# Workforce Information Grant Annual Performance Report Program Year 2024



Submitted by:
Indiana Department of Workforce Development
Research and Analysis

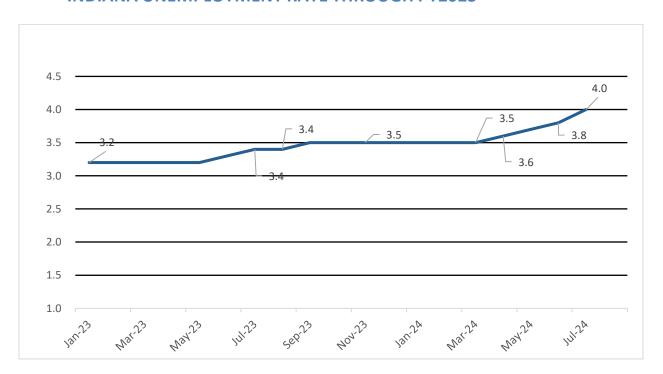
October 2024

#### Introduction

January 2023 Current Employment Statistics (CES) estimates showed the private sector had grown beyond the levels achieved prior to the pandemic. 2023 Total Private jobs continued to set a new peak for several months in 2023 and this trend has continued through July 2024. As of this writing, the Private Employment peak stands as July 2024. The largest gains have been with Private Educational & Health Services which is now at 516,800 jobs.

According to Local Area Unemployment Statistics (LAUS), the unemployment rate started at 3.2% in January 2023 and gradually increased through July 2024. The rate finally hit 4.0% in July 2024. The labor force grew to a high of 3,409,706, which is the highest labor force number since April 2020. Since that high point, the labor force gradually declined and as of July 2024, the labor force lost 16,694 over the year.

#### **INDIANA UNEMPLOYMENT RATE THROUGH PY2023**



Over the past several years, the Indiana Department of Workforce Development (DWD) has developed and keeps building on different initiatives to highlight labor market information:

1) Indiana Career Ready: Through the creation of a Demand Driven Workforce System entitled Indiana Career Ready (ICR), DWD seeks to provide more actionable information to our state's employers, job trainers, job seekers and educators by projecting the trends in our employer workforce demand. ICR leverages advanced data analytics and data science to enhance insights of employer workforce demand using data already collected by DWD, other state agencies, and external data sources (where applicable). The goal of this project is to highlight and add to the

occupational projections program with a new emphasis on current demand and greater details on the skills and certifications employers are seeking, as well as to develop an all-inclusive site for stakeholder use.

2) Longitudinal Data Systems: Indiana maintains a longitudinal data system called the Education and Workforce Database (EWD). EWD is housed in the Indiana Management and Performance Hub (MPH), hosting pre-defined, public facing data sets. EWD creates enhanced opportunities to combine workforce and education data to better understand the linkages between education and the workforce, explore employment outcomes, retention of graduates, and differential outcomes based on degree type and area of study. Partner agencies who contribute their data to the EWD database include the Indiana Commission for Higher Education (CHE), the Indiana Department of Education (DOE), the Indiana Department of Workforce Development (DWD), and the Family and Social Services Administration (FSSA). The EWD does not replace agency data collection and administration responsibilities but serves as a clearinghouse where data elements are linked across agencies.

The Research and Analysis unit within DWD manages its own longitudinal data warehouse (Research and Analysis Data Warehouse – RADW). This warehouse maintains nearly 750 million records on claims, new hires, EQUI, wage records, case management, labor exchange system, as well as data from other systems housed in DWD. This number also includes the number of records shared by the CHE and the Indiana Department of Revenue (IDOR). This combined repository of data helps to answer questions from DWD leadership, as well as data requests from external parties seeking workforce outcomes data achieved by matching wage records. The comprehensive, integrative nature of RADW plays an integral role in ensuring information regarding wage outcomes can be obtained for decision making and policy planning.

We continue to enhance our wage records with standard occupation classification codes which are received directly from employers within quarterly wage filings (described below). In 2024, we received records from the IDOR to fill in gaps in data pertaining to wages for the self-employed. We also received access to the Department of Veterans Administrative portal, which allowed us to send wage records to obtain a flag indicating if the employee is also a veteran. A data sharing agreement is in the works with the Bureau of Motor Vehicles to obtain additional information regarding residency and other demographics of our Indiana employees.

