alternative funds like gas tax
40	It is less convenient
41	tithg ttime schedule..they could run late
42	that you would be dependent upon its schedule
43	its not available everywhere
44	Inconvenience - frequency of busses coming through, distances you get dropped off of as to where you need to be, things like that.
47	The people that use public transportation are pretty scary.
49	waiting
50	not coming through the area where i live
51	They don't offer it everywhere.

52	dealing with other people
54	have to be on a set schedule.
55	waste of fuel
56	not as reliable as transporting yourself
57	Not many public transit in certain areas.
59	none
60	not being able to when u want to go, u have to wait, u dont know who u will be travelling with
61	Inconvience and time schedules.
62	Doesn't always go where you need to go exactly.
64	Alot of people don't want to give up their cars, they like them.
65	it would be less convenient
66	When there are trains that make buses late.
67	convenience
68	crowded, and me not being in control where am going and how i get there
69	slower than automobiles so inconvenient
70	sometimes too crowded
71	The inconvienience of waiting for public transportation.
75	It is a bit inflexible far as the hours they pickup and dropoff.
76	dont tax him to get the transportation
77	The crime and locating, usually the locations of public transporation is in crime ridden areas.
79	You can't go to all of the places you want to go.
80	unreliability
81	doesnt service all areas
82	lack availability
83	being with unfamiliar people
84	dealing with the people on the public transit, like on the busses.
85	I think it would be too expensive for me to use
86	not flexible enough
87	Getting to the place where the public tranit picks you up.
88	availability
89	It's not available to me.
90	crowding
91	having to work with the schedule
92	Tied to certain times, you cannot come and go as you please, must look on schedule for bus or train.
93	It's less convenient and cant acomodate everyone
94	not accessible at all times
95	waiting for the transportation to arrive

96	If you have medical problems, the exposure to all those germs would be bad (even in general the germs).
97	scheduling
98	It raises taxes
99	I don't think there are any, if it's made available to people then I think it's great.
100	crowds
101	Scheduling.
102	no drawbacks.
103	EVERYBODY CANT USE IT
104	public transportationis not frequent or convenis=ent for when you want to travel or go where you want to go
105	Lack of adequate services including both in terms of availability of routes and scheduling is not frequent enough.
106	It's more time consuming
107	you never get dropped of where you need to be
108	having to wait for it
110	LACK OF FLEXIBILIYT
112	The price.
115	does not go enough places
116	having to go far for the bus stop
117	CROWDS
118	timing
119	Being far from a stop or having a long wait.
121	TIME CONSUMING
122	Grateful to have public transit, so no drawbacks.
123	availablity of the stations and schedule
124	schedule
125	takes longer to actually get in the public transportation system rather than just getting in your car and driving.
126	access
130	not convenient and have to wait for the public trans
131	it takes longer to get where you are going
133	Time of scheduling.
134	crowded
135	The cost.
136	no idea
137	DOESN'T GO WHERE YOU WANNA GO
138	inconvenient
139	adhearing to the schedule of the busses
140	no privacy you're in with everone else
141	just certain times of day you can use it

142	intial cost
143	SPECIFIC ROUTE THAT IT IS ON
144	pollution
145	Tax dollars are diverted to transportation services. invitation to terrorism.
146	not enough people using it
147	the fair is sometimes are raised
150	convenience
151	The time (you have to be at the place (bus stop)by that specific time or you will miss the bud) and delays are a big problem.
152	waiting out in the elemnst
153	timing
154	HAVING TO WAIT
155	none
157	money
158	its not widely implemented in our area
159	security
160	i see huge busses with noone in them or 1 or 2
161	TIMELYNESS
162	he'll take money out of my pocket to pay a ride for someone else.
163	waiting
164	WAITING
165	scheduling
166	NO CONVENCIENCE
167	does not matter to me cause i cant use it
169	you wouldn't be able to go to the door of your destination
170	inconvenience
171	scheduling
172	TIME CONSUMING TRAVEL
173	her mom lives in buffalo and when she uses amtrack to get here the services aren't good.
175	not available, not handy to use
176	buses are late and sometimes don't show up
177	it takes so long to get somewhere exspecially of trfansfering buses you have to wait on another bus
178	inconvenience of schedule and route
179	not ready when you're ready
180	Don't go to where I need to go or when I need to go
182	it messes up traffic
184	not having a personal vehicle
185	not being able to go when you want
187	over crowding

190	limited transportation
192	What it does to the environment
193	at times its inconvienant
195	time and convenience
196	sometime the price
197	moving minorities and crime to my neighbohood
198	buses
199	speed
200	schedules
201	crowded
202	OTHER PEOPLE THE IGNORANT ASSHOLES ON THE BEST
203	your on their time
204	the security
205	yyou cant set your own schedule and the fact you have to walk distances to get to spots
206	GETTING TO GOOD STOPS
207	fuel prices
208	scheduling convinence
211	being on time
212	possibilites of bus stops in high crime areas
213	probably walking from corner to corner. Logan doesn't have set mass transit
214	take longer to get to where she need to go
215	availabilty
216	not gettin to where you wanna be at the time you wanna be
217	AVAILABILITY
218	schedule
219	no i dont think theres any
220	they dont cover all areas
221	not having it available at the time you need it
223	availability at different locations
224	Too expensive
226	be at a place at a certain time to leave
227	it doesnt drop you off right where you need to be you have to walk
228	scheduling
229	demographic change in the area
230	inclimate weather makes it hard to ride
231	waiting on bus
233	The schedule
234	scheduling
236	specific route
237	personal safety not meaning accidents

238	Reliability
240	i dont see anything wrond with it
242	availability to where you want to go.
243	GETTING UP EARLY TO GET ON THE PUBLIC TRANSPORTION
244	having to cros state rd 15 to access public transportation
245	dealing with my own kids on the bus
246	You have to rely on their schedule.
249	SCHEDULING
251	its inconvienant
252	Not very consistent.
253	too crowded
254	schedule, having to wait
256	not convenient
258	schedule/
259	The waiting to catch a bus
261	Dont get to go wherever you want when you want to.
262	inconvenince of travel and times
263	doesnt work on a set schedule
264	time
265	TOO SLOW
266	inefficient
268	not any she can think of
269	lack of convience
270	IT'S LIMITATIONS
272	the availabilty of where you live to where you have to get on to use it
273	wait
274	Limited schedule of routes.
275	possible inconvinience
276	takes very long to get where you need to get
277	THE SCHEDULING AND HAULING THINGS BACK HOME ON PUBLIC TRNSPORTATION
278	Trying to find a spot close to where i live to catch the bus
279	there is not enough of it, unavailable
280	incovineience
282	Would raise taxes.
283	inconvience
284	does not exist in country
285	none available in the area
286	Waiting for the transportation to come.
287	that we dont have it
288	lack of convenience
289	WAITING ON THE SERVICES

290	inconvient
291	just trying to get to it, the distance have to walk to get to it
292	Finanacial scheduling
293	Not consistant
294	getting to the bus station
295	Its not always convienient when you want to go.
296	they dont spread themselves out as much
297	convenience
301	I dont think that there are any.
302	scheduling is too far apart
303	that it's not opffered to everyone
305	sitting next to others
306	off hours availability
307	Not very sanitary.
308	The distance you have to go to get onto the public transportation.
309	its beneficial for people without cars
311	they are not outside of town
312	co2 levels the bus engine gives off
313	too far
315	freedom to travel whenever
317	lack of conveniance
319	cant control what time you leave
320	You can't always walk to where they pick you up.
321	Associating with people whom you wouldnt otherwise.
322	It is to crowded.
323	Never reliable
324	I have six children
325	The scheduling doesnt always fit when you need it.
326	sometimes lack of routes
327	CONFUSION THAT COULD POSSIBLY BE CAUSED
329	locations of the routes
330	it is not always conveniant for schedule
331	Not necessarily going to where you want to be. I guess convenience. That would be a good description of it.
332	sometimes you see buses not full, and its a shame that people dont ride them
333	Exsesive expense with minimal benefits.
334	not getting to where youre going on time
335	time schedule
336	The biggest drawback I think would be getting a bus schedule where people would know about it, the bus stops. I think every bus stop should be where people would know it's a bus stop.

