

1.0 Executive Summary

This report presents the results of a market research study carried out by Cambridge Systematics for the Indiana Department of Transportation (INDOT). The purpose of the study was to identify issues of importance to the general public, as well as particular stakeholders, as INDOT seeks to update its Policy Plan. The project had several components:

- A general survey of the population, described in Section 2.0;
- Outreach to stakeholders concerned about environmental justice issues in Indiana, described in Section 3.0;
- Outreach to stakeholders concerned about land resource issues, described in Section 4.0;
- Outreach to stakeholders concerned about freight issues, described in Section 5.0; and
- Suggestions for how INDOT might change the Policy Plan, in response to the findings of the market research, outlined in Section 6.0.

Summaries of each of these topics are provided below.

■ 1.1 General Survey

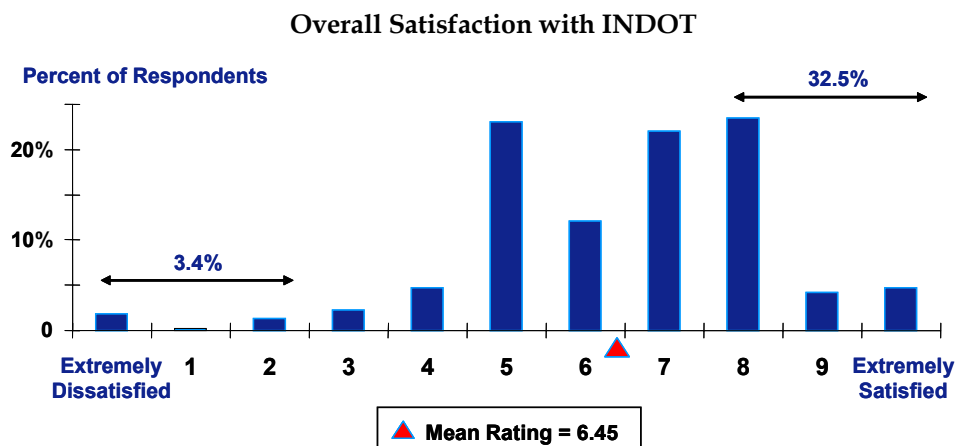
A central component of the market research study was a general survey of the Indiana population aimed at validating INDOT's Policy Plan and identifying emerging areas on which INDOT should focus. The survey also provided an opportunity to identify what transportation issues are important to Indiana residents, and how well INDOT performs in these areas. Ultimately, many of the survey questions may become the basis for customer-based performance measures that INDOT could monitor periodically.

The survey was carried out in May 2003 by the Indiana University Public Opinion Laboratory. It obtained information about travel behavior and socioeconomic characteristics of Indiana residents, analyzed customer attitudes through ratings of policy priorities, importance ratings, and satisfaction with INDOT services, and identified differences in behavior and attitudes by geography, socioeconomic (income, gender, age, auto ownership, household size), and travel behavior. They survey also over-sampled in areas with high concentrations of environmental justice populations.

The survey found that:

- Respondents mostly agree with INDOT’s priorities;
- Funding allocation appears to be “about right,” but those seeking a reallocation would shift funding to transit, intercity air, and new road construction;
- People are generally aware of INDOT but its exposure could be increased;
- Customers’ view of INDOT has remained the same or has slightly improved over the past 12 months;
- INDOT has a positive image in trustworthiness, keeping drivers safe, and helping Indiana’s economy; and
- Areas of concern include treating all parts of the State fairly, and completing construction/ maintenance projects on-time.

In general, there was high and uniform “overall satisfaction” with INDOT.



Cambridge Systematics evaluated the survey responses for potential implications for long-range transportation in Indiana. We found that the nine policy areas were still relevant (although there are some emerging areas that should get recognized). People think that INDOT should focus on:

- Congestion management;
- Improved highway maintenance; and
- Scheduling of construction and maintenance projects.

Some of the key emerging issues include land resources and homeland security. We also found some polarization of opinion regarding INDOT’s role in bus and passenger rail service.

■ 1.2 Environmental Justice Perspectives

The concept of *environmental justice* refers, in the broadest sense, to the goal of identifying and avoiding disproportionate adverse impacts on minority and low-income individuals and communities. Environmental justice extends community impact assessment by examining communities based on characteristics such as race, ethnicity, income, age, and even disability. States and their local transportation partners are working today to ensure that the principles of environmental justice are consistently upheld with regard to transportation planning.

