Indiana Department of Correction's Occupational Optimization Model

In September 2018, the Research Division of the Indiana Department of Correction (DOC) responded to a solicitation for research to address the improvement of Indiana's talent pipeline and workforce. This solicitation came in the form of a data visualization challenge hosted by Indy Big Data, a conference in Indianapolis, Indiana, which focuses on innovations in the realm of big data manipulation and presentation. The project was designed to strengthen statewide efforts being made by Indiana Governor, Eric Holcomb, to develop a skilled and ready workforce. The data competition was made possible through an interdepartmental data sharing venture hosted by Indiana's Management Performance Hub (MPH). This state agency serves as the data analytics warehouse, data integration expert, and research support for other state agencies.

The DOC model focused on addressing areas of future vocational training as well as placement of offenders into training based on the vocational needs of their potential release area and determining appropriate employment options for trained offenders re-entering society. Data used in this analysis included those from the Indiana Department of Workforce Development (DWD), the Indiana University Business Research Center (IBRC), and in-house data extracted from the Indiana Department of Correction's various data management systems[1]. Information used from DWD outlined occupational employment estimates, occupational projections, and occupation composite education scores. Data incorporated from IBRC focused on the means of transportation to work within particular economic growth regions. Variables taken from each of these sources were weighted to give preference to variables which are particularly important when placing offenders in occupations. These needs were:

- higher paid occupations,
- occupational sectors with higher growth,
- occupational sectors which were larger,
- lower educational requirements, and
- higher availability of public transit.

These particular factors were given priority due to there traditionally being barriers to employment for re-entering offenders.

The Tool and Operation of the Dashboards – Addressing Employment Needs of Vulnerable Populations

The dashboards themselves were arranged using a two-pronged approach. The first prong contains two dashboards focused on sharing knowledge while the second prong is meant to focus case planning and offender placement for best post-release outcomes.

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[1] All non-DOC information can be located at https://hub.mph.in.gov/group/education-and-workforce; Department of Correction data sources were pulled from stock populations and programmatic eligibility based on classification information in the Offender Information System (OIS).

The first high level decision maker dashboard (Fig. 1) addresses job sector growth by size and the median wage associated with those occupations which were most closely aligned with the needs of the population. Information in the top screen allows decision-makers to see holistically the projected growth rates of particular regions, the top growing jobs in the for the vulnerable populations, and which of those occupations currently have trainings or job

Fig. 1 – Occupational Alignment

skills associated with them that are available through the Indiana Department of Correction. This top screen allows departmental planning to align the department's offerings with job sector growth projections. With the addition of the filter for Economic Growth Region, this dashboard allows for either a broad or narrow view of vocational opportunities in Indiana.
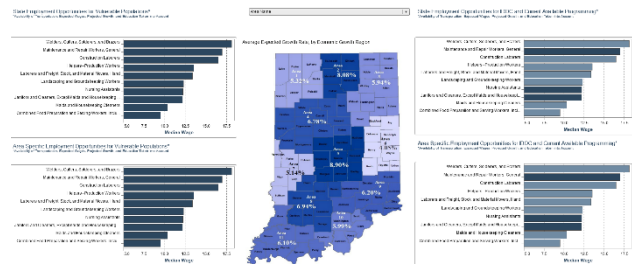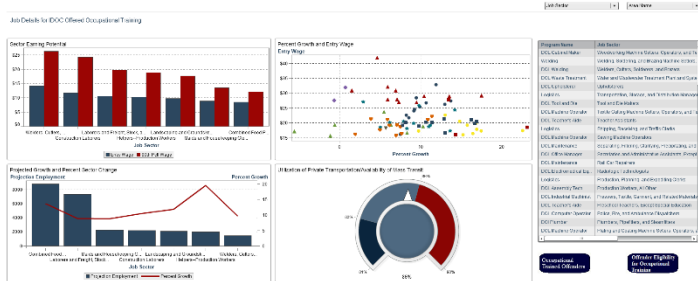

Fig. 2 – IDOC Offered Occupational Training Dashboard

The next high level decision maker dashboard (Fig. 2) focuses on information which explores job sector growth and availability in particular Economic Growth Region. Through the use of the filters for area name and job sector, the decision-maker can tailor occupational training based on what IDOC currently provides, best pay potential, relative growth of a job sector in comparison to the entry wage, access to public transportation, and the current programmatic and job offering and what post incarceration vocations they are associated with. This dashboard is intended as a view into regional growth in comparison to offerings which allows for jobs and training to be tailored to market demand.

The next prong of the dashboard suite focuses on facility or parole district level action that can be taken to directly impact the job and supervision placement of offenders both within IDOC facilities but also in the community.

Fig. 3 – Re-entry Details for Offenders with Occupational Training

The first dashboard (Fig. 3) allows casework managers in the facility and parole agents to select offenders who will be released during a particular period of time or who are currently under supervision. The casework manager or parole agent can then select to see only their caseload. This particular visualization then allows the agent or casework manager to see offender specific information which includes the top rated occupation for the offender based on the jobs or trainings that they received
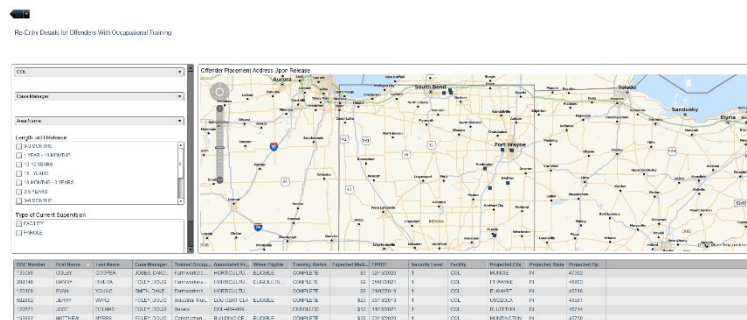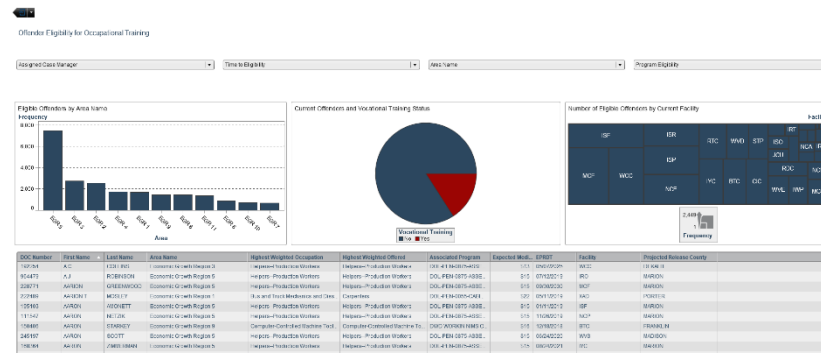
while incarcerated. A map then allows the staff member to see exactly where the offender has been approved to live upon release or the last known address of the offender, to assure best employment placement.

Fig. 4 – Offender Eligibility for Occupational Training

The second dashboard (Fig. 4) focuses on offenders currently incarcerated at IDOC facilities and determines a recommended occupation for the offender after release based on their expected Economic Growth Region upon release and other personal characteristics of the offender and area such as educational attainment[2] and access to transportation in the region[3]. The casework manager can locate a list of offenders currently on his/her caseload and sort them by earliest possible release date to determine a queue for training or job placement. The casework manager can also filter for those who will be eligible during a period of time (within three months, six months, etc.) to assist in the prioritization of his/her caseload.