337	schedule
338	the hours that are running
339	inconveniance
340	probably schedule of time.
341	not avaliable were she lives
342	You have to wait for it to come.
344	Pick up and routing locations
345	SCHEDULING
346	somewhat limited
347	unsupervised children
349	going places with pets
351	The schedule is not always convienient.
352	WASTE OF ENERGY IF NOT USED
353	it not available we i am
354	The inconvenience of going by their schedule
356	availability
357	NOT AS FLEXIBLE
358	schedule
359	NOT AVAILABLE WHEN NEEDED EXACTLY
360	Not enough availability in rural areas.
361	not know how to catch the bus
363	limited schedule--no evening route in area
364	Since the buses run on routes they dont pick you up exactly where you are so the inclimate weather becomes a problem.
365	could have public transportation not available if management isn't right.
368	UNAVAILABLE
369	taking loner to get places
370	UNRELIABILITY
371	not available when you want it
373	its immense expense
374	Availability, hours of pick up and drop off according to when the person needs the ride.
377	WOULD LIKE IF IT WERE AVialable in kokomo
378	wheather
379	Getting to it/not available
380	INCREASING PRICES RANDOMLY
381	Limited routes.
382	hours of availability
383	It's unavailable where I need it.
385	SCHEDULING
386	not on time schedule

387	inefficient
388	INCONVINIENCE \
389	TIME REQUIREMENTS
390	Again, I've never used it.
391	not have a flexible schedule
393	the wait
394	I honestly don't know because we don't have any here, but I think it would be the crowds or something.
396	take longer to get where you are going
397	NOT COMING ON TIME
398	dont have wher u can get to downtown
399	funding
400	timing
401	not enough of it
402	time schedule
403	convienance
405	having it available when needed
406	The timeliness, the cost of time to the user.
407	drop offs inconvinient
408	inconvenience and lack of availabity
409	not that convient as driving ur car
410	waiting
411	Inconvienience
413	route selection
414	when there late
416	very onconvenient because you have to travel by thier schedule
418	not available my town
419	not as much freedom
420	getting on bus with stinky guy or screaming baby
422	wouldnt be enough usage
423	evening security and stigma that weird people ride buses
424	Moderate inconvienience.
426	Well, I suppose the price of gas right now.
427	schedules dont coincide
428	waiting
429	walk to far to get to the bus
431	not having a station routes that benefit alot of people
432	safety
434	doesnt concentrate enough on low income areas
438	routs not convent
439	NOT CONVIENT

440	can;t think of any
441	The stops aren't located near where you live.
442	The timing limits, it does not run often enough.
443	cost to taxpayers if not being used
445	Convenience.
447	You have to go by their time table.
448	time
450	not available
452	would not be available when i want
454	YOU HAVE TO WAIT AT CERTAIN TIMES
455	having to wait
456	they are too large and its not efficient, too large and not enough people...more stops
457	not having enough
460	availability
461	the conveneience
462	dont run early enough in the morning
463	you cant get exactly where you want to go when you want togo
464	sometimes not available at certain places like mine
466	resticted in your travel plans
467	NONE
468	none
469	so crowded
470	Having to change you schedule according to the transportation schedule.
472	hard to be on time
473	limited location they travel to
474	Not always available where you are.
475	Never on time.
477	dangerous bus drivers
478	not going where I need to go
480	lateness
481	The time it takes to get from place to place.
482	inconveneient routes
483	not enough to support the public
484	limited on wher you can go
485	it doesn't go to all the stops
486	it doesnt come out of the city limit, and we pay taxes too
487	The inconvienience of the time schedule and the locations where it picks you up.
488	not enough range, range need to be larger
489	the amount of people on it
490	NOT AS CONVENIENT
491	larger fleet to accomodate mor people and prevent crowding

492	That we dont have access to it
493	scheduling limitations
494	getting from hoe to where to get public transit
495	Where we are at the coverage isnt very good in my opinion
498	too crowded and not on time
499	restricted to a schedule that is not determinted by you
500	LIMITED ACCESABILITY
501	there is too long of a wait at the bus stops
503	Inconvienient
504	convenience
506	you have to be on their schedule
507	Riding wiht other people
510	indepence...not very independent
512	crazy psycho killers
514	Waiting long periods of time for the transportation.
515	not familiar with bus schedules and unsure of how late the bus runs
516	availability
517	not being able to come and go at the exact time you want to
519	not convenient
520	bus time schedules
521	Not easily available to everyone, example is if i wanted to use it i would have to drive into town and take a bus to get to a train
522	being on someone elses schedule
523	Not enough routes.
524	timing.
525	eccesiblity
526	NOT BEING CONVENIENT
527	Not enough of it
528	It stops running early.
530	Not enough places they go
532	you have to wait
533	not convinient times or routes
534	Knowing the bus schedule, pass etc
535	Most of the time you can't go where you want to when the bus stops you have to get off and walk a distance before you get to where your going.
536	Dont have enough routes
538	The fact the tax payer money has to go towards it.
539	the inconvenience, the timing, it takes to long
540	not enough availability
542	limited acess to areas.
543	Scheduling

544	When going shopping is not conceivable.
545	not enough people use th service so diesel is being wasted
546	waiting time
547	posability of my savings being equaled out with incread taxes to provide transit
550	no availability
551	conveniance
553	Making sure you have stops and enough locations to use it profertibly and its convient.
554	inconveinence, gotta go by bus times
556	safety and waiting on it
557	have to travel on the buss schedule
558	limited hours
560	inconvenient and slow
561	Limited hours
562	lack of freedom
563	scheduling
564	too costly
566	the schedules
567	Scheduling
568	if a bus comes near your residence.
569	Timing to make connection.
570	bigger vehicle on roads
571	dealing with all the people
572	the inconvenience of scheduling
575	the public transit doesn't go for long enough hours or start early enough. In fort Wayne it doesn't doesn't reach several cities.
576	idk
578	Not keeping the buses clean.
579	timing.
581	the weight, waiting on the bus or waiting on them to get to the bus stop.
582	Over crowding
583	not enough public transportation in many area and hours limited
584	i'm not farmilular and my friends drawback would be the availability of it. the way i understand it you have to let them know in advance a few days before and sometimes you don't know it yourseld
585	Lack of schuduleing.
586	Wait time.
587	time
589	Findin bus stop close to what i need
590	schedule
592	waiting

593	time and scheduling
594	have to wait on it could only use it at certanin times
596	availability
597	not being able to go where you want to go when you want to get there
598	longer hours
599	not available in the country
601	cost to maintain and get people to use it
603	that its not on a schedule that does not benefit me, on whatever schedule the public transportation that it has.
604	not available in needed areas
607	schedule
608	can't carry groceries efficicntly
609	it's subsidize
610	for me its accesability
611	pollution
612	Timing,have to wait on busess
614	its not available where I live, but it is in the bigger cities
615	tied to the bus schedule and no time flexibility.
619	fuel emmitions
620	LACK OF AVAILABILITY
621	inconvenience
622	may have to wait through several stops to get where you are going
623	Waiting for it and having to go to a location to get it. Not being on time, or following a time schedule.
624	not starting early enough or late enough
627	AMOUNT OF TIME IT TAKES TO GET SOMW WHERE
629	WANTING TO GO TO AN EXACT LOCATION....BUT NOT POSSIBLE
630	locations where they pick up
631	They dont have it in enough city or towns.
632	couldnt always go when you wanted to.
633	takes longer to get where you're going
635	PICK UP PEOPLE ONLY ON ONE GENERAL STREET....
636	night service lacking
637	people taking it. if people don't know anything about it you have less people that take it
638	They do need to pay attention where they put the signs. One sign is in front of the house so I have to step out into the street to wave down the bus. When it snow no one makes sure you can get on the bus, mud and water to.
639	lack of convenience
640	SYSTEMS THAT ARE NOT USED AND MONEY LOSERS FOR THE PUBLIC BENIFIT
641	Availability, we do not have public transportation around here.