3) Workforce Data Quality Initiative (WDQI): In 2014, Indiana was awarded a grant to further the state's longitudinal research and evaluation of workforce training and educational programs. Under this grant, and in partnership with the Indiana Business Research Center (IBRC), an Occupational Assignment Engine was developed which matches occupational codes with employer UI wage records. The engine is also responsible for filling in the missing wage records data through a coding estimation schema. Data continues to be pulled in to fill in missing SOC codes with plausible values based upon observed demographic information.

In July 2017, DWD with its long-standing partner, IBRC, received another grant under WDQI Round VI to continue to improve upon the work completed in the previous round. As part of this new funding, a <u>WDQI website</u> was set up to facilitate knowledge transfer. The Occupational Assignment Engine will continue to be improved and expanded upon with new data sets incorporated as they

become available. In addition to this, knowledge transfer data modules will be developed and deployed via a website to encourage similar projects in other states.

Furthermore, in Q2 2019 DWD made large shifts in its UI collection process and began incorporating a section for 6-digit SOC code individual wage record assignment that employers are requested to fill out when submitting their quarterly UI data to the state via Employer Self Service (ESS) portal. To facilitate determining the correct SOC codes, DWD made available an occupation coding tool on its WDQI and labor market information website, Hoosiers by the Numbers, using the NASWA Occucoder O\*NET autocoding tool with project-specific modifications. Employers can use the tool to determine SOC codes based on job titles, uploading batch job titles, or individually. The employers can select either 2010 or 2018 version and the conversion to 2018 codes is then done internally to ensure consistency across all records. The tool is currently being updated to reflect the newest codes upon job title entry. Upon collection of this data the Occupational Assignment Engine will be used to validate the findings as well as look for potential discrepancies.

The latest information shows that around 63% of the employers submit occupation codes for their employees, and around 52% of employees have an occupation code associated with their wage record.

	2022 Q1	2023 Q1	2024 Q1
Employers submitting SOC	58%	59%	63%
Employee records with SOC	43%	49%	52%

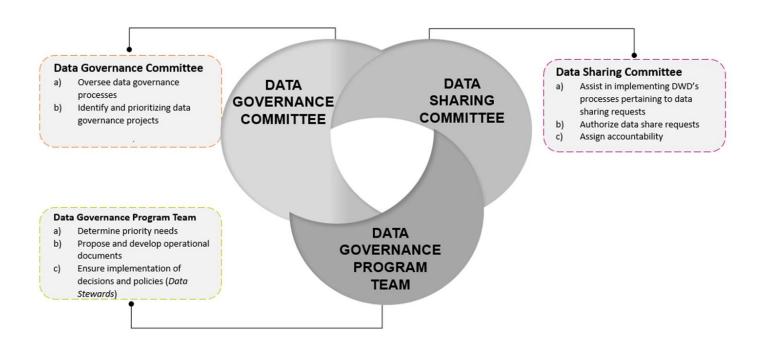
In June 2021, DWD was selected to be one of the recipients of WDQI Grant Round VIII. With the help of this grant (2021-2025), DWD has established a data governance structure and continues to collaborate with other entities to ingest additional data into the longitudinal database (self-employment, credentials, additional demographics, vehicle registrations, Veterans data, tax returns data) and publish data products that include the newly ingested data.

As part of the WDQI Round VIII award, DWD and IBRC are leveraging some additional datasets to answer a variety of research questions around Veteran status, self-employment, credential attainment, and more. For example, the team has gained access to the <u>Veteran Confirmation API</u> from the U.S. Department of Veterans Affairs (VA) to confirm the Veteran status of individuals in the state's integrated workforce intelligence system. Using this system, they will be able to answer critical questions regarding Veterans' employment status, credential attainment, wages, industries, occupations, and more.

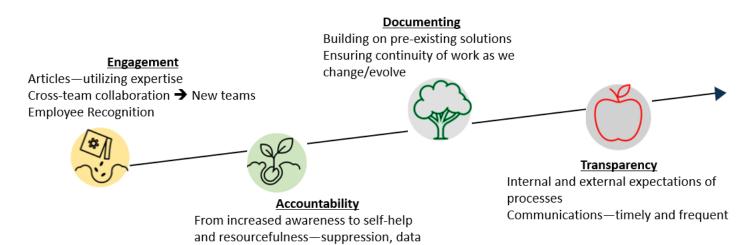
DWD has also entered a data sharing relationship with the Indiana Department of Revenue (IDOR) to incorporate tax record data into the state's existing wage records to better understand who lives and reports income in Indiana. Because wage records only cover employees who are on an Indiana employer payroll, it misses individuals who are earning income but not on a payroll, like those who are self-employed or contractual. Linking wage records in the existing workforce intelligence system with the DOR data, which covers anyone reporting income in Indiana, will help to understand the income earned by individuals with less common working situations.