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[2] Educational attainment is used in the weighting of job fit. Preference is given to occupations which require lower levels of educational attainment.

[3] Access to transportation is used in the weighting of job fit. Preference is given to occupations which are located in Economic Growth Regions with higher access to public transportation.
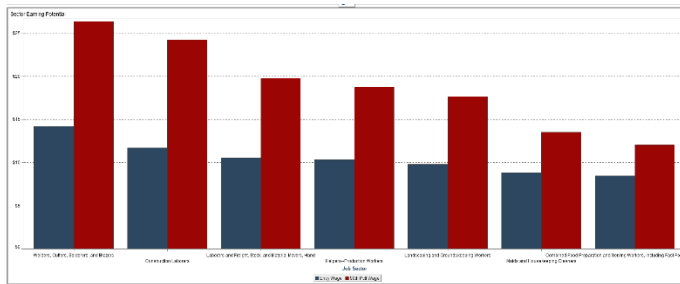
Main Findings

When looking at statewide average expected job sector growth and highest expected pay, as illustrated in Graph 1 by the dark blue bars, the top three vocational training gaps were General Maintenance and Repair, Nursing Assistants, and Janitors. The addition of certifications in these areas would allow offenders to be placed into these high demand, high pay jobs.

GRAPH 1. PROGRAM AVAILABILITY AND GROWTH MATCH
State Employment Opportunities for IDOC and Current Available Programming*
*Availability of Transportation, Expected Wages, Projected Growth, and Education Taken into Account

GRAPH 2. EARNING POTENTIAL

In the analysis there were certain vocational placements which offer the offender more future earnings. Graph 2 outlines the top seven weighted occupational placements for the offender population. This graphic only shows those vocations which IDOC currently has vocational training or job placements. When considering placements, earning potential warrants special consideration, as it is an accepted metric for life stability[4]. The top three statewide earning potentials for this vulnerable population were: welding, construction, and laborers in the freight, stock and material handling fields.

GRAPH 3. UTILIZATION OF PRIVATE TRANSPORTATION/AVAILABILITY OF MASS TRANSIT

When selecting occupational sectors for placement of offenders, it is important to consider the availability of mass transit in a particular region. Graph 3 shows the median utilization of private transportation in all regions. Through the selection of particular regions the customer is able to ascertain if an offender re-entering into the region would have access to transportation for his/her occupation. This is particularly important due to the fact that transportation is one of the main barriers to employment for the offender population[5].
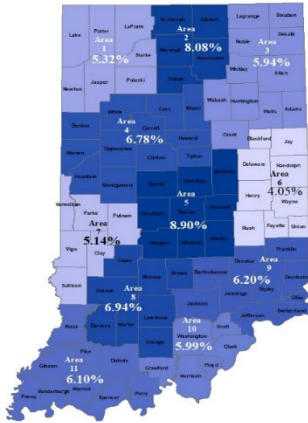
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[4] https://www.forbes.com/sites/jmaureenhenderson/2012/12/22/job-stability-vs-job-satisfaction-millennials-may-have-to-settle-for-neither/#7dd0c52c4bc1

[5] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses

Main Findings for Economic Growth Region 1

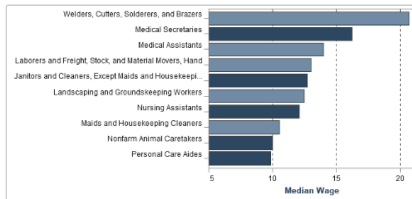Average Expected Growth Rate, by Economic Growth Region

Economic Growth Region 1 includes Lake, Porter, LaPorte, Newton, Jasper, Pulaski, and Parke Counties in the northwestern corner of Indiana.

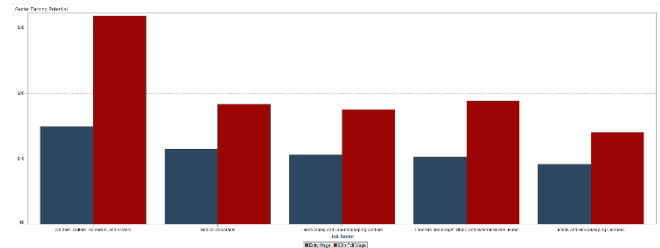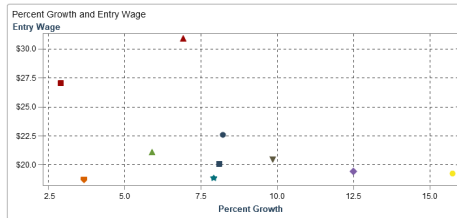**GRAPH 1A. PROGRAM AVAILABILITY AND GROWTH MATCH IN REGION 1**

According to Graph 1A, in Region 1, the three biggest training gaps are: medical secretaries, janitors, and nursing assistants.

GRAPH 2A. EARNING POTENTIAL IN ECONOMIC GROWTH

Graph 2A shows the job sectors with the highest future earning potential, which IDOC currently offers training. The three highest earning potentials are in the following: welders, medical assistants, and landscapers.
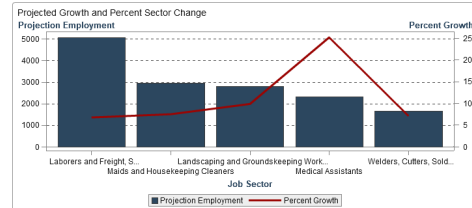
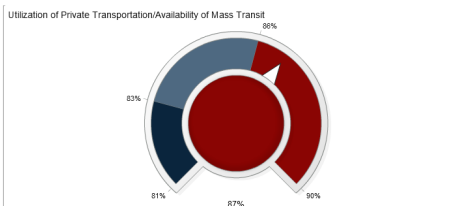**GRAPH 3A. PERCENT GROWTH AND ENTRY WAGE COMPARISON**

Each of the top ten job sectors selected for Region 1 in the analysis have a positive projected growth rate. The highest growth rate is in the area of plumbing/pipefitting at nearly 16%. The highest entry wage job sector is in the area of transportation, storage, and distribution management at $30.90 an hour. It is important to note, however, that this job sector has one of the lowest projected growth rates of the selected vocations.

Graph 4A outlines the overall projected size of the job sector and compares that size with the projected job sector growth. Note that laborers is one of the biggest job sectors in Area 1, however the overall growth is low in comparison to medical assistants. This graphic is particularly important when looking at placement of offenders in to areas that do not compete with the general public.

GRAPH 4A. PROJECTED SECTOR SIZE AND GROWTH

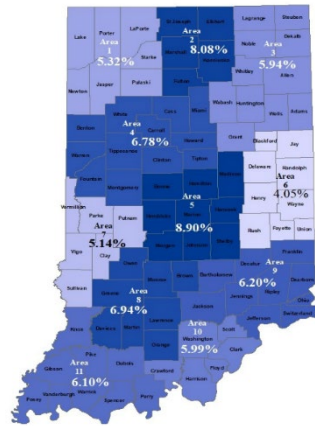**GRAPH 5A. ULITIZATION OF PRIVATE TRANSPORTATION**

Access to mass transit (carpooling, buses, etc.) is particularly important with offenders re-entering society.[6] When judging access, the mean percent utilization of private transportation was taken as the lower bound of light blue range while the other markers were set based on standard deviations above and below the mean. Region 1 does not have ready access to public transportation. Placement of offenders into cities with these types of transportation is very important (such as Gary).