643	The incovience of where to drive you when you want.
644	the road hazards, stopping all the time.
645	waiting, not bad in the summer but in the winter and it takes about 30 min for the buses to get to the stop.
646	CONVENIENCE
650	variable time
651	lack of availability
652	buses don't run often enough
654	CONVENIENCE
655	THE SCHEDULES
657	scheduling
658	if it doesnt meet your needs there be no use in it.
659	make arrangements 24 hrs in advance of riding
660	having to wait
661	not always running on your time schedule
662	Limited routes, the unavailability to many people.
666	limited scheduling and stops
667	Saftey...because I get off of work at 12:00am!
672	if you use it daily and one day you have to do something extra or your late and you might have to wait for another bus, especially bad in bad weather
673	Infrequency and not enough routes.
674	LOSSS OF FREDOM TO JUST GO WHEN YOU WANT TO GO
675	schedules
676	not available everytime you may need it
679	Available in all areas and when needed.
680	inconvience of waiting.
681	AVAILABILITY
685	it doesn't outside of the city limits
686	not being able to go close to where you want to go
687	expense
688	being uncomfortabel areounf so mant difi starnge plp
689	Convenience.
690	making sure you dont miss bus
693	just time, making all the extra stops (probe-anything else you'd like to add can you be more specific) no not really.
695	HAVING TO WAIT IN BAD WEATHRR
698	too much subsity
700	got to walk to get there
701	Doesn't access all areas.
703	limites hours/ destinations
705	There aren't any

707	fiancing
709	the buses don't run on time
710	Nasty people, comminatly of it. Human contact
711	Typically it takes a little bit longer to get where you're going.
712	The timing and inconvience.
713	i dont there are any for the metropolitan area
714	people Schedule
716	bad scheduling
718	have to go to a certain point to be picked up and that is wheree you would have to meet them and are they goingto be there to pick u up
719	someone can steal your stuff
723	safety
725	Incovience of go by a bus schedule.
726	the routes
727	gas of the bus
728	Length of time and inconvience.
730	bad pick up timing and routes
731	scheduling
736	very limiting, if public transportation become avaliable it becomes limited to wher it might go
737	To stand around and wait for it.
741	Schedule.
742	not being able to go when she wants too
744	Scheduling, there when you need it.
745	not readily avaliable
747	dont get to choose whos sitting next to you
748	scheduling of routes.
749	Running on someone elses time schedule.
750	The price of the transit is going up because of the price of gas.
751	the routes are inconvie.
752	INEFFICIENT AND EXPENSIVE
753	waiting time
754	takes extra time to get to destination
755	people
756	WAITING
758	defined or limited access
759	Convience when you live in a rural area.
760	Flexibility.
761	other people
762	long weeks
769	having to gon the public trans schedule instead of our own

771	Inconvience
773	service
774	availabity, they don't come to all places.
775	im not close to the service
776	only runs downtown in FT wayne
777	schedules
779	whenever a bus stops it slows traffic and bulds up
782	bus stops
783	the germs and cleanliness
784	Convience, you have to wait on the bus.
785	Probably it doesn't pick you up and drop you off at your house--you have to go to it, it doesn't come to you.
786	if you are handicaped
787	Lack of convience.
788	I don't think there's any drawbacks.
790	its availability.
791	Safety on the buses.
793	the location that it is wherer you pick up the bus stop downtown.
794	the loss of time getting there
795	Not being able to go to all of the places that you need to go.
797	local city funding
798	The lack of the routes they run.
801	opearated by the government and would help only a limited amt of people using taxpayers money
802	access and timing
805	not available at time you prefer. crowding.
806	Well you have to wait on a whole bunch of other stuff. You can't get straight to your destination.
807	not convient or available
808	not as convienant have to plan trips aroung public transit.
809	the area that it has to cover would be hard to lay out
810	GETTING PICKED UP CONVENIENTLY
811	schedules
812	its availabilty no route you have to call them
813	The availability, it is not close by. I would have to walk a mile to get to the bus stop.
814	You have to be on a route to have more than one customer.
817	convenience
818	when it comes to actual repairing of vehicles,not enough money is used to repair what is wrong with the actual vehicle.
819	doesnt go where i need to go
821	Additional time it takes to use it.

824	limits where you go
825	comm. affordability
826	scheduling
828	probably keeping them clean.
829	schedules
830	times
831	Esessability.
832	delays schedule
833	they dont go when u want to go they are on a schedule and i may wan to go earlier or later
834	The availability of public transit.
835	I guess availability in small towns.
836	HAVING TO CONFORM TO THEIR SCHEDULE
837	cost of running it
838	time.
839	small area that is served. lives in country.
840	scheules
841	Germs.
842	cost
843	safety
845	convien. you would havce to go when their routes run so you would have to go according to their schedule
846	not enough buses
847	it may not always be convenient to use.
850	schedule
856	Not in my location.
857	SIPHONS OFF A LOT OF MONEY
858	it is cheaper mode of trans so it will open up to more crime
859	time of schedules
860	Cleanliness
861	They dont come in the country, they need some kind of transportation services where I live.
862	Probably in our city wait times. They've gotten better on the routes and where they go, but you have to wait too long.
863	THE AVAILABILITY
864	in smaller comm, they stop service earlier in the evenings
865	location of station
866	not flexible
868	All of the people
869	Locality or routes.
870	The buses accessability isn't very wheelchair friendly. (Evansville buses)

872	inconvenience
874	waiting so long for bus.
876	schedule
877	cost
878	Its not available.
879	Possibly security reasons.
880	ia'am kinda shy of getting on with different people
881	other people
882	inconvient,
883	Convenience.
885	raised taxes
889	take more time
890	getting to where you need to go when you need to
892	Inflexibility of the schedules.
893	Well having to go on their schedule instead of mine.
894	There isnt any available here.
896	smelly
897	none available
898	none
900	couldn't get service to places needed to go.
901	Working around the schedules they are on.
904	inconvenience
905	Having to walk a far distance to the bus stop.
907	not convient
908	limited schedules and trips
910	GETTING TO WHERE YOU WANT TO GO
911	not enough bus routes
912	Its not convient
913	schedule and it doesnt come close to where i live
915	The crowdedness of the buses.
917	Takes more time on your part.
919	schedules and routes
920	THEY STOP RUNNING TOO EARLY
921	not being able to get where you want to go
923	none available
924	It's much slower, you have to wait for the transportation.
925	the extra time required to get where u need to go
926	scheduling
928	scheduling
929	Getting to where you would have to wait for the bus or public transportation, WAITING.

930	use a lot of the money from local govt, like tax money
932	thye cant be everywhere they need to be
933	not keeping to schedule.
934	schedule
938	not convient than having a car
939	Schedule.
940	schedule
941	security
943	not offer in all places
945	incinvenice
947	Inflexible schdule
952	spreadind dieases
953	cleanliness
954	Gets to crowded sometimes.
955	concern for safety
956	it 's on schdule you have to there when the bus pick up
957	availability
958	schedule
959	lack of availability.
960	waiting at bus stop
963	time contrant
965	can't think of anything
970	waiting
973	Cost
976	The convienience of the time of the schedule.
977	have go to bus stop where disable ppl have to wat and waiting
978	time lost
979	bueurocracy
981	schedule
982	can't think of any
983	Time management
985	hassle
988	schedule
989	seems to draw the indengent people that steal,less desirable around her family.
990	The traveling time is longer when you factor in all the stops you have to make.
992	schedule
993	it take a lot longer
994	hauling kids with caresaets around
995	Availability, not available here
997	Honestly, I think it can be quite scary.
1001	not enough

1002	privacy
1003	Probably the inconvenience of notbeing able to go when I want to. Have to follow their schedule.
1004	not enough public trans
1005	wait
1006	the incovience of the availability and it doesnt go every where
1007	threat of terrorists
1009	availabilty of public transportation
1010	being on time
1013	Trying to work around the schedules.
1014	don't stop when want to. more private when by your self
1015	lack of availablity
1017	cost
1021	The extra time involved waiting working around their schedule.
1023	inconvience
1024	inconvenient
1025	all the stops that they make
1026	people cauing prolblems
1027	more convienant.
1028	loss of flexibility
1029	Inconvenience
1032	There is nno public transportation available here
1034	living in rural community, can't access like youi woulkd if you lived in a city.
1035	The availability in our area.
1036	not comfortable to around people that shes not familiar with
1037	no flexibility
1038	having to catch it on time and being present on time
1040	BEING ABLE TO HAVE ACCESS TO IT
1041	lack of stops, dont reach enough people
1042	timing
1043	the scheduling
1045	Inconvenience
1046	timing
1047	scheduling
1048	Probably being crowded.
1049	availabilty after night time
1050	it goes ways i don't have to go
1051	in suburbs does not run
1052	If I go shopping and have alot of packages it could be a drawback
1053	Not having your car in an emergency situation while at work.
1054	not able to access