The population of the State of Indiana, consistent with patterns observed throughout the country, is becoming increasingly diverse racially and ethnically, including persons having limited English proficiency. There also is an increasing desire on the part of INDOT, and other state DOTs as well, to improve the manner in which they respond to customer needs, including the explicit recognition of differences among different population or stakeholder groups. The challenge in identifying, monitoring, and satisfying the needs of INDOT's customers is made all the more challenging because of the increasing diversity in the State's population.

In response to these needs, INDOT directed Cambridge Systematics to address environmental justice issues as part of a larger market research study. Four specific work program activities were undertaken:

1. Analysis of existing demographic conditions and trends building on the results of the Year 2000 Census of the Population;
2. Interviews with stakeholder, MPO, and INDOT staff;
3. Use of a stratified sample in the market research telephone survey to ensure a statistically valid sample of minority population subgroups; and
4. Development of potential actions that INDOT could take based on the cumulative results of the previous four information gathering activities.

Research Findings

The research found that:

1. **Indiana is becoming more diverse.** Populations of racial minority groups are increasing at a much faster rate than the general public. Hispanic population has more than doubled between 1990 and 2000.
2. **Seven percent of Indiana households do not own an automobile.** As expected, differences in vehicle ownership and travel mode to work vary by income, race, and

ethnicity. Non-EJ households have on average 2.12 vehicles, while EJ households average 1.65 vehicles.

3. **EJ and non-EJ respondent ratings were significantly different for a number of policy issues.** EJ respondents rated the following policy issues as being more important, including:
 - a. Improve bus service;
 - b. Make mobility easier for pedestrians and bicyclists;
 - c. Improve the mobility of low-income, elderly, and the disabled; and
 - d. Improve transportation safety.
4. **EJ issues mentioned.** Specific environmental justice issues mentioned included highway locations that have divided black communities and disproportionately displaced black residents, frequency of bus service, hours of the day during which public transportation services are available, adequate financing for public transportation, safe location of bus stops, and roadway maintenance practices.
5. **Environmental justice is, however, perceived by many as not being an important issue except in Northwest Indiana.** “There are so many other issues overshadowing environmental justice that it is rarely mentioned.” Major transportation projects are located more in rural and suburban portions of the State than in the central cities where minority populations are living.”
6. **English proficiency is not a significant issue.** Indiana’s population having only a limited proficiency in the English language is growing but to date has not been a problem in terms of communication needs.
7. **INDOT has taken some steps, but needs to do more.** Virtually all of the interviewees acknowledged that INDOT has taken a number of important initiatives to address potential issues of environmental justice. At the same time, they felt INDOT needs to do more. A number of the interviewees felt that not all of the desired perspectives and viewpoints were either at the table or fully represented.
8. **Programmatic-level activity is needed.** The majority of existing environmental justice analyses are occurring at the project level. Consideration of environmental justice also should be addressed in the development of transportation policies and during the development of systems-level transportation plans and programs.

Potential Actions

Cambridge Systematics compiled a list of actions that INDOT can take to better incorporate environmental justice considerations into their day-to-day activities, including establishment of a department-wide environmental justice policy. Such a policy would direct that issues associated with the human environment receive the same level of attention as

is now devoted to the natural environment. In particular, INDOT should look for context sensitive solutions that “think beyond the pavement.” Supporting these efforts would be additional training throughout all aspects of planning, maintaining, and operating Indiana’s transportation system, including training for MPO and local staff.

■ 1.3 Land Resources Perspectives

One of the nine policies adopted by the Indiana Department of Transportation (INDOT) is to “establish and maintain a transportation system that is consistent with the State’s commitment to protect the environment.” One element of this policy is the manner in which INDOT utilizes and protects existing land resources, an issue that has become increasingly complex as suburban areas have developed and population growth is occurring in rural and small urban areas. The movement of housing and jobs into rural and small urban communities has come to be known as “rural sprawl,” complementing the more familiar concepts of urban and suburban sprawl. Open space is being converted to development at a rate that is faster than the growth in either population or housing units.

With these changes, there are particular concerns regarding the protection of agricultural lands, forestland, wetlands, wildlife habitats, and other sensitive land uses. The economy of rural areas is no longer limited to or even primarily agricultural, with housing, manufacturing, service, and trade taking on larger roles. In parallel, agricultural productivity has increased. The result is a tension over the manner in which the increased need for transportation services is met and the manner in which existing land resources are utilized. While there is recognition of the fact that the economic, development, and demographic character of Indiana is changing, there is at the same time a desire to preserve existing characteristics of the land.