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[6] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses

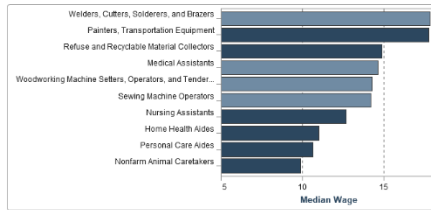## Main Findings for Economic Growth Region 2

Average Expected Growth Rate, by Economic Growth Region

Economic Growth Region 2 includes St. Joseph, Elkhart, Marshall, Kosciusko, and Fulton Counties in northern Indiana.

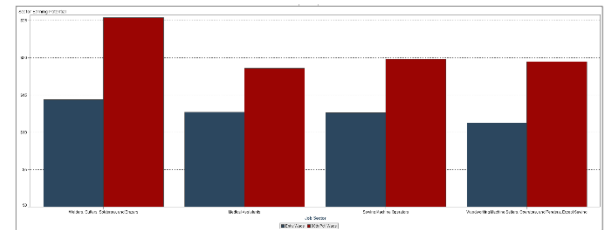**GRAPH 1B. PROGRAM AVAILABILITY AND GROWTH MATCH IN REGION 2**

Area Specific Employment Opportunities for IDOC and Current Available Programming*
*Availability of Transportation, Expected Wages, Projected Growth, and Education Taken into Account
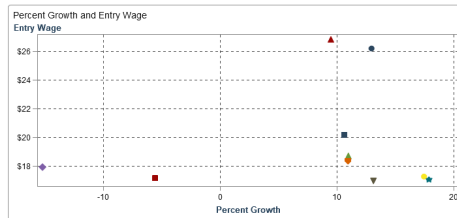
According to Graph 1B, in Region 2, the three **biggest training gaps** are: **painters for transportation equipment, refuse and recyclable material collectors, and nursing aids.**

GRAPH 2B. EARNING POTENTIAL IN ECONOMIC GROWTH

Graph 2B shows the job sectors with the **highest future earning potential**, which IDOC currently offers training. The three highest earning potentials are in the following: **welders, medical assistants, and sewing machine operators**.
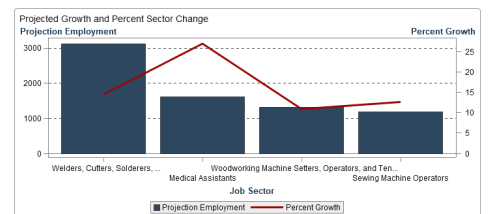
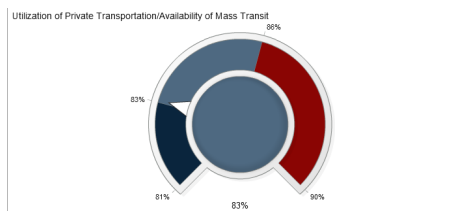**GRAPH 3B. PERCENT GROWTH AND ENTRY WAGE COMPARISON**

Each of the top ten job sectors selected for Region 2 in the analysis have a positive projected growth rate. The **highest growth rate** is in the area of **heating, air conditioning, and refrigeration mechanics at nearly 18%**. The **highest entry wage job sector** is in the area of **transportation, storage, and distribution management at $26.86** an hour. It is important to note, however, that this region has two vocations that have negative growth rates: executive secretaries and electrical repair for commercial and industrial equipment.

GRAPH 4B. PROJECTED SECTOR SIZE AND GROWTH

Graph 4B outlines the overall projected size of the job sector and compares that size with the projected job sector growth. Note that **welders** is one of the **biggest job sectors** in Region 2, however the **overall growth is low in comparison to medical assistants**. This graphic is particularly important when looking at placement of offenders in to areas that do not compete with the general public.

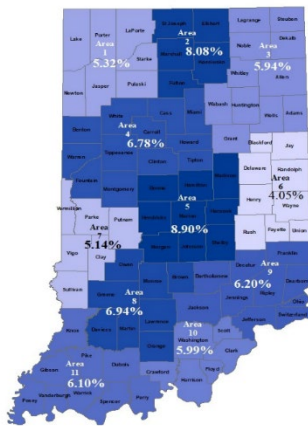**GRAPH 5B. ULITIZATION OF PRIVATE TRANSPORTATION**

Access to mass transit (carpooling, buses, etc.) is particularly important with offenders re-entering society.[7] When judging access, the mean percent utilization of private transportation was taken as the lower bound of light blue range while the other markers were set based on standard deviations above and below the mean. Region 2 has **better than average access to public transportation**. Placement of offenders into cities with these types of transportation is very important (such as South Bend).

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[7] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses
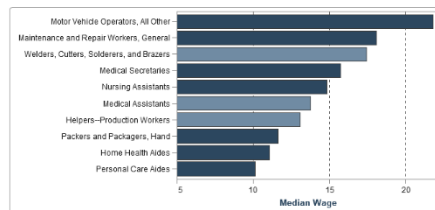
Main Findings for Economic Growth Region 3

Average Expected Growth Rate, by Economic Growth Region

Economic Growth Region 3 includes LaGrange, Steuben, Noble, DeKalb, Whitley, Allen, Wabash, Huntington, Wells, Adams, and Grant Counties in the northeastern portion of Indiana.

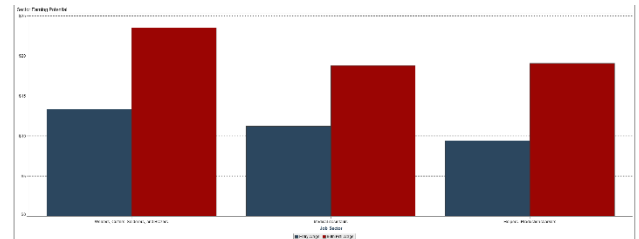**GRAPH 1C. PROGRAM AVAILABILITY AND GROWTH MATCH IN REGION 3**

Area Specific Employment Opportunities for IDOC and Current Available Programming*
*Availability of Transportation, Expected Wages, Projected Growth, and Education Taken into Account
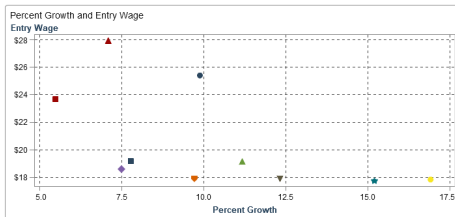
According to Graph 1C, in Region 3, the three **biggest training gaps** are: **maintenance and repair workers, nursing assistants, and janitors**.

Graph 2C shows the job sectors with the highest future earning potential, which IDOC currently offers training. The three **highest earning potentials** are in the following: **welders, medical assistants, and production workers**.

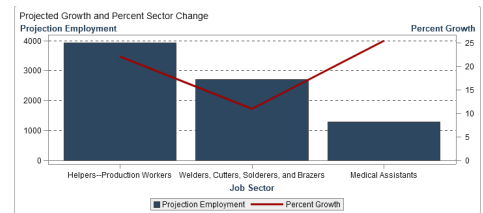**GRAPH 2C. EARNING POTENTIAL IN ECONOMIC GROWTH**

GRAPH 3C. PERCENT GROWTH AND ENTRY WAGE COMPARISON
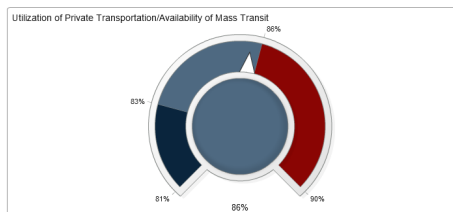

Percent Growth and Entry Wage

Each of the top ten job sectors selected for Region 3 in the analysis have a positive projected growth rate. The **highest growth rate** is in the area of **plumbers/pipefitters at nearly 17%**. The **highest entry wage** job sector is in the area of **transportation, storage, and distribution management at $27.92** an hour. It is important to note, however, that this region has no vocations in the top 10 weighted vocations that have negative growth rates.