1056	waiting for bus routes and scheduling
1057	standiing outside in different weather conditions waiting for trasnportattion
1059	not convenient
1061	for me its not close enough it would be difficult for me to get to the public transportation. availability,
1062	convienience
1063	lack of availability
1064	time
1065	the schedule
1066	getting somewhere on time
1067	Trying to get to where they pick you up.
1068	availability, distination
1069	Inconvenient times.
1071	getting to the pick up points
1072	waiting on the bus
1073	transfering to different places
1074	they dont seem to be using it enough to pay for it. The people who have to use it arent there so the pepople who dont use it have to pay for it.
1075	on someone else schedule and have to wait not available in all areas.
1076	The biggest drawback would be the availability to get that transportation. Like I say, if I worked downtown, I could catch a bus and get there, but there is no bus that goes straight to Beech Grove from here.
1078	availablity
1079	not available whenever you want it
1080	doesnt run close enough to the neighborhods needed
1081	the time you have to wait
1082	that you have to transfer when you really dont have to.
1084	riding with strangers
1085	Time. It takes much longer.
1088	there should be more routes in the country.
1089	frequency of buses
1090	You have to run according to their schedule, not necessarily your schedule.
1091	there are time constraints
1092	inconvienet
1093	They need to have more routes
1095	they dont have to raise the price
1096	not availabe not readily accesible to everybody
1097	WHERE TO CATCH IT
1098	Probably not going to as many places as you need.
1100	the crowd
1102	NO CONVIENCE

1104	not enough people use it.
1105	Availability
1106	only run once hr. time to catch the bus
1109	convenece
1110	longer transit times
1111	the increased taxes to pay for it
1112	not being able to get fromone place or with kids and hauling groceries
1113	schedule
1114	Probably destination. I know here it's hard to get where you need to go sometimes. Which is why I prefer to drive.
1115	Higher class people would not like the lower class people in their neighborhoods.
1116	availability for the surburbon area
1117	the tax payer fund this
1118	none.
1119	availabilty in small town
1120	schedule
1121	not acesibility and time
1122	taxes
1123	adjust my schedule to theirs
1124	The automobile makers would think it would be detrimental to them.
1125	not keep up on maintnaice as much as they should be.
1126	scarcity and infrequent service and cost-not subsidized adequately
1127	no drawback
1128	availablity at dif times
1131	the crime thats in the nieghborhoods and theft.
1132	getting to the area that i would want to go
1133	timing
1134	Standing out in the weather waiting.
1135	availability
1137	fact of depending on where you live you may have to walk in order to receive public transportation
1138	not comfortable. I am an older lady, hard to get off and seats are uncomfortable.
1140	accessibility
1141	not stoping where u wanna stop
1142	inconvenient schedules
1144	money no one has the money to afford
1145	they wouldn't make money coming into the small town
1146	You may be in with a bunch of people that you wouldn't care to be with.
1150	time of travel
1151	Having to wait on the schedule.
1152	someone elses mercy, have to go by schedule

1153	THE SCHEDULES
1154	inconveniant
1156	Availability
1157	not being available when you want to go some where
1158	Cleanliness and maintainance.
1159	do not think there is any
1160	dont see a drawback
1161	availability
1162	a pain for the disabled
1163	There is none that I know of.
1164	inconvenient
1166	not close to home/work
1169	time
1170	timing
1171	limited availability
1174	crowded
1175	setting your schedule to the bus schedule
1176	not available in the country
1178	convenience
1179	It's not practical for some things.
1181	distance from my home
1182	schedule
1184	having to wait
1185	routes dont cover enough territory for those who need it
1186	they charge too much
1187	dirty
1188	You have to be on their schedule.
1192	crowding
1194	not available to everyone
1195	personal space
1197	availability
1198	for us out here inaccessibility and unavailability
1200	take longer to get there
1201	inconvenient schedules
1202	availabil.ity
1203	coniviend pick up stations, accessibility
1204	routes don't go out far enough
1205	waiting
1206	not available
1207	there is none
1208	Wait for bus to come

1211	workin on the bus' time schedule
1212	The access to public transportation is limited.
1213	time
1214	inconvent not to have own space and schedule
1217	NOT CONVENIENT
1219	transportation ends at a central location so you have to use other means to get to where you need to get
1220	scheduling
1221	schedule
1222	security
1224	when you don't have access to it you have to take what is available to you
1225	MAKING TRANFERS
1226	the scheduling
1228	not as much freedom
1229	Availability
1230	sheduling
1232	none
1233	NOT CONVENIENT
1234	inconvenience
1236	does not know how long the trip would take
1238	doesn't go all the places ppl need it to go
1239	inflexible schedule
1241	the availability
1242	not available
1243	it doesn't come as often and doesnt go far enough outside the city
1244	its not convinient
1246	inconveinent
1247	Inconvienience
1248	amt of waiting time and bus station location
1250	the bus schedule time/pick up drop off
1251	somebody elses schedule
1252	stops at 6:00
1255	It's public. If mitch get reelected we will be reelected we will be in big trouble.
1256	schedules
1257	The different hours that a person works
1258	i don't see any drawbacks
1259	The people (Im not really a people person)
1260	time
1261	Other people on the bus.
1263	time consuming
1264	conveinence

1265	that they got rid of it in the country
1266	convenience
1270	lack of control of destination and times
1271	being on someone else's schedule
1272	having to wait
1273	economical
1274	none
1275	lack of freedom, not going where you want to go
1277	the scheduling
1279	cost to taxpayers
1280	waiting/crowdin
1281	inconvenience in time
1283	fixed schedule
1284	there are too many different people on the bus, just not into that
1285	schedule
1286	admissions for the gas
1288	limited in access to where it can get you
1289	the schedule
1291	Scheduling.
1292	not available at the time u minght need it
1293	less convenient
1294	making stops. random stops
1295	safety
1296	none
1297	doesnt come where I need it
1298	the waiting time
1299	area coverage
1300	availability of services
1301	running errands, wont be able to do that with public transprt
1303	the schedulings
1304	the cost of the gas and maintance of the vehicle
1305	maybe if everyone took the bus our gas prices wouldn't be as much
1306	Costs.
1307	schedule, diff times bus comes
1308	waiting in bad weather
1309	waiting in the weather
1310	when hot days there is no air conditioning
1311	the availability
1312	Availability when you need it.
1313	having to wait
1314	put co2 in atmosphere

1315	they late
1316	not convenient pick up location
1317	having to stand out in the weather waiting for it
1318	inconvenient schedule because the bus service ends too early
1319	time waste waiting
1320	scheduling/time
1321	where they make their stops
1322	waiting at the street corner
1323	the management, it is expensive because it dont get alot of attention
1324	possibly the wait time
1326	they shut down to early
1327	Scheduling
1328	bus routes/schedule
1329	how accessible it is
1330	deal with their schedule instead of mine
1331	availability here
1332	not owning your automobile
1333	inconveinent/scheduel
1334	schedule
1335	developing the system in the area. Get public to buy into the system
1336	Convenience
1337	in an area where public transportation is lacking, schedules are ridiculous
1338	inconvenience of scheduling
1340	not available
1341	i don't see any i live out in the country
1342	access in certain areas.
1343	how public it is
1344	the price
1346	timing
1347	not enough of it in indiana
1348	Availability.
1349	so many people dont need it but needy people do as low income.
1350	inconvenient
1351	waiting
1352	It doesnt run on your convience
1353	that it takes longer
1354	the time
1355	In many cases it only goes to certain destinations and doesn't take me to the door of where I'm going
1356	scheduling

1357	where i live at i can't get it, i'd have to go to north park and that would be quite a ways to go
1358	Waiting for bus, tranfers on the bus are confusing.
1359	the inability to use it in all areas. and sticking to the schedule.
1360	for people who need vechiles that need to get around.
1361	schedule, routes
1362	the inconvience
1364	You wouldn't be able to get them just when you needed it.
1365	Location, live outside town and have no transportation.
1368	schedule
1369	Freedom (probe)everythings on a schedule whereas when you're driving you don't have to wait in lines when you're driving you're on your own schedule
1370	the accessibility is not good
1373	THE TIME TABLES AND SCHEDULING
1375	All those people cramed together.
1376	yourm privacy
1378	it's in your bigger cities and not in rural communities
1379	not going when you want to go
1380	bjeing outside off the transportation limit
1381	delays
1382	The lenght of time it takes to get to from point A to point B.
1384	CARRYING THINGS OFF AND ON. PLUS THE SCHEDULING
1385	sometimes it get crowded
1387	convenience
1388	Schedules, you don't have a schedule that fits what you want to do
1389	Economic impact, I live in a auto producing community.
1390	alomst non existance.
1391	strangers riding with you and the dangers involved
1393	scheduling-waiting
1394	not availble in every area
1397	Being where you need to go with them
1398	non for me b/c i don't usually fo to far
1400	violence
1401	When a bus breaks down and you don't have control you have to wait on another bus and also you are running late for work
1402	not always available when needed
1403	SCHEDULING
1404	in my town they would have to drive long distances
1405	youu go when they want to go
1408	Don't get directly to destiny, have to take many buses or walk to get to destiny.