DWD's Data Governance structure has been established and is depicted on the following page. The agency now has interdisciplinary teams meeting weekly, biweekly, monthly, and quarterly to discuss different data management related topics and advance data governance efforts.

## DATA GOVERNANCE STRUCTURE



# **GOVERNANCE GOALS MET**



security in motion, data handling training...

4) Case Management and Labor Exchange System: Indiana launched a combined case management and labor exchange data system (Indiana Career Connect - ICC) in October 2016. This system aligns with the state's labor market information data, interactive website, and tools for jobs seekers and career counselors. Research and Analysis houses both Indiana's labor market information division as well as the federal reporting team who are responsible for working on training performance reports as dictated through the PIRL (Participant Individual Record Layout) as well as assisting with data questions and analysis of outcomes against current economic and wage data.

#### **Provision of Regional and Statewide Labor Market Information**

#### Hoosiers by the Numbers (HBTN) LMI Website

Regional labor market analysts and DWD staff continue to provide statewide and localized labor market information for economic development efforts, job seekers, educators, career counselors, and the public. The most requested information includes:

- Labor force trends;
- Industry/Occupation employment and wage statistics;
- Business profiles;
- Demographic and characteristic profiles of individuals and households;
- Job posting analytics;
- Unemployment insurance claimant profiles; and,
- Economic Growth Region profiles.

There are a variety of consumers of labor market information, including regional operators, state and local economic development organizations, training institutions, colleges/universities, high school teachers and career counselors, WorkOne employment offices, local legislators, human resource departments, sector partnerships, grant writers, media, business groups and researchers to which each regional analyst is responsible to assist when requested.

In 2023 and 2024, the Indiana Business Research Center (IBRC who maintains the HBTN website) continued working with DWD to update the site, making it easier to navigate, better organized, and more visually appealing. Following the overhaul of the Regional Analysts pages in 2022, the team primarily focused on reconfiguring the format, design, and content of the home page, receiving input from a variety of stakeholders during interactive user testing sessions. Based on popularity, the County Highlights and Workforce Economy Dashboard were placed at the top of the scrolling page. IBRC developers also refined design of the Workforce Economy Dashboard, making it more user friendly and ensuring the weekly/monthly/quarterly trends are front-and-center. Below this are popular tools and topical links to make accessing specific information easier for a variety of users. Utilizing visual displays for these links helped to make the home page more modern in appearance and user-friendly, while keeping the layout of the navigation bar largely unchanged ensured more experienced users can continue to easily find what they need.

Home

Employers Job Seekers

Regions +

Topics -

Tools +

Data Request Portal

What's New?+

#### **County Highlights Quick Stats**

Select a county to view a profile containing population and workforce statistics.



#### WORKFORCE ECONOMY DASHBOARD »

#### 3,284,400

#### Total Non-Farm Jobs (SA)



Indiana saw a monthly increase of 3,100 jobs

#### 526,700

#### Manufacturing Jobs (SA)



Indiana saw a monthly decrease of -400 jobs

#### 0.1%

#### Employment (SA) Monthly **Change**



Indiana saw a monthly increase

#### 3,902

#### Unemployment Insurance Initial <u>Claims</u>



Indiana saw a weekly increase of 217 claimants

#### View all indicators here »

#### 2,859,300

#### Private Sector Jobs (SA)



monthly data remain unchanged for Indiana

#### <u>Unemployment Rate (SA)</u>



Indiana saw a monthly increase of 0.2 points

#### 62.5%

# Labor Force Participation Rate



Indiana saw a monthly increase of 0.10% percent

#### 2.1%

#### Business Establishments (annual percent change)



Indiana saw a quarterly increase

#### **FEATURED TOOLS**



#### Occucoder

Employers can use job titles to classify workers into Standard Occupational Classification (SOC) Code categories.



#### **Business Lookup Tool**

Find businesses by searching geography, employment size and/or industry. Use for career exploration and job search assistance.