Graph 4C outlines the overall projected size of the job sector and compares that size with the projected job sector growth. Note that **welders is one of the biggest job sectors** in Region 3, however the overall **growth is low in comparison to medical assistants and production workers**. This graphic is particularly important when looking at placement of offenders in to areas that do not compete with the general public.

GRAPH 4C. PROJECTED SECTOR SIZE AND GROWTH

Projected Growth and Percent Sector Change

GRAPH 5C. ULITIZATION OF PRIVATE TRANSPORTATION

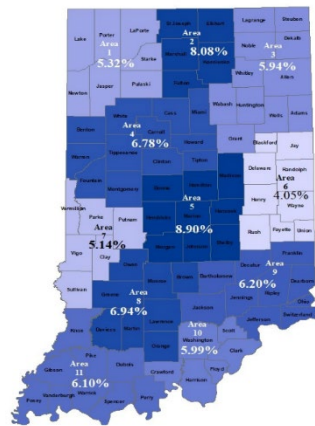Utilization of Private Transportation/Availability of Mass Transit

Access to mass transit (carpooling, buses, etc.) is particularly important with offenders re-entering society.[8] When judging access, the mean percent utilization of private transportation was taken as the lower bound of light blue range while the other markers were set based on standard deviations above and below the mean. Region 3 has **average access to public transportation**. Placement of offenders into cities with these types of transportation is very important (such as Ft. Wayne).

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[8] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses
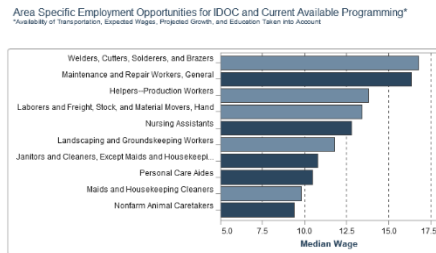
Main Findings for Economic Growth Region 4

Average Expected Growth Rate, by Economic Growth Region

Economic Growth Region 4 includes Benton, White, Carroll, Cass, Miami, Warren, Fountain, Tippecanoe, Montgomery, Clinton, Howard, and Tipton Counties in the northwest central portion of Indiana.
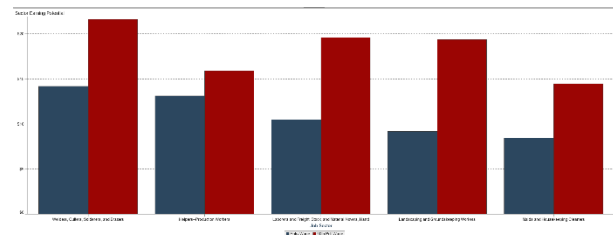
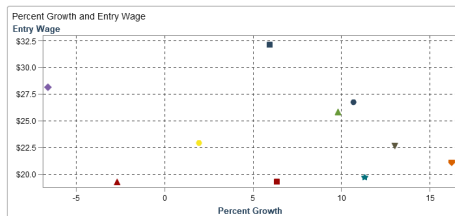**GRAPH 1D. PROGRAM AVAILABILITY AND GROWTH MATCH IN REGION 4**

Area Specific Employment Opportunities for IDOC and Current Available Programming*
*Availability of Transportation, Expected Wages, Projected Growth, and Education Taken into Account

According to Graph 1D, in Region 4, the three **biggest training gaps** are: **maintenance and repair workers, nursing assistants, and janitors**.

GRAPH 2D. EARNING POTENTIAL IN ECONOMIC GROWTH

Graph 2D shows the job sectors with the highest future earning potential, which IDOC currently offers training. The three **highest earning potentials** are in the following: **welders, production workers, and laborers in the freight, stock, and material moving field**.

GRAPH 3D. PERCENT GROWTH AND ENTRY WAGE COMPARISON
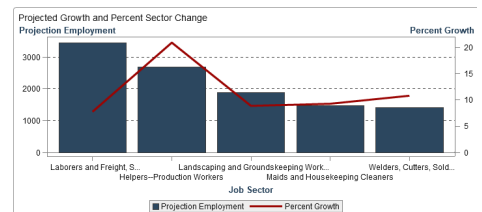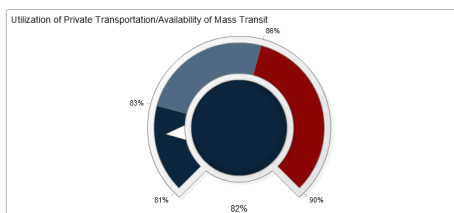

Percent Growth and Entry Wage

Each of the top ten job sectors selected for Region 4 in the analysis have a positive projected growth rate. The **highest growth rate** is in the area of **radiologic technologists at 16.23%**. The **highest entry wage** job sector is in the **area of transportation, storage, and distribution management at $32.10** an hour. It is important to note, however, that this region two vocations in the top 10 weighted vocations that have negative growth rates (water/waste management and engine assemblers).

Graph 4D outlines the overall projected size of the job sector and compares that size with the projected job sector growth. Note that **laborers in the freight, stock, and material handling** fields are one of the **biggest** job sectors in Region 4, however the overall **growth is low in comparison to production workers**. This graphic is particularly important when looking at placement of offenders in to areas that do not compete with the general public.

GRAPH 4D. PROJECTED SECTOR SIZE AND GROWTH

Projected Growth and Percent Sector Change

GRAPH 5D. ULITIZATION OF PRIVATE TRANSPORTATION

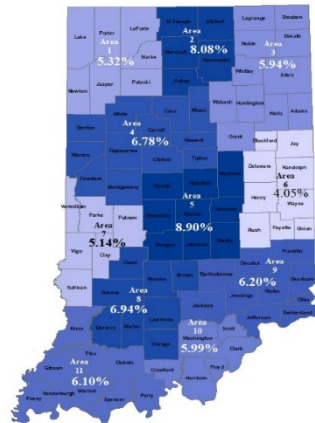Utilization of Private Transportation/Availability of Mass Transit

Access to mass transit (carpooling, buses, etc.) is particularly important with offenders re-entering society.[9] When judging access, the mean percent utilization of private transportation was taken as the lower bound of light blue range while the other markers were set based on standard deviations above and below the mean. Region 4 has **better than average access to public transportation**. Placement of offenders into cities with these types of transportation is very important (such as Lafayette).

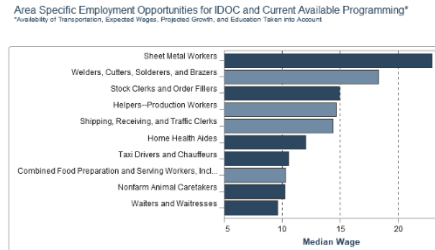[9] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses

Main Findings for Economic Growth Region 5

Average Expected Growth Rate, by Economic Growth Region

Economic Growth Region 5 includes Boone, Hamilton, Madison, Hancock, Shelby, Johnson, Morgan, and Hendricks Counties in the central portion of Indiana.
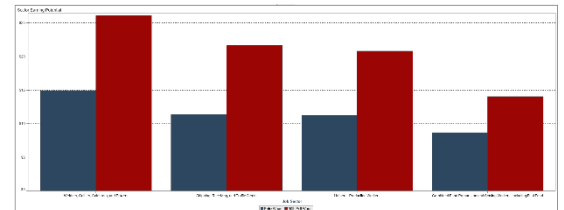
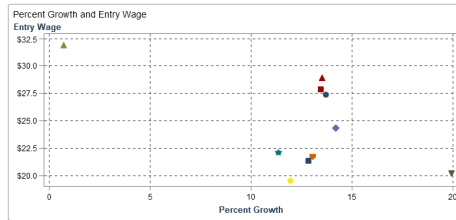**GRAPH 1E. PROGRAM AVAILABILITY AND GROWTH MATCH IN REGION 5**

Area Specific Employment Opportunities for IDOC and Current Available Programming*
*Availability of Transportation, Expected Wages, Projected Growth, and Education Taken into Account

According to Graph 1E, in Region 5, the three **biggest training gaps** are: **sheet metal workers, stock clerks, and home health aides**.