1409	the scheduling being able to come and go as you leave you would have to be aware of the times.
1410	scheduling
1412	The convenience (probe) just going out in your car and going someplace
1413	availability
1415	having to depend on others
1416	scheduling time
1417	there isnt a draw back.
1419	lack of flexability sometime
1420	It's not to where you can get on it, you have to drive to get to public transportation
1422	availability here
1423	the location we would be able to use it
1425	convience of getting into your car whenever you want
1426	being oustide waiting for the tarnsport
1427	the availablitiy the lack of infrstruction.
1428	scheduling...instead of getting up and jumping into your car and going places you have to wait on the bus to come at a certain time
1429	I don't think there would be any if we had it.
1431	Being crowded.
1432	INCONVENIENCE
1433	i don't have any
1435	schedule
1436	not being utilized
1437	schedules
1438	availability
1440	Having a train in my neighborhood might lower the property value
1444	convien., not as convien. as goign out to your garage and being able to go where you need to go on the schedule you need to go
1447	PICK UPS AND DROP OFFS
1448	route does not come often enough
1450	waiting on it
1451	inflexible routes and not enough destinations
1454	Convience factor.
1456	its not convinient to every bodysschedule
1458	Privacy
1459	fighting the crowd
1460	schedule
1462	the time you'd have to wait on the bus. if you are shopping you would have to hurry to catch the bus on time if you had a car you could do whatever
1464	scheduling
1465	time restraint

1466	They don't have enough buses.
1467	rough in city
1468	NOT AVAILABLE WHEN I NEED IT
1469	schedule
1470	Might not be on time, or avaiable when you need it.
1473	Probably not being timely.
1474	not having the money to afford gas
1475	not enough destinations and the routes,no Sunday routes and the not enough late hours
1477	accessebility
1478	pricing
1479	primary concern would be safety
1480	the cost, I think that indiana would be proactive to update there trains.
1482	not having the freedom of going where you want
1483	none
1484	Maybe seating. (probe) like handicapped accessibility to get on and off it and seating for them.
1487	inconveniant schedule
1488	waiting on buses
1489	time,availability
1490	scheduling
1492	the cost of maintaing it
1493	availabilty and times
1497	when ac breaks down
1498	cits drawback would be its avaiability
1500	have to go where the public transit goes
1501	not convent
1503	not available in his area
1504	the time involved
1505	inconvinence
1506	not enough available
1507	You have to work on their schedule.
1508	not always on time
1509	the availablity.
1510	they have a lot of wrecks and i would prefer to drive myself
1512	Time span, it only comes by only once an hours. So you have to leave earlier.
1513	inconveniant
1514	THE SCHEDULING
1515	scheduling
1516	I DON'T HINK THERE IS ONE
1517	its not available

1518	safety
1521	not being to have your own vehicle especially in a case of an emergency
1522	WAITING FOR THE BUS
1524	inconvenient times
1525	Lack of availablity.
1526	I don't think there is any
1527	schedules
1530	limited stops.
1531	schedules
1532	unable to leave when need to get back home
1533	I THINK THAT IT IS DANGEROUS
1535	You can't take your belongings with you as you would in your own vehicle.
1536	not enough buses in indy
1537	schedule
1540	The only thing that worries me is gettin' on there with somebody that has head lice or something.
1541	inconvenience
1542	the safety issues
1544	not available
1545	increase in taxes
1546	The time factor and the aceptablitity. public saftey needs improvement.
1547	availability
1550	The routes that the public transit travels.
1551	convenience
1552	having children
1553	lack of availability
1554	the scheduling and the timeing on when its going to get to the stop.
1555	the availability
1556	The buses aren't on time; scheduling.
1557	cant do what you want in it like smoke
1558	unavailability to housing editions
1559	can be inconvinient
1560	gas prices.
1561	doesn't go enough places
1562	schedule
1563	convenienece
1564	not being about to comment having to wait for an hour
1566	time coordination
1567	where you have to stand and wait
1569	people coughing and sneesing in public;germ transmission issue

1571	Doesn't service enought people, not enough people take advantage of the service.
1573	time and safety (probe-can you be more specific) when you need to be somewhere and it runs at hours then you're wasting your time
1574	the availability, not being able to have it close enough to use.
1575	flexibility
1576	Not knowing who you are traveling with.
1577	crime
1578	Normally you have to drive 20 miles to use the public transportation
1579	not being available
1580	car wrecks
1581	The fact out here where I live in Terre Haute Indiana, it's not available. I live on the south side and public transit isn't available in my neighborhood.
1582	their schedule is not really yours
1583	that it doesnt run on sundays and it doesnt run past 12.
1585	not being able to get where you need to go quickly
1586	scheduling problems
1587	price
1588	scheduling having transportation available when you need it.
1590	Convenience. Not being convenient.
1593	stupid. have to go downtown to transfer buses. You have to go miles out of your way to get places.
1595	Probably having to, making more than one stop, because if you want to go someplace and other people are going to other places, you have to wait your turn.
1598	I don't see one. It helps so many people
1599	It might not be available where you want to go.
1600	doesnt take you to the exact destination
1602	not enought of them
1604	probably the outreach.
1605	no place to set. have to stand/ poor set up. may or may not show up on time
1607	Maneuvering packages when you shop, carrying grocery items, that type of thing.
1608	acces to getting the transportation
1610	no smoking on the bus
1611	Here there is none.
1614	the timeing issues as far as driving and getting there because they have to stop at bus stops.
1617	Probably just the time and convenience, not being able to go at the time that you want to, having to wait.
1618	not being over here
1620	none
1621	waiting
1622	the unavailability

1623	not on my time
1624	can't go to additional places you want to go.
1625	We don't have enough of it and what we have doesn't make enough stops.
1627	none
1628	flexibilty
1631	COSTS OF SERVICES
1632	only availabe in certain areas
1633	carring your packages
1635	there is no negative
1636	having to wait.
1637	the availabilty.
1640	availability
1641	Probably not enough room to carry everything you need probably daily.
1642	The capital cost from the infrastructure and also the effect that with public transportation you don't have the freedom to leave when you want. NO schedule freedom.
1643	Inconvienience
1644	the taxes, the taxpayer is going to have ride the thing
1645	if we couldnt get where we needed to be at the right time
1648	wouldnt be convinient with her life style
1650	Probably scheduling.
1651	distance
1652	time consumed when you need to transfer
1653	sometimes the destinataions are a little further than the bus can travel.
1654	home less people sitting beside you
1655	gettin to the pick u pand drop off point and timing, and safety/ crime.
1656	having it on time and in the right places
1658	The times that they come and leave would be the biggest problem for most, as far as scheduled pickups and scheduled stops.
1659	lack of availblity
1660	They don't go where you want to go
1661	CRIME
1662	availability we dont have anything near us
1664	Location. If you live in the country you have to drive a long ways to get anywhere.
1665	u never kno when it is comin
1668	Around here we don't have one.
1669	availability when you want to go it may not be a scheduled time for the bus to run
1671	people take time gettin off bus
1672	Scheduling and making time to get where I need to go.
1673	GETTING IT WHERE IT IS NEEDED
1676	effecting the tax dollars by having it.

1679	availability
1681	lack of convience
1682	Too crowded.
1683	time requirements
1684	getting to location and having it available
1685	Pollution
1686	none
1687	INCONVENIENCE
1688	therer wouldnt be any
1689	not having it
1690	Waiting for it
1691	they are dirty
1692	SCHEDULING
1694	taxes, safety more people might be injured if a crash
1695	having to wait so long
1696	being in time with your work schedule
1697	availability
1698	They're dirty
1699	lost of time
1700	I imagine you'd have to wait until it was pickup time, you would have to wait for that bus to come at that time.
1701	having to wait for the bus to come and it taking a little longer.
1703	following a schedule
1704	It wouldn't go anywhere near where I would want to go.
1706	frequency of stops and locations of stops
1707	Not available on the outskirts.
1709	NOT CONVENIENT
1710	availability
1711	not available every where
1712	u would have ot go on their hours u coundlt do nething on the spur of the moment
1713	the availabilty
1715	the time tables (p)
1718	it doesn't go everywhere
1719	routes
1721	being there when you need it
1722	distance to get to it
1725	schedule
1726	having to relyon it all th time..being on their time schedule
1727	route
1728	availability.
1729	the availability of it

1730	That it is limited where it goes.
1731	not available
1732	not enough around here
1736	making a reservation ahead of time
1737	having to wait
1738	convenience
1739	only if it meets a flexible schedule would it be effective if not this is a drawback
1740	Not available to everyone who needs it.
1741	timing
1744	not enough services or routes
1747	strangers
1748	less flexibility
1749	Timing
1752	availability
1754	You have to work around their schedule.
1756	not as flexible
1758	The inconvienience of scheduling.
1759	schedule
1760	safety
1761	it doesn't go everywhere you need it to
1762	time, schedules and not accessible to everyone
1764	Probably long rides.
1765	not enough bus routing.
1768	The scheduling/availability
1769	Availability, and how much stuff you can take on there.
1771	Having to run on their schedule.
1772	waiting
1773	scheduling
1774	There's probably a lot of dirty people on them.
1776	when bus break down when cnt get t obus stop
1777	its incovenient based on location.
1779	higher taxes
1780	I think when gas prices go up they've got to probably raise their price too, so you're not really gaining a whole lot.
1781	time you need to get somewhere it wouldnt be available
1782	not availabe
1783	Waiting for the transportation to come.
1785	they shut down early o Saturday and Sunday.
1786	Safety. Safety amongst other people for one thing; if there's anyone that can do you harm on a bus or otherwise.
1787	tax payers money to get it available.