Transportation agencies today are actively endorsing the concept of environmental stewardship, where investments in transportation are made in a manner that improves the quality of the environment and affected communities as well as providing improvements in mobility and accessibility.

The purpose of Task 4 of the Market Research Project was to consider how INDOT should change the way in which land resource issues and the interests of resource agencies are addressed in the transportation planning process. The work involved an identification and analysis of specific land resource issues that are of interest in different parts of the State; interviews with resource agency staff, local transportation planning officials in several small cities and rural areas, and special interest groups; and an examination of the experience of other states and regions in incorporating land resource considerations into transportation planning.

Findings

Several findings emerged from Cambridge Systematics' research:

1. Concerns over land resource issues have grown in recent years, and will continue to grow in importance with respect to transportation decision-making.
2. Land resource issues have relatively high visibility in some parts of the State, but the importance of these issues varies by location.
3. There is a widespread feeling that transportation improvements eventually lead to new development. This development, though, has both positive and negative impacts, with different people or interests placing different weights on these impacts.
4. There is not a strong culture of land use planning in Indiana. This makes it especially difficult to achieve land resource-related objectives.

Potential Actions

While a number of the interviewees noted that INDOT has made important progress in the past five to 10 years in taking land resource issues into account when making specific project alignment and other design decisions, most also felt that it was important that INDOT further expand its consideration of land resource issues not only at the project design stage but also during systems-level planning. Three general areas were noted where INDOT could improve the manner in which land resource considerations are integrated into transportation planning:

1. **Coordination, Outreach, and Training**, including improving the visibility and treatment of land resource issues in the statewide planning process. This would help to overcome an image as an adversary or an agency that acts without considering feedback from others, and instead work to build a reputation as a collaborator.
2. **Improve INDOT's Analytical Capabilities**, including finishing a uniform, comprehensive, and accessible GIS system at the state level for use in project design and impact assessment, and developing tools for evaluating the impacts of transportation projects on land resources/land use and urban growth, both at a micro level (e.g., interchange) and a macro level (city/region).
3. **Design, Operation, and Management of the Transportation System**, including implementation of access management policies, to maintain traffic flow on arterial roads, revising landscaping and roadside maintenance practices to reduce the spread of invasive species, and acquiring development rights in selected impact areas, such as wetlands adjacent to an improved highway.

1.4 Perspectives of Freight Stakeholders

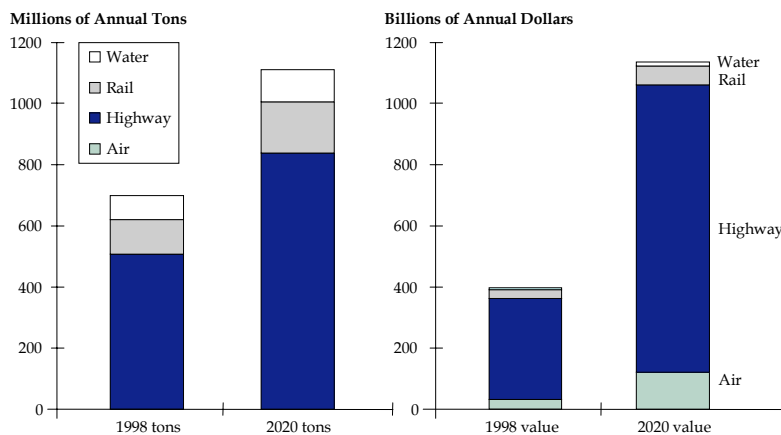
With its historic role as a center for agriculture and manufacturing, and its strategic location serving regional, national, and international markets, Indiana’s economy is heavily dependent on freight movement. These freight operations, in turn, have significant impact on Indiana’s transportation system. INDOT has made initial attempts to understand the issues and concerns of the freight community through development of its Intermodal Management System, and incorporation of freight issues into some corridor studies.

The purpose of this research was to identify concerns of major shippers and carriers for consideration in the statewide planning process, and provide initial recommendations to INDOT regarding the integration of freight and goods mobility issues in the statewide plan.

Background

In 1998, approximately 698 million tons of freight moved to, from, or within Indiana, representing roughly \$398 billion worth of goods in transit. The State is forecast to

Growth in Freight Movements by Mode (1998 to 2020)



experience dramatic tonnage growth of nearly 60 percent over the next 20 years. By 2020, roughly 1.11 billion tons (\$1.14 trillion) of freight is expected to use Indiana’s freight network. A slight shift mode from rail and water to highway and air is expected over that time period.

There are four industries in Indiana that are particularly intensive users of the State’s freight system. Non-

Metallic Minerals and Coal are both associated with the mining industry. Primary Metal Products, Transportation Equipment, and Chemicals are all associated with the Manufacturing sector. Secondary Traffic and Freight All Kinds both represent shipments of consumer goods, and thus have a strong tie to the retail sales business. Finally, Farm Products are part of the agricultural sector. Therefore, in gathering market research on the State’s freight transportation, we focused on input from the agriculture, mining, manufacturing, and retail industries.

In addition to generating a significant volume of freight traffic, Indiana is also a major corridor for through traffic moving between the Western, Mountain, and Midwestern states,

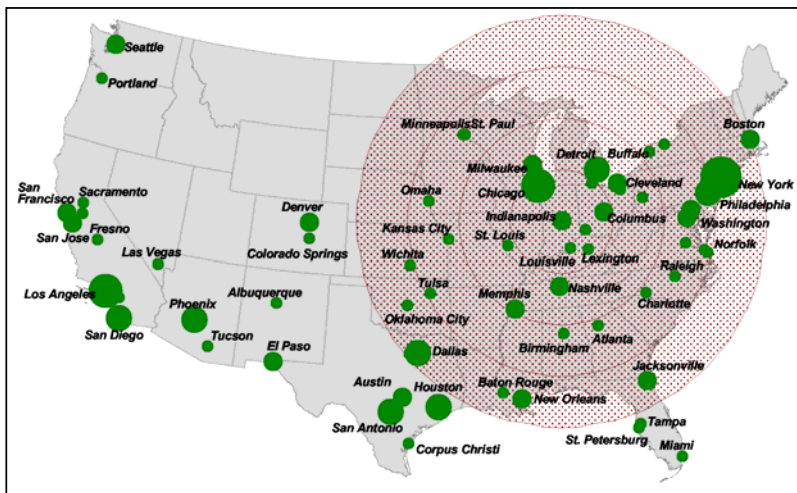
and the Northeast. As much as one-third of the freight on Indiana's transportation network passes through the State without stopping, making through carriers a significant stakeholder in the State's freight system.

Stakeholder Interviews

Cambridge Systematics staff conducted interviews with 22 members of the freight community in Indiana. The list of interviewees was generated through discussions with INDOT staff, members of other state authorities, trade associations, and industry groups. The interviewees represent both the shipper and carrier perspectives, include a range of

larger and smaller stakeholders, and run the gamut of modes and industries in Indiana.

Major Metropolitan Areas¹ within a One-Day Delivery Radius of Indiana (Scaled by Population)



¹ Cities with a population greater than 250,000 residents.

neighboring states. The quality of the rail services was also cited, as was the strong modal connections for bulk goods.

On the shortcomings and challenges side, every stakeholder mentioned the Interstate system gap in southwest Indiana (where I-69 is proposed). Others mentioned that congestion is increasing at particular bottleneck locations, limited capacity to cross the Ohio River, and substandard physical geometries at older interchanges and ramps. Though the Interstate system was noted as excellent, some stakeholders had concerns about the non-Interstate system. Lack of rest areas for long-distance truckers was cited as a safety concern.

Stakeholders that depend on rail were concerned that short line railroads lack the resources to upgrade their lines to the new 286,000 pound-per-axle track standard required by modern bulk cars. Similarly, smaller terminal and elevator operators often do not have the resources to lengthen sidings to accommodate more cars.

Recommended Next Steps Related to Freight

Based on the results of the freight interviews, INDOT should examine its current efforts to see whether they support the identified strengths or address the identified shortcomings. The business community's input may provide added importance to existing initiatives that advance goods movement, or may suggest additional measures that INDOT should take to improve the State's freight system.

A number of the interviewed freight stakeholders expressed interest in continuing to actively coordinate with INDOT on freight planning issues. In light of this interest and the valuable perspective that members of the freight community could bring to a statewide freight planning effort, INDOT should consider establishing a standing freight stakeholders committee to provide a formal and ongoing dialogue with industry representatives.