Graph 2E shows the job sectors with the highest future earning potential, which IDOC currently offers training. The three **highest earning potentials** are in the following: **welders, shipping/receiving clerks, and production workers**.

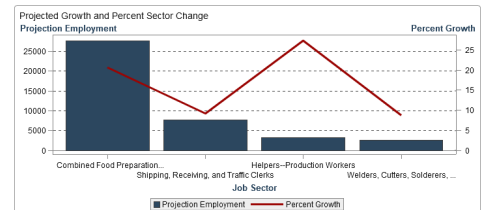**GRAPH 2E. EARNING POTENTIAL IN ECONOMIC GROWTH**

GRAPH 3E. PERCENT GROWTH AND ENTRY WAGE COMPARISON
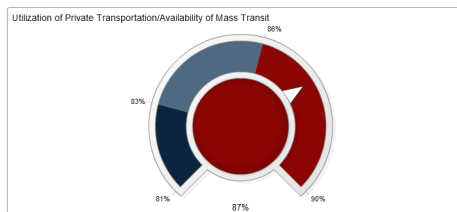

Percent Growth and Entry Wage

Each of the top ten job sectors selected for Region 5 in the analysis have a positive projected growth rate. The **highest growth** rate is in the area of **heating, air conditioning, and refrigeration repair at nearly 20%**. The **highest entry wage** job sector is in the area of **electrical and electronic repairs at $31.90** an hour. It is important to note, however, this job sector also has negligible rate of projected growth.

GRAPH 4E. PROJECTED SECTOR SIZE AND GROWTH

Graph 4E outlines the overall projected size of the job sector and compares that size with the projected job sector growth. Note **food preparation and service is one of the biggest job sectors** in Region 5, however the overall **growth is low in comparison to production workers**. This graphic is particularly important when looking at placement of offenders in to areas that do not compete with the general public.

Projected Growth and Percent Sector Change

GRAPH 5E. ULITIZATION OF PRIVATE TRANSPORTATION

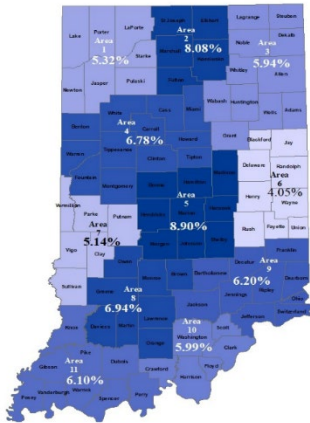Utilization of Private Transportation/Availability of Mass Transit

Access to mass transit (carpooling, buses, etc.) is particularly important with offenders re-entering society.[10] When judging access, the mean percent utilization of private transportation was taken as the lower bound of light blue range while the other markers were set based on standard deviations above and below the mean. Region 5 **does not have ready access to public transportation**. Placement of offenders into cities with these types of transportation is very important (such as Indianapolis).

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[10] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses

Main Findings for Economic Growth Region 6

Average Expected Growth Rate, by Economic Growth Region

Economic Growth Region 6 includes Blackford, Jay, Delaware, Randolph, Henry, Wayne, Rush, Fayette, and Union Counties in the east central portion of Indiana.

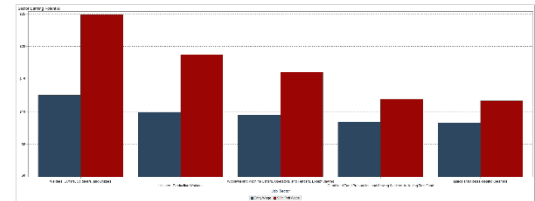### GRAPH 1F. PROGRAM AVAILABILITY AND GROWTH MATCH IN REGION 6

Area Specific Employment Opportunities for IDOC and Current Available Programming*
*Availability of Transportation, Expected Wages, Projected Growth, and Education Taken into Account
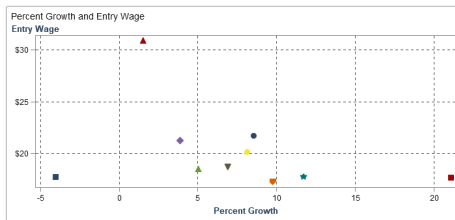

According to Graph 1F, in Region 6, the three **biggest training gaps** are: **stock clerks, home health aides, and personal care aides**.

Graph 2F shows the job sectors with the highest future earning potential, which IDOC currently offers training. The three **highest earning potentials** are in the following: **welders, production workers, and woodworking machine setters/operators**.

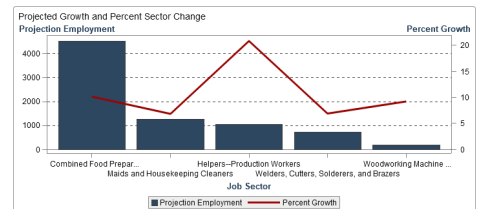### GRAPH 2F. EARNING POTENTIAL IN ECONOMIC GROWTH

GRAPH 3F. PERCENT GROWTH AND ENTRY WAGE COMPARISON

Each of the top ten job sectors selected for Region 6 in the analysis have a positive projected growth rate. The **highest growth** rate is in the area of **Computer Numerically Controlled Machine (CNC) operators at nearly 21%**. **The highest entry wage** job sector is in the area of **transportation, storage, and distribution management at $31.91** an 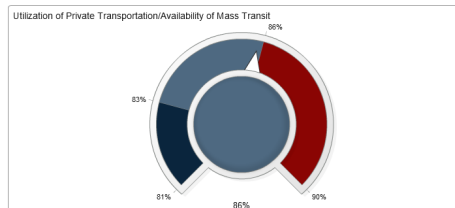hour. It is important to note, however, this job sector also has negligible rate of projected growth. Additionally, one of the sectors has a negative projected growth rate (tool and die makers).

Graph 4F outlines the overall projected size of the job sector and compares that size with the projected job sector growth. Note **food preparation and service is one of the biggest job sectors** in Region 6, however the overall **growth is low in comparison to production workers**. This graphic is particularly important when looking at placement of offenders in to areas that do not compete with the general public.

GRAPH 4F. PROJECTED SECTOR SIZE AND GROWTH

GRAPH 5F. ULITIZATION OF PRIVATE TRANSPORTATION

Access to mass transit (carpooling, buses, etc.) is particularly important with offenders re-entering society.[11] When judging access, the mean percent utilization of private transportation was taken as the lower bound of light blue range while the other markers were set based on standard deviations above and below the mean. Region 6 has **average ac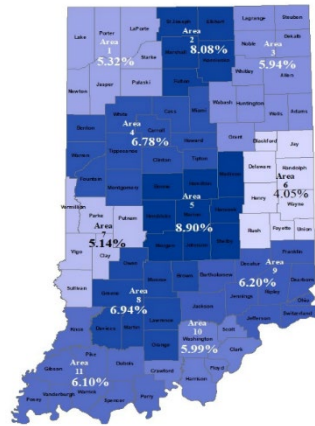cess to public transportation**. Placement of offenders into cities with these types of transportation is very important (such as Richmond).