1790	convience
1791	Dont know what type of people you are going to be around.
1792	not being able to have vehicle when ever you want it
1793	schedule conflict, crowding
1794	Probably lack of privacy.
1795	the waiting time.
1798	schedule
1799	waiting
1800	Just in general I would say cleanliness.
1803	its time consuming
1805	Just limitation of being able to go certain places.
1806	getting around to your destination.
1807	scheduling
1808	overcrowded
1809	finding pick up areas
1810	the incoveniece of the stops and schedule
1813	the safety, sometimes how long it takes because of all the stops they take.
1815	sometimes just a pain
1816	the waiting
1817	people having to wait on the scheduled bus
1819	time of routes
1820	unfamiliarity and availablity
1821	scheduling time
1822	low availability
1823	The lack of locations that it stops at.
1824	cost
1825	Inconvenient.
1826	I would say the lack of consistency...and you can't really count on them.
1827	Pollution.
1829	They cut some of the buslines.
1830	Length of time for commute.
1833	the amount of time it takes to get somewhere
1834	profitability to the city
1836	its somewhat inflexable
1837	Having to go to certain places to be picked up.
1838	schedule,
1839	availablitbility
1840	dk
1842	Having to go to different places to transfer.
1844	It is not free.
1845	Have to follow their schedule.

1846	riding on bus with other poeple
1848	time schedule
1849	There are limits to where you can go.
1850	lack of conveinent routes
1851	cost
1852	inconveinence oftime
1853	they dont run late enough
1854	scheduling
1855	unreliable transportation.
1856	were its available
1857	Too full.
1858	u dont get drop off at the exact place u want to go all the time
1860	Availability of routes.
1861	scheduling
1862	It's not available in Fishers (Hamilton County)
1864	the incovenice.
1865	Having to park my car closeby and it's not my schedule.
1866	inconvenient
1867	Inconvenience
1870	the unavailabilty around where he lives.
1873	waiting
1875	In our case, accessibility.
1878	not enough of it
1879	Being on time.
1881	lenth of time it takes oyu to get from place to place, and access ability
1882	availibility you probably could not always have public transpotrtation when you want it
1883	crowded, the weather and having to stand out and wait
1884	do the routes go where you need them to go
1885	I think this country let its trains go to pot. We have no public transportation here, Indianapolis is the closest I suppose.
1886	Waiting for it to get there, I suppose. Just sceduling it I guess. And getting to it.
1889	there is not train sytem its not convenient to use public transportation
1891	smell from polution, narrow road and bus is taking up space.
1899	the scheduling they are not keeping up with the schedule
1900	not being in control of vehicle
1901	germs and riding with other peopel
1902	the inconvenience they dont go where you have to go
1903	the time you have to be there
1904	availability
1905	none

1908	inconveniences with schedule
1909	schedule
1910	availability
1912	dependant on their schedule
1913	only go when they do
1914	putting your life in someone elses hands
1915	schedule
1916	takes too long
1918	not having vehicle available if needed
1919	inconvenient
1920	Getting access to the land to get public transportation.
1921	inconvinient
1922	Waiting out in the weather.
1923	dirty people
1924	Having to wait outside in the cold for a bus.
1925	Safety.
1926	Under funded or not charging enough for bus tickets or the usage of it.
1927	scheduling times
1928	Getting back at the right time.
1929	Inconvenience. Not having a close location.
1930	The logistics.
1932	Not being able to get directly where you are going.
1933	Unavailable to the places where my wife wants to go. It's limited in the city.
1934	flexibility of time
1935	Schedule.
1936	Flexibility.
1937	routes it takes doesn't go where i want to go
1938	money and gas
1939	not to many grocery
1940	Waiting for a particular bus or train.
1942	Sometimes the schedules don't match what you might need.
1943	There aren't any drawbacks.
1944	inconvenient
1945	It would take people more time to get to work.
1946	waiting
1947	not being available
1949	not availability
1951	Having to walk to a bus stop.
1953	the scedules.
1955	the weather in indiana is not friendly enough to stand outside and wait for it.
1957	The timeliness of the bus schedules.

1958	Availability.
1959	not enough routes
1960	It is going to be overfunded when they really just need a transit from downtown to the airport.
1961	the availability.
1962	haveing to travel on someone elses schedule.
1964	if you dont live close to a public transportation you cannnot ride it.
1965	accessability to Indiana.
1967	Convience.
1968	Time of having to trasfer routes.
1969	The bus stops are too spread out.
1970	Time waiting.

Q13D. What other forms of funding should the government consider?

Respondent ID	Q13D
2	GAMBLING REVENUE
4	People who make $200,000 or more should be given a utility tax to help cover this.
6	reduce spending elsewhere n locate it to transportation
8	disagree with some community expendatures
10	public schools
15	Get out of Iraq and we could use money for that.
16	They could make a 7% tax on everything, like a sales tax. Could make gambling boats pay more money as well.
26	cut public spending
29	federal support
32	local government needs to run more efficiently and use the money they save to fund public transportation.
36	attract new businesses to generate new income to the city.
47	Reduce of the salaries of political offices in order to fund things needed for members of society.
49	putting more people to work
51	Sales tax for each state, they could raise to help federal government to implement better transportation.
52	taxes
54	Raise the tax on luxury items.
55	let go of some of the workers
62	Grants
64	Diesel electric, if they got more involved with that - get electric power or even hydrogen power and raise money that way.
65	lottery income,
66	Liquor and cigarettes should should be taxed more.
68	reduce costs for colleges go down, reduces the percentage of loan repayment after college
72	The can take a cut in pay and cut governmnet spending
75	Lease toll road, lottery tickets, things like that it should have already gone to this sort of thing.
81	truck tax
98	Charitable donation to provide bus fare
99	Make some new tolls on the road.
103	CUT BACK GOVERNMENT WASTE
105	They could consider bond issues.
112	Lottery and casinos, alot of revenue from there, or from steel industry or businesses.
116	federal grant, fares

117	CLEANING UP THE BUDGETS AND CUTTING WASTE WOULD BE A BIG HELP AND USE THE MONEY THEY HAVE.
120	The government should stop sending our money out of the country and spend it here
121	ENCOURAGE FREE ENTERPRISE. FUNDING FOR SMALL BUSINESSES COULD BENEFIT FROM THIS AND WOULD HELP PEOPLE IN THE AREA.
125	private or corpporate funding
134	cut government employess instead of others
135	Fundraisers.
139	realocation of existing money by reducing welfare.
140	learn to balance their budget.
153	help with the federal government
158	military tax
159	review there saleries
164	THEY SHOULD TAKE IT FROM AN ORGANIZATION OR BUDGET OF SOMETHING ELSE THAT IS NOT BEING USED OR WASTED
170	the leasing for the tow roads.
171	redoing the funding they are getting
177	they should cut back on what they are spending now and put it to better use
182	we out to be getting some funds from the gambling boat.
183	A wheel tax
187	a value added tax would be good
195	Reallocate welfare funds and support more workforce rehabilitation programs
196	don't know
202	PROSTITTION.
205	uh developing business to fund public trans
208	the tickets, the fare that you pay even if it had to go up by one dollar the difference you would have to pay for a car is not that much
211	rid of some politicians
212	they can get it from the lottery
215	investments from businesses that would benefit
229	taxing the economic institutions that it helps
233	More responsible funding ands additinal taxing of cigarettes and gambling and liquor
240	clipping money from the other carp they use that we dont need , like these stupid bike lanes and these round-abouts
243	CUTTING COST WHERE THEY SOULD NOT BE SPENDING SO MUCH MONEY
249	MORE REVENUE FROM THE GAMBLING BOATS
252	Everyone needs to put money towards public transportation. Local, state, and federal government.
256	funding from private enterprises
265	A TIRE TAX
268	corporate sponsorship