#### In Reality

A reality check for anyone who needs to make career path decisions and understand what those careers will pay — for

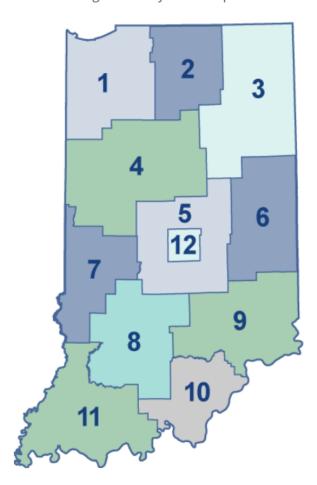


#### Grants and RFI Data Assistant

Access commonly used data for grant applications and requests for information. Helpful for Indiana economic developers.

## **Regional Analysis**

Select an Economic Growth Region to learn more about the region and view the latest regional analysis and reports.



In 2024, the team added a new page in the navigation bar, "Job Seekers," that provides a variety of resources for individuals looking for a job in the state, including resources for veterans entering civilian employment, long-term occupation projections, regional resources, apprenticeships and work-based learning, and more. The corollary to this page, also in the navigation bar, is "Employers," which contains resources for employers, including the Business Lookup Tool, cost of living calculator, business services and links to job boards. In fall 2024, the IBRC developers and the DWD Regional Analysts met again to discuss what kinds of changes should be prioritized for the next year.

# **Job Seekers Resources**

Looking for a job in Indiana and need to know more about the labor market? This page provides access to relevant resources geared to job seekers.

#### KNOW YOUR LABOR MARKET



Regional Labor Market Information Across Indiana

Indiana has multiple workforce regions and we have labor market analysts who can help you understand what the opportunities are where you live.

Go here and select your region now.

## START YOUR JOB SEARCH



Indiana's Workforce Hub: One Stop to Start

A great place to start your path to a new job or a whole new career, One Stop to Start is the place to get connected to career and job navigators who tailor the search package to your needs.

# **Employer Resources**

Looking for talent in Indiana and need to know more about the labor market? This page provides access to relevant resources geared to employers.

#### KNOW THE LABOR MARKET



Business Lookup Tool

Find competitors or suppliers in your region using this  $\underline{\text{look-up tool}}$  for Indiana.

#### FINDING WORKERS



Indiana's Workforce Hub: One Stop to Start

Get connected to talent through the <u>Employer Resource Navigator</u>, so you can support employee growth and achieve business success simultaneously.

#### **Customized Data Requests**

Indiana's team of regional labor market analysts are available to address data and information requests in a timely manner. They provide comprehensive region-specific and locally available data for stakeholders, participate in Regional Workforce Development Board meetings, and supply information and training to members upon request. Our stakeholders do not always know the best places to find the type of data they need, nor do they have the time and resources to pull this. The regional analysts' work allows DWD to maintain data integrity with the local stakeholders while fostering a collaborative environment with local stakeholders and the state.

Indiana LMI staff also offer webinars and trainings to local workforce staff that focuses on effective usage of LMI and its application to career research and guidance. Every other week, a short 30–60-minute training is provided to the regional analysts group. The topic of those trainings is decided upon the need and can range from using new LMI tools or mastering data visualization software for more effective dissemination of labor market information.

Additionally, IBRC provides periodic trainings to the LMI team, and per request can provide training to other teams as well. Regional reports such as monthly labor market reviews, wage and occupation reports, job postings and skills reports, industry employment and wage reports as well as analysis of unemployment insurance claimants (labor supply) reports that are regularly distributed and published on the state's <a href="Hoosiers by the Numbers">Hoosiers by the Numbers</a> (HBTN) website. On the HBTN website, there are Regional Analyst pages that give a profile of each EGR and provide contact information for the assigned analyst as well as access to a large amount of regional data. The regional analysts also produce customized LMI reports with requested data specific to businesses, locales, or industry needs.

Regional analysts are the first responders to local economic developers and regional workforce planning boards. They provide data and analysis in a timely and easily digestible fashion for business, chambers of commerce, and attraction project requests for information. Below are annual totals of regional analysts' recorded activity for PY 2023:

	Customized LMI Requests	Quick Email/Phone Responses	Workforce Development Board Meetings	Presentations	All other (stakeholder meetings, conferences, webinars, job fairs, educational events, etc.)
PY23 Total	1,249	379	50	40	130
PY23 Avg Monthly	104	32	4	4	11

#### **Longitudinal Data System Analysis**

The Education and Workforce Database (EWD) continues to create enhanced opportunities to combine workforce and education data (K-12 and higher education) to examine employment outcomes, retention of graduates, differential outcomes based on degree type, area of study and other research to better understand the linkages between education and the workforce. This longitudinal data set is combined to answer key questions about the education and workforce pipeline. It allows stakeholders such as education professionals, employers, policymakers, students, community leaders, and the public to use data and information previously not available. Department of Workforce Development (DWD), Commission on Higher Education (CHE) and Department of Education (DOE) continue to contribute data into the database, with DWD providing unemployment claims, wage records, case management records, and adult education data.