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[11] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses

Main Findings for Economic Growth Region 7

Average Expected Growth Rate, by Economic Growth Region

Economic Growth Region 7 includes Vermillion, Parke, Putnam, Vigo, Clay, and Sullivan Counties in the west central portion of Indiana.
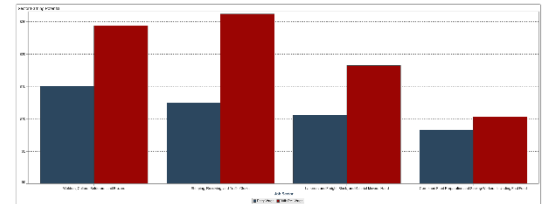
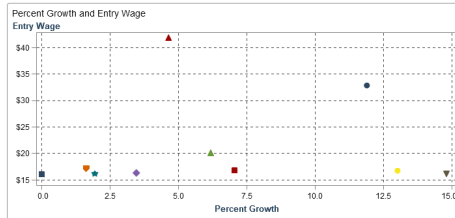**GRAPH 1G. PROGRAM AVAILABILITY AND GROWTH MATCH IN REGION 7**

Area Specific Employment Opportunities for IDOC and Current Available Programming*
*Availability of Transportation, Expected Wages, Projected Growth, and Education Taken into Account

According to Graph 1G, in Region 7, the three **biggest training gaps** are: **maintenance and repair workers, nursing assistants, and janitors**.

GRAPH 2G. EARNING POTENTIAL IN ECONOMIC GROWTH

Graph 2G shows the job sectors with the highest future earning potential, which IDOC currently offers training. The three **highest earning potentials** are in the following: **welders, shipping, receiving, and traffic clerks, and freight, stock, and material movers**.
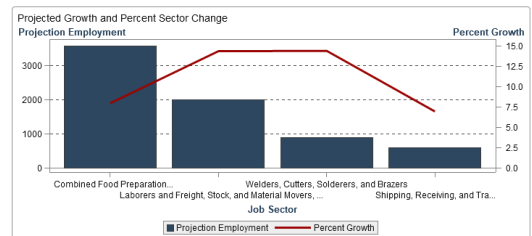
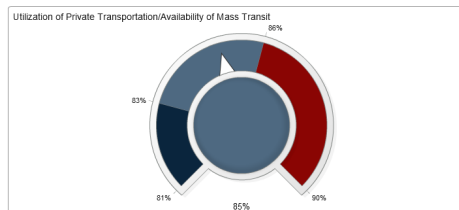**GRAPH 3G. PERCENT GROWTH AND ENTRY WAGE COMPARISON**

Each of the top ten job sectors selected for Region 7 in the analysis have a positive projected growth rate. The **highest growth** rate is in the vocation **machinist** at **nearly 15%**. The **highest entry wage** job sector is in the **area of transportation, storage, and distribution management at $41.88** an hour.

GRAPH 4G. PROJECTED SECTOR SIZE AND GROWTH

Graph 4G outlines the overall projected size of the job sector and compares that size with the projected job sector growth. Note **food preparation and service is one of the biggest job sectors** in Region 7, however the overall **growth is low in comparison to welding**. This graphic is particularly important when looking at placement of offenders in to areas that do not compete with the general public.

GRAPH 5G. ULITIZATION OF PRIVATE TRANSPORTATION

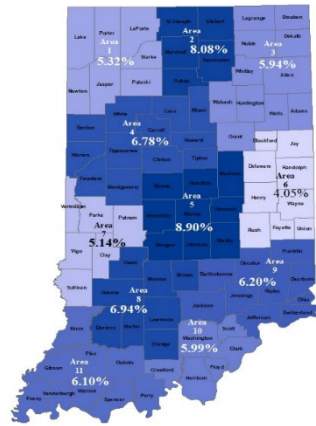Utilization of Private Transportation/Availability of Mass Transit

Access to mass transit (carpooling, buses, etc.) is particularly important with offenders re-entering society.[12] When judging access, the mean percent utilization of private transportation was taken as the lower bound of light blue range while the other markers were set based on standard deviations above and below the mean. Region 7 has **average access to public transportation**. Placement of offenders into cities with these types of transportation is very important (such as Terra Haute).

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[12] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses
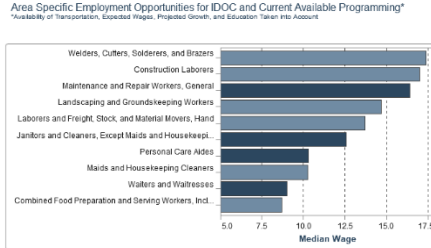
Main Findings for Economic Growth Region 8

Average Expected Growth Rate, by Economic Growth Region

Economic Growth Region 8 includes Owen, Monroe, Brown, Greene, Lawrence, Daviess, Martin, and Orange Counties in the southwest central portion of Indiana.
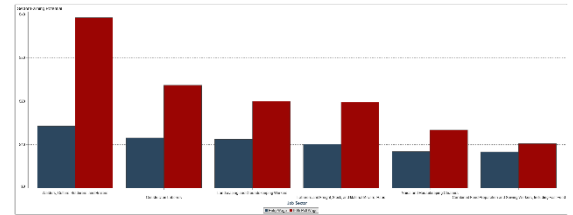
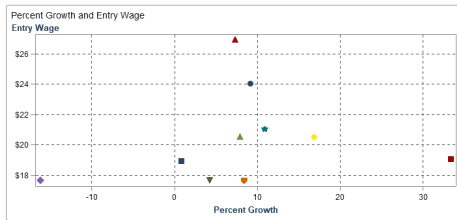**GRAPH 1H. PROGRAM AVAILABILITY AND GROWTH MATCH IN REGION 8**

Area Specific Employment Opportunities for IDOC and Current Available Programming*
*Availability of Transportation, Expected Wages, Projected Growth, and Education Taken into Account

According to Graph 1H, in Region 8, the three **biggest training gaps** are: **maintenance and repair workers, janitors, and personal care aides**.

GRAPH 2H. EARNING POTENTIAL IN ECONOMIC GROWTH

Graph 2H shows the job sectors with the highest future earning potential, which IDOC currently offers training. The three **highest earning potentials** are in the following: **welders, construction laborers, and landscaping**.
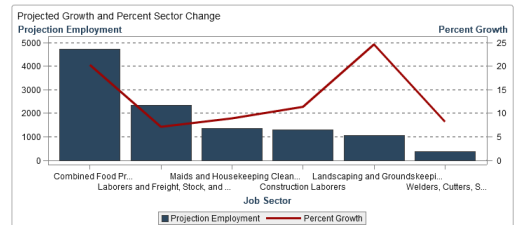
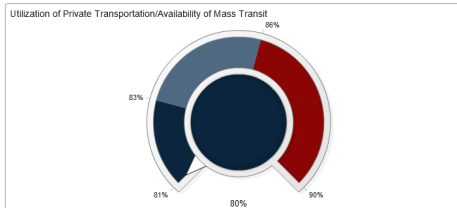**GRAPH 3H. PERCENT GROWTH AND ENTRY WAGE COMPARISON**

Each of the top ten job sectors selected for Region 8 in the analysis have a positive projected growth rate. The **highest growth** rate is in the area of **transportation, storage, and distribution management at 33.33%**. The **highest entry wage** job sector is in the area of **Computer Numerically Controlled Machine (CNC) operators at $26.95** an hour. It is important to note, however, that this region has one vocation in the top 10 weighted vocations that has negative projected growth rate (executive secretaries and executive assistants).