270	PAY CUTS
273	make a tax for outside companies to bring supplies over to our country.
277	MONEY FROM THE CASINOS
279	they should divert some of the money used to bulid roads to develop public tran.
280	using the casino revenue
285	local lotteries
287	casinos and private sources
288	private grants
290	thinks theres alot of waste and that could be addressed
292	Lottery Money, or they can add it to a gas tax
302	try to reevaluate spending and use it more wisely. they should also build new roads and evaluate where therir routes are and improve the roads
307	Donations from other people.
312	they need to spend their money wisely and cut back on it. fervulent spending
313	tokens for weekly or monthly usage
317	cut govt spending and more efficiant spending.
319	tax credit
320	increase fines and penalties for breaking laws and use that money for funding.
325	Investments from the private sector.
326	right now the lottery. Gaming where's the money going
331	Why not use the lottery.
333	Minimize wasted expenditures.
334	state tax
336	A decrease in tax abatements.
337	lottery
339	federal grants or funding from private sources.
340	business support
345	sTOP GIVING BUSINESSES TAX BREAKS
349	i dont know
360	I don't know.
361	stop giveing themselves raises and working on the things in the country that need to be worked on
364	Dont spend money on war.
365	local economic income tax goals. putting surtaxes on hotels and some estate runs.
374	They have to have something other than taxes. They have the taxes and they have the riders. Between the two, they should be able to come up with the funding to do this.
377	liquior and cigarettes.
383	Levies; I don't know.
387	cut back the national deficit
389	PRIVATE FUNDING

396	bond
399	grants
401	remove the subsides for the oil company and place that into public transportation
403	possibly loittery revenue.
405	need to tighten up on unnecessary spending
406	Public transportation, for BMV fees and wheel taxes, additional fees for getting you license perhaps.
407	monitor budget dont expand needless roads
411	Taxing cigarettes more.
418	wages to increase so that increase would not bother anyone
423	stop spending money on thoingswe dont need, instead spend on the things we do. nothing in particular
430	lottery
432	more efficient with current spending
433	Higher taxes on big business.
434	charge for luxary sale. traffic fines. charity incentive
440	Letting government officials take a pay cut
442	use some of the gambling tax.
449	Road tax
452	take some money off from another program, put it on public transportation
453	redistribute money tthat was generated by outsourcing the toll roads
457	evauating curtain found in different programs so that they can found public transportation
462	Should be a limit on how much they raise it, so they cant raise it like evry week
466	more tollways
474	Taxing commercial trains, generate money from advertising on trains
475	dont know
477	lottery
482	statelocal and federal funds
483	some lottery money
485	businesses should help donate money to transportation, its going to benefit them
490	INCREASING TRUCKER FEES
492	Dont know
493	grants from government and private organizations
495	Hit all basic ons youd expect. dk
496	increase gas prices and food prices
499	private or a company that specializes in transportantion
501	claen up the monetary waste in governmnet
503	Balance the existing budget.
507	Food, cig, alcohol tax
513	charity

517	take a look at some of the places like pot barrel spending(attchment to bill that only bring funding to a specific area)
519	selling to transportation lines
524	businesses that employ great number of people and help the number of people with their public transportation. give them a voucher
535	funds from federal government.
548	Use the lottery at the Horse Track
551	make the goiv be more efficient. they should use the money they already have
554	using tax dollars we already have a little different '
557	lotterries and things like that
558	proceeds for the lottery
560	toll roads and increase gas tax
563	increasing sales tax
567	grants
568	rental Houses.
570	some sort of advicing, take some gambling tax
575	it should use the money it has. stadiums
581	Maybe focus more on things that need to be taken care of instead of haveing testing, there are to many test concerned on pointless things, thw government
590	we need to have not many bebefits for lobbists
594	Changin what they spend money on , re prioritize what they are spending money on
598	lottery
606	I think right now every one is on the kick of all the foreigners come over and we are letting them live the good life on our money.
607	no ideal
610	investment funding. invest current moniews where they would get money in return
613	change the goverment's saleries. they make too much and their retirement is too good.
620	SOME KIND OF FUND RAISING CAMPAIGN
622	reallocation of funds
627	INVESTMENTS IN MONEY MARKETS TO ACQUIRE ADDITIONAL FUNDING
636	use some of the money they are using to build parks and walkways
638	If their is enough money to bail out large company, then their is a gigantic form of money. The whole govemnment should change. No tea pot muesum spead out the money to who needs it. Revamp the way the federal money is spent.
643	taxes on liquor and cigarettes.
644	liquor tax
646	CUTTING DOWN ON ALL OF THEIR COMMITIES
650	they shohuld budget what they a lready have

654	CUT GOVERNMENT SPENDING AND INCREASE SPENDING ON PUBLIC TRANSPORTATION.
657	lottery
659	people pay to have advertisements put on bus, police cars and fire engines.
660	reallocating funds from the government officials' salaries
661	federal money, help from federal government
666	apply for grants, federal funding.
667	I would just say they need funding so they can run through the night (needs to run for more hours). The bus stops running around here at 8:00pm and thats just not long enough.
670	It should come out of the government themselves.
673	incentives, or rebats back.
674	TAPE INTO THE WEALTHY A LITTLE BIT MORE
680	Stop building the freakin librbaries.
693	It's probably there, they're probably using it somewhere else. (probe) I mean 100,000 projects probably only worth 40.
695	TAX ON GAMLING
701	Sifting funding from other resources. Like money from big businesses. And Private funding.
703	donations
712	Taxes.
725	Raise in tobbacoo taxes
726	the lottery funds
744	Tolls, usage tax.
748	Gas tax
749	Within the budget, organize to find it within the budget
750	Volunteers should help out to donate money.
751	use the lottery
753	donations or sponsors
756	A ROAD TAX
762	should be given an option to buy a pass
769	private corporations
771	try to use the lottery.
776	cutting excess in state budget
781	BETTER USE OF THE FUNDING THEY HAVE
783	they could collect donations of people that it personally affects and cut their budget on things that are less importaan
785	I know we tax cigarettes, lottery and alcohol, can we get money out of the drunk and reckless drivers?
786	fund raiser,walkathon
790	private funding

813	Don't spend money on stadiums instead use that money for the public transportation. Something that everyone can use not a luxury item such as sporting entertainment.
815	get rid of the uneeded spending
822	what ever they spend it on thats not important. Can find something that they are waisting money. not taxing people. can go to europe by bus or train
825	i think they might take a look at the governor salary
828	using some of that lottery money
834	Cut costs statewide by reducing the amount of zoo's and museums.
846	grants
847	stave gov should look into federal money and private funding
853	some people should pay more taxes. the poor people are paying what the rich should
858	i think they should cut some of these salaries of the federal govt
863	BORROW FROM OTHER EXISTING FUNDS
869	Cut down on tax breaks, especially for companies leaving the state.
880	increase sales tax
883	Reallocation.
886	lessening senetors pay
904	federal grants
909	They should put a tax on cigarettes and make smokers pay for it.
923	issue bonds
927	Cut budget costs.
930	they can do some kind of fundraiser
947	Endowments and grants.
960	lottery, gambling and horse tracks
962	They should raise fares.
965	private donations
973	The lottery should actually do what its supposed.
977	private parties fund raising
980	they shoud ask the federal state for some funding
983	Get funds from federal government.
988	tire tax
993	funding for lottery
1000	Raise license fees such as hunting,operators,cdl,ect.
1003	They could have a lot of lottery money that they're throwing around for other things.
1004	increase wheel tax
1005	somehting that is not getting anybody any where
1010	wages allow drive to give free ride.
1015	lottery
1016	more on social sercurity, medicare, and medicade.

1017	using funds from the gambling
1018	lower prices in gas
1028	I THINK THE GOVERNMENT NEEDS TO STOP GIVING OUT TAX BREAKS FOR THE BIG COMPANIES AND WASTING MONEY ON LOBBYEST
1029	private donations and industrial donations
1035	Taking some money from other programs.
1039	to help the handicap people.
1041	casino, flat tax
1045	use more from the gas tax
1046	rebates for new hybrid cars
1050	regular taxtion
1062	Raise the taxes for the rich.
1063	riverboat/casino money
1065	from the casinos
1069	Maybe, I would say a sales tax on voluntary things like restaurants, purchase of alcohol, purchase of cigarettes.
1070	some of these big ceo should pay more taxes than what they are getting away with.
1075	charities, providing tax release for corp.who would would help come up with money for public transportation.
1082	rail system
1089	bonds
1097	FEDERAL GRANT
1106	government help donations
1114	Grants.
1115	Use a highway tax.
1120	investing
1123	federal grant,
1128	sales tax
1129	Probably cutting out some of the higher-ups, cut some of their stuff, make them come down to the working class person.
1139	I think it should be privately funded to a certain extent. I don't think it should be state-owned; I would think that it could be privately owned.
1141	restructing the wastefullnes that have in their on burrancy manors and govenors should volunteer instead of paying large amts to do it
1144	alternative resources to lower cost
1150	toll roads
1163	Reducing the amount of money that we pay to the federal government.
1165	the system itself
1166	Local Bond issue
1175	bonds
1176	gambling

1187	maybe environmentally some type of funding
1194	corporate sponsership
1200	taking money from the war and applying it to transportation.
1203	private donations form facilities that it benefits, elerly programs
1206	bring more jobs
1209	A USAGE FEE
1219	bonds
1220	to reorganize budgets so that they dont waste money
1221	comercial subsidies from specific jobs
1224	they ought to give up they get paid (salary level)
1230	hoosier lottery money
1233	BASE FUNDING ON USE OF THE SYSTEM
1235	reallocating current lotto income
1246	Liscensing fee's for drivers lisecense, trucks, plates
1252	welfare system
1258	bonds
1259	Have a bake sale.
1260	a use tax
1271	toll roads and bridges and government officials should decrease thier pay raises
1272	better education health insurance crisis need to fix that to where people can afford it
1273	private industries, or contracting out. private companies are better than having the govt do it
1274	the amount of money it brings in for from highway construction should be used for public transportation
1275	Big Buisness donations
1277	re-allocate the funding that they have
1282	grants
1293	cut back on pay
1295	local gov can get grants from federal or state government
1296	casino's, and state lottery
1297	private funding
1299	Privatization.
1300	increase all the liquor and toboacoo taxes
1310	Some kind of goverment funding
1316	private interprise
1320	Private donations, from philantropic community, donations for earth friendlyness green funds
1330	tolls
1332	fund raising
1337	money not used for presidential election. Form PACs
1343	cut back on government spending, official's salaries, donations

1347	Use the toll road money, isnt that what it was for?
1359	some federal funding
1364	Well they could get money from the corporation better than they do I believe, the taxes from corporations.
1365	Casino votes.
1370	local taxes should go up, transportation tax,
1376	county fairs and other local funding
1378	in our county theres an old bridge and now they are building a huge bridge in a country road that nobody uses. They are waiting the money. we have to get rid of the politicians its all about who they owe and who's got their hands in their pocket
1382	The Lottery
1384	BETTER BUDGETING
1385	tax breaks for public transportation
1387	reducing spending in other government programs
1389	increase the capital gains tax, windfall profit tax to put into public transportation.
1390	Quit builing new buildings for baseball games when the old stadium is good. Give more thought to the senior citizens, poor people, and persons with disabilities. Quit making elderly people wait too long for buses.
1391	not paying the top officials so much
1403	TOLL ROADS
1404	add a lato ticket that would be specifically for that
1409	looking at tourism components.
1413	cigarette and alcohol tax
1428	Lottery
1431	Bond issue.
1433	grants
1436	redirect funds from other gov programs not education
1450	taxation from court fines
1451	reallocatin existing sources of support
1452	some kind of fundraising, maybe the millionaries should give a little
1453	Lowering gas prices or using the money they're making off of the gas right now and putting that towards public transportation
1454	dont think their is anything new that hasn't been covered.
1458	grants
1465	stop sending money overseas.
1466	Cutting things that don't need to be paid for.
1475	reallocate funding to healthcare and transportation and to improve some healthcare programs
1477	thats a good question, im not sure
1490	lottery
1497	business should be tax more and fine for emmissions from pollution

1498	taxing oil producers
1501	tax tobacco and alcohol
1506	reduce government spending
1512	Grants.
1517	building some kind of energy
1521	i dont think they should get paid as much and shoulndt reitre with a six figure income. they should learn to live like everyone else.
1526	Build more toll roads
1527	cooperate with businesses and schools.
1554	reducing waste in other areas. there is alot of watinf=g in moey and they should put a stop to it and use the money for something important.
1558	corporate and business donations
1559	polution tax, the biggest polluters pay the most
1563	grants
1564	take money for wealthy people cut there pays
1566	diverting from other subsidies, or raising corperate tax
1577	lottery money
1588	grant funding,
1592	the way they are handling money.
1593	give money to funds that have nothing to do with the people. spent 5 million dollars just to talk about building a baseball stadium. money could have been spent otherwise.
1598	Fundraisers
1599	Maybe the could get help somehow from the federal government.
1600	i think the govt should pay for it
1604	money off lotteries.
1607	Businesses
1633	increase the sales tax.
1637	toll roads if they build more interstates.
1641	Offer more service.
1650	How about the profits from all the lotteries? It was supposed to take care of some of this stuff and it doesn't.
1652	Toll roads
1653	need to find funding for schools.Maybe fundraiseing and shelter for the homeless.
1659	reduction in funding elsewhere
1664	It would benefit businesses to have their people having public transportation, so I think maybe businesses should be able to donate money and get credit for it.
1670	grants
1673	DO AWAY WITH ALL THE PORK AND UNECESSARY SCIENTIFIC RESEARCH THAT DOES NOT HAVE ANY VALUE
1691	grants from the broke federal gorvenment

1695	i dont know maybe asking them rich folks
1697	tabocco tax
1699	private businesss
1706	corporate income tax
1707	Tap into the lottery money that we receive and use it on the public transportation. Tax the oil companies who are making so much money and make them pay for the public transportation. Also use the luxury tax money.
1710	senators and other people like that could havea paycut. They are there to serve us.
1719	increase gas on trucks
1720	They should put more tax on wealthier people.
1727	quit throwing money at public schools
1728	they should get help from businesses for example disabilities home
1731	toll roads
1742	Economize the government spending within.
1743	reallocate casino income
1749	Capital gains tax
1758	Tax cigarettes, alcohol, sporting events, and licensing more. Use more money from traffic fines.
1759	toll roads
1760	gambling boat that give grants and stuff they could get money from them
1762	reduce expenditure elsewhere
1764	Smaller government.
1774	I would say corporations.
1775	cigarette tax alcohol taxing
1776	lottery tickets
1780	Tax the rich like they should.
1789	use some of the lottery money
1790	grants, tax breaks for corporation to uses buses
1791	Tax the rich more to help the poor people.
1795	more toll roads
1803	grants
1809	private sector
1813	cutting out waste and expenses
1820	partial funding from the federal government.
1823	Get grants to pay for it.
1826	Increase in the local income tax.
1833	more in the schools also
1839	private buisness or corporations
1841	goverment waste, all the money they waste on stupid stuff
1844	Get out of the war in Iraq and use the money we spend there on things like public transportation in the U.S.

1847	cutting back somewhere else to put money
1849	Have sporting venues help pay for public transportation.
1850	grants, in kind donations
1853	local lottery, casinos
1867	hiway fees additional toll roads.
1870	Road use tax on our license plates
1873	dnt think taxes should go up but that usually how it goes
1882	maybe bonds, grants
1886	Taxing large companies in the area.
1891	advertise and private enterprise
1900	budget cut cutting their payroll
1901	revamp the parks
1904	business funding
1910	fundraisers
1915	grants
1917	company-employee subsidy
1924	People that can get out and work that put in their fair share of taxes; the ones that don't work should pay more taxes/fares for taxes for public transportation.
1925	Another penny on our sales tax.
1928	I think they should fund the upkeep on it. I think the government should pay the drivers. They should produce the drivers for our public transportation.
1930	Shifting the funds.
1940	The people who use it should pay.
1943	Sponsorship.
1944	none
1945	Donations, tourist attractions to generate money, benefits, free concerts, charitable events.
1948	Find a way to make it happen.
1957	Public Transportation liscense plates, hotel tax
1958	Redirect the money that is currently being used for the toll roads.
1967	Tax incentives and benifits for private companies to deveolpe other transportation alternatives.
1969	Building both Conseco Fieldhouse and Lucas Oil Stadium was not money well spent. Distrubute the funds better.