DWD continues to contribute data to a data hub which was created by the Management Performance Hub (MPH) for users to access pre-defined data sets. Data from DWD are also available in dashboard format on DWD's website and our Research and Analysis website, Hoosiers by the Numbers. These datasets include Occupational Employment and Wage Estimates (OEWS), Occupational Projections, Weekly Unemployment Claims, and funded Eligible Training Programs. Data sets for MPH data hub have been contributed by other agencies and partners such as IBRC, Indiana Department of Homeland Security, CHE, the Indiana Department of Transportation, and several other agencies. EWD continued to work on additional pre-determined data sets which are available for download through the website, which empower researchers to conduct in depth analysis as well as guide decision making for policy leaders. Under MPH, the EWD system as well as the groups guiding the research are well funded to continue this important work and answer questions which, without the collaboration of these agencies and the state, would remain unanswered.

In conjunction with MPH and the Office of Chief Equity, Inclusion, and Opportunity Officer, DWD continues to contribute unemployment claimant data to an Equity Portal as part of an effort to keep the state accountable for ensuring all Indiana residents are served equitably. Data included in this portal are health, public safety, social services, education, and workforce data. The portal is located at https://www.in.gov/equity/data-portal/.

The Enhanced Research Environment (ERE) launched by MPH is a secure, cloud-based virtual environment for internal and external research partners to perform analysis on Indiana data directly within an environment monitored and maintained by the state. This allows end user access to approved data without the data ever being transferred or maintained by the end user. The end user cannot take anything out of the environment and needs to go through an export process to get data and analyses out of the environment. Several open-source tools for analysis are available within the environment, such as Python and R.

DWD and MPH has partnered with a consulting firm, Resultant, on the Workforce Recovery Engine (WRE) (now named PIVOT). The purpose of this project is to build an analysis engine driven by longitudinal data to provide citizens with information and direction to achieve workforce outcomes through individualized recommendations for training and career paths. The overarching goal is to utilize big data and artificial intelligence technologies to provide an individualized, automated career-counseling tool based on real-time and real-world data. The model created in 2023 is in the process of getting retrained. The data provided for this project includes:

- Employment and wage data
- Unemployment insurance data
- Education, training, and certification data
- Demographic data
- Job market data

Tool	Type	Programming Language	IDE/GUI	Links
Python	OOP <sup>2</sup>	Python	Jupyterlab	https://nbviewer.jupyter.org/
	FPL <sup>3</sup>	R	RStudio	https://www.rstudio.com/
R	FPL	R	Jupyterlab - R kernel	https://github.com/IRkernel/I rkernel
Julia	ООР	Julia	Jupyterlab - Julia kernel	https://github.com/JuliaLang/ Julia.jl
Scala	MPP <sup>4</sup>	Scala	Jupyterlab - Scala kernel	https://github.com/almond- sh/almond
Coorle	MPP	Python	Jupyterlab	https://spark.apache.org/docs /latest/api/python/index.html
Spark	MPP	R	Jupyterlab - R kernel	https://github.com/jupyter- incubator/sparkmagic
Octave	FPL	Octave	Jupyterlab - Octave kernel	https://github.com/Calysto/o ctave_kernel
C++	ООР	С	Jupyterlab - Xeus kernel	https://github.com/QuantStac k/xeus
Leaflet	GIS <sup>5</sup>	Javascript	Jupyterlab – leaflet extension	https://github.com/jupyter- widgets/ipyleaflet
H2O Sparkling Water	ML <sup>6</sup>	Python	Jupyterlab	https://www.h2o.ai/products /h2o-sparkling-water/
PSPP	SaaS	N/A	PSPP Desktop	https://www.gnu.org/softwar e/pspp/
Neo4J	GDMS <sup>7</sup>	R, Python	Neo4J Desktop	https://neo4j.com/