Graph 4H outlines the overall projected size of the job sector and compares that size with the projected job sector growth. Note **freight, stock, and material handling** is one of the **biggest job sectors** in Region 8, however the overall **growth is low in comparison to food service**. This graphic is particularly important when looking at placement of offenders in to areas that do not compete with the general public.

GRAPH 4H. PROJECTED SECTOR SIZE AND GROWTH

GRAPH 5H. ULITIZATION OF PRIVATE TRANSPORTATION

Utilization of Private Transportation/Availability of Mass Transit

Access to mass transit (carpooling, buses, etc.) is particularly important with offenders re-entering society.[13] When judging access, the mean percent utilization of private transportation was taken as the lower bound of light blue range while the other markers were set based on standard deviations above and below the mean. Region 8 has 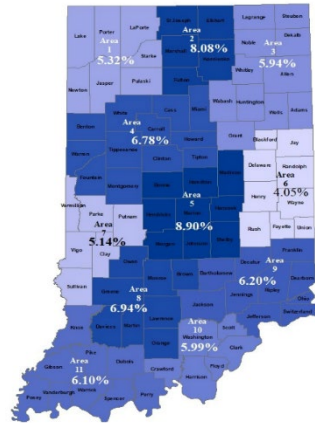**much higher than average access to public transportation**. Placement of offenders into cities with these types of transportation is very important (such as Bloomington).

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[13] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses
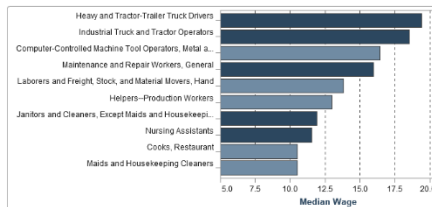
Main Findings for Economic Growth Region 9

Average Expected Growth Rate, by Economic Growth Region

Economic Growth Region 9 includes Bartholomew, Decatur, Franklin, Dearborn, Ripley, Jennings, Jackson, Jefferson, Ohio, Switzerland Counties in the southwest portion of Indiana.

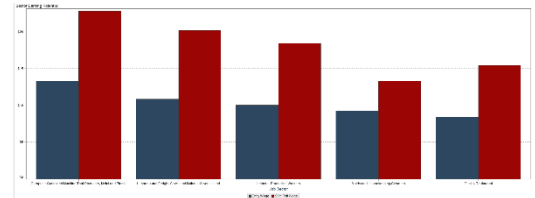**GRAPH 1I. PROGRAM AVAILABILITY AND GROWTH MATCH IN REGION 9**
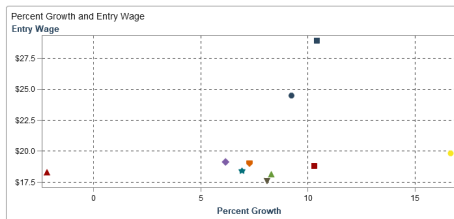

According to Graph 1I, in Region 9, the three **biggest training gaps** are: **tractor-trailer drivers, industrial truck drivers, and maintenance and repair workers**.

GRAPH 2I. EARNING POTENTIAL IN ECONOMIC GROWTH

Graph 2I shows the job sectors with the highest future earning potential, which IDOC currently offers training. The three **highest earning potentials** are in the following: **computer-controlled machine tool operator, freight, stock, and material handler, or production worker**.

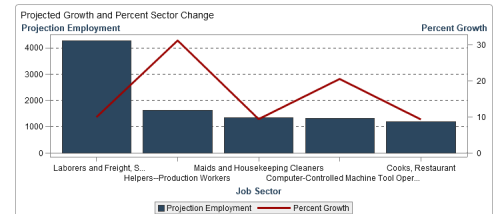**GRAPH 3I. PERCENT GROWTH AND ENTRY WAGE COMPARISON**

Each of the top ten job sectors selected for Region 9 in the analysis have a positive projected growth rate. The **highest growth** rate is in the area of **radiologic technologist at nearly 17%**. The **highest entry wage** job sector is in the **area transportation, storage, and distribution management at $28.96 an hour**. It is important to note, however, that this region has one vocation in the top 10 weighted vocations that has negative projected growth rate (water and wastewater treatment plant and system operators).
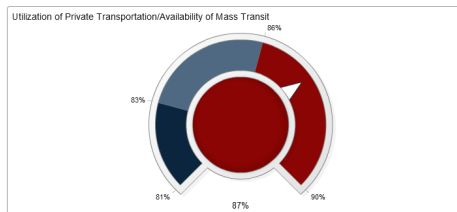
Graph 4I outlines the overall projected size of the job sector and compares that size with the projected job sector growth. Note freight, **stock, and material handling is one of the biggest job sectors** in Region 9, however the overall **growth is low in comparison to production workers**. This graphic is particularly important when looking at placement of offenders in to areas that do not compete with the general public.

GRAPH 4I. PROJECTED SECTOR SIZE AND GROWTH

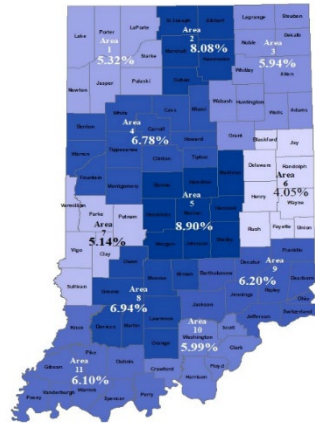**GRAPH 5I. ULITIZATION OF PRIVATE TRANSPORTATION**

Access to mass transit (carpooling, buses, etc.) is particularly important with offenders re-entering society.[14] When judging access, the mean percent utilization of private transportation was taken as the lower bound of light blue range while the other markers were set based on standard deviations above and below the mean. Region 9 has **lower than average access to public transportation**. Placement of offenders into cities with these types of transportation is very important (such as Columbus).

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[14] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses
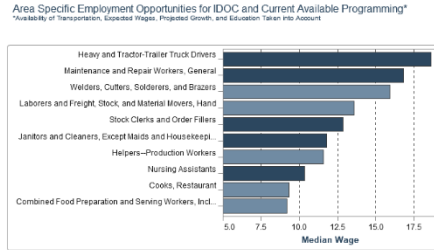
Main Findings for Economic Growth Region 10

Average Expected Growth Rate, by Economic Growth Region

Economic Growth Region 10 includes Washington, Scott, Clark, Floyd, Harrison, and Crawford Counties in the southcentral portion of Indiana.
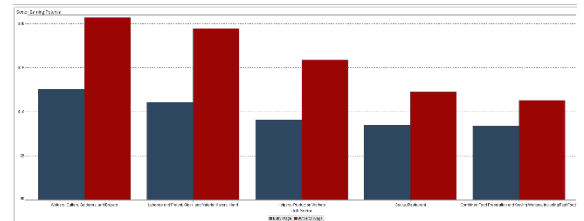
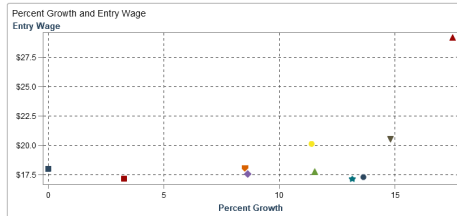**GRAPH 1J. PROGRAM AVAILABILITY AND GROWTH MATCH IN REGION 10**

Area Specific Employment Opportunities for IDOC and Current Available Programming*
*Availability of Transportation, Expected Wages, Projected Growth, and Education Taken into Account

According to Graph 1J, in Region 10, the three **biggest training gaps** are: **tractor-trailer drivers, maintenance and repair workers, and stock clerks/order fillers**.