#### Leveraging a Partnership

The continued long-term partnership between DWD and IBRC leverages the best people and resources of both state entities on behalf of Indiana residents and businesses. The development of software/applications for the digital sharing of data, the statistical modeling of large volumes of LMI data to produce new insights, and leveraging university tools to improve productivity in the analysis of LMI are all part of this partnership. DWD and IBRC continue to focus on offering more localized and regional workforce data to the benefit of local decision makers. Additionally, this partnership offers leadership and technical expertise towards the development and expansion of the workforce warehouse system, for improved performance evaluation of workforce training programs under WIOA, and for implementation of the DWD decisionmakers' research agenda through specialized analyses. This work also involves producing dashboard analyses and continued evaluation and research on workforce training, unemployment trends, and the labor force participation rate. The partnership ensures the continual development and upkeep of Indiana's LMI website Hoosiers by the Numbers, which includes many virtual tools with information for community leaders and individuals. The IBRC also assists by hosting, developing, and maintaining the Workforce Information Database (WID) as mandated by the Workforce Information Grant.

#### Workforce Economy Dashboard

The <u>Workforce Economy Dashboard</u>, developed in 2016 and enhanced in 2023 with a more user-friendly layout and modern design, continues to serve the needs of consumers with direct access to information in an easily digestible format. The Dashboard displays the most recent state data from a high-level economic perspective. Information in this dashboard includes:

- Total Nonfarm Jobs (Seasonally Adjusted);
- Private Sector Jobs (Seasonally Adjusted);

- Manufacturing Jobs (Seasonally Adjusted);
- Unemployment Rate (Seasonally Adjusted);
- Employment Monthly Change (Seasonally Adjusted);
- Labor Force Participation Rate (Seasonally Adjusted);
- Unemployment Insurance Initial Claims;
- Exports (millions of dollars);
- Residential Building Permits;
- Business Establishments (annual change);
- Business Establishments (annual percent change);
- Job Postings (Seasonally Adjusted); and
- New Job Postings (Seasonally Adjusted).

#### WORKFORCE ECONOMY DASHBOARD »

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#### Employment (SA) Monthly Change



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#### 2,859,300

#### Private Sector Jobs (SA)



monthly data remain unchanged for Indiana

#### 4.0

#### Unemployment Rate (SA)



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## <u>Labor Force Participation Rate</u>



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# <u>Business Establishments (annual percent change)</u>



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View all indicators here »

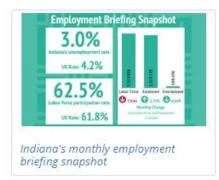
#### **INfographics**

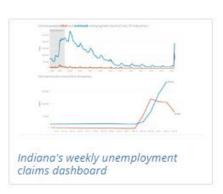
The <u>INfographics</u> section on Hoosiers by the Numbers provides Tableau visualizations produced by the Department of Workforce Development's Research and Analysis division as well as IBRC analysts. Tableau allows for the illustration of data and enables the user to manipulate the data within the visualization for a more customizable experience. There are currently 19 robust visualizations with varied research topics available and the team continues to explore new and innovative topics that will be presented in the future.

DWD continued leading the production of per-request infographics for a range of partners in the education and workforce community. Tableau visualizations have been produced for universities, economic development, nonprofits, as well as legislative staff and other interested parties.

#### **Employment and Unemployment**

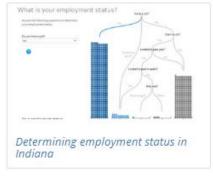










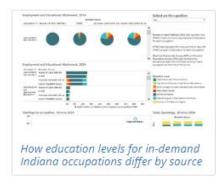




#### Education







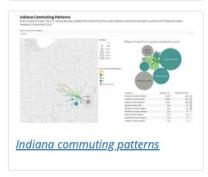
#### **Demographics**











#### Occupations









#### **BLS Longitudinal Database (Indiana Detail)**

Using quarterly files of longitudinally linked records for Indiana employers provided by the Bureau of Labor Statistics, employer records from 1990 through 2024 allow business entities to be tracked through the maze of account changes and partial transfers to identify actual business births and deaths, expansions, and contractions. Organic employment growth can be distinguished from growth by acquisition or merger, facilitating research on employment dynamics by size class and industry. The LDB files have been used for requests within and outside the agency and have informed several economic development projects handled by our research partner. Longitudinal files have been created using SAS. Primarily, the files are being used for research.

#### The Workforce Warehouse (Research and Analysis Data Warehouse)

The Research and Analysis Data Warehouse (RADW; formerly known as the Indiana Workforce Intelligence System - IWIS) was developed as the state's longitudinal data system in 2007 as a joint project of the Department of Workforce Development (DWD), Indiana Business Research