GRAPH 2J. EARNING POTENTIAL IN ECONOMIC GROWTH

Graph 2J shows the job sectors with the highest future earning potential, which IDOC currently offers training. The three **highest earning potentials** are in the following: **welders, freight, stock, and material movers, and production workers**.
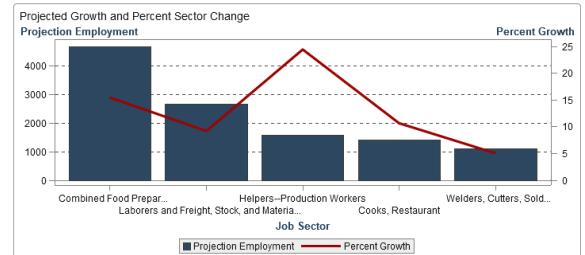
GRAPH 3J. PERCENT GROWTH AND ENTRY WAGE COMPARISON
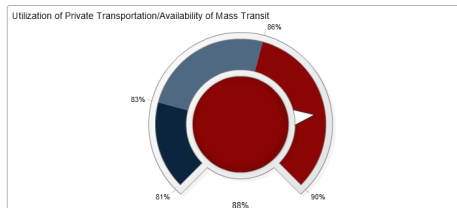

Percent Growth and Entry Wage

Each of the top ten job sectors selected for Region 10 in the analysis have a positive projected growth rate. The **highest growth** rate is in the area of **transportation, storage, and distribution management at 17.5%**. This job sector **also has the highest entry wage at $29.18** an hour.

Graph 4J outlines the overall projected size of the job sector and compares that size with the projected job sector growth. Note **food preparation and service is one of the biggest job sectors** in Region 10, however the **overall growth is low in comparison to production workers**. This graphic is particularly important when looking at placement of offenders in to areas that do not compete with the general public.

GRAPH 4J. PROJECTED SECTOR SIZE AND GROWTH

Projected Growth and Percent Sector Change

GRAPH 5J. ULITIZATION OF PRIVATE TRANSPORTATION

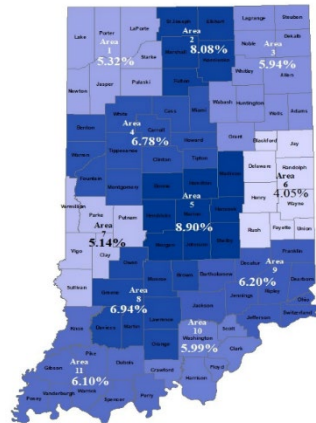Utilization of Private Transportation/Availability of Mass Transit

Access to mass transit (carpooling, buses, etc.) is particularly important with offenders re-entering society.[15] When judging access, the mean percent utilization of private transportation was taken as the lower bound of light blue range while the other markers were set based on standard deviations above and below the mean. Region 10 has **lower than average access to public transportation**. Placement of offenders into cities with these types of transportation is very important (such as Jeffersonville).

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[15] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses

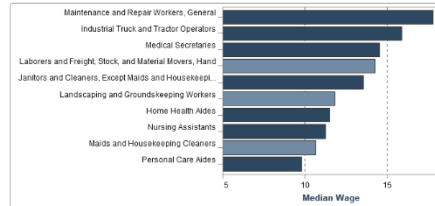## Main Findings for Economic Growth Region 11

Average Expected Growth Rate, by Economic Growth Region

Economic Growth Region 11 includes Knox, Gibson, Pike, Dubois, Perry, Spencer, Warrick, Vanderburgh, and Posey Counties in the southwest portion of Indiana.

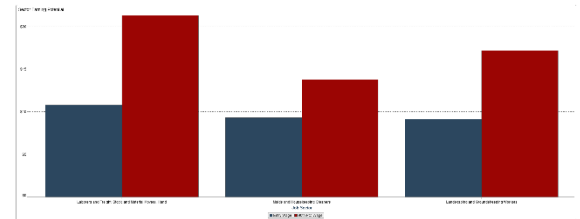**GRAPH 1K. PROGRAM AVAILABILITY AND GROWTH MATCH IN REGION 11**

Area Specific Employment Opportunities for IDOC and Current Available Programming*
*Availability of Transportation, Expected Wages, Projected Growth, and Education Taken into Account
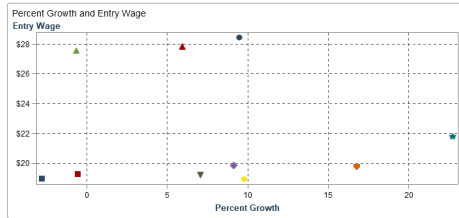
According to Graph 1K, in Region 11, the three **biggest training gaps** are: **maintenance and repair workers, industrial truck and tractor operators, and medical secretaries**. There is a great potential for training growth in this Region.

GRAPH 2K. EARNING POTENTIAL IN ECONOMIC GROWTH

Graph 2K shows the job sectors with the highest future earning potential, which IDOC currently offers training. The three **highest earning potentials** are in the following: **freight, stock, and material movers, housekeeping cleaners, and landscapers**.
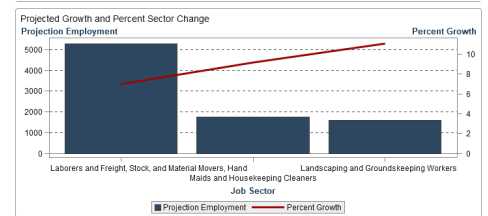
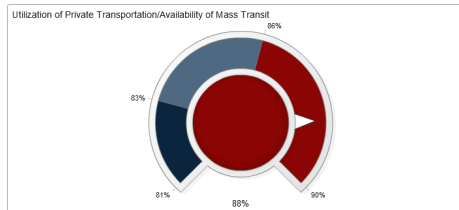**GRAPH 3K. PERCENT GROWTH AND ENTRY WAGE COMPARISON**

Each of the top ten job sectors selected for Region 10 in the analysis have a positive projected growth rate. The **highest growth** rate is in the area of **environmental engineering technicians at 23%**. The **highest entry wage** job sector is in the area of **administrative services managers at $28.44** an hour. It is important to note, however, that this region has three vocations in the top 10 weighted vocations that have negative projected growth rates (commercial electrical and electronics repairers, tool and die makers, and electrical and electronics repairers for powerhouses).

GRAPH 4K. PROJECTED SECTOR SIZE AND GROWTH

Graph 4K outlines the overall projected size of the job sector and compares that size with the projected job sector growth. Note **food preparation and service is one of the biggest job sectors** in Region 11, however the overall **growth is low in comparison to production workers**. This graphic is particularly important when looking at placement of offenders in to areas that do not compete with the general public.

GRAPH 5J. ULITIZATION OF PRIVATE TRANSPORTATION

Utilization of Private Transportation/Availability of Mass Transit

Access to mass transit (carpooling, buses, etc.) is particularly important with offenders re-entering society.[16] When judging access, the mean percent utilization of private transportation was taken as the lower bound of light blue range while the other markers were set based on standard deviations above and below the mean. Region 11 has **lower than average access to public transportation**. Placement of offenders into cities with these types of transportation is very important (such as Evansville).

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[16] https://epublications.regis.edu/cgi/viewcontent.cgi?article=1228&context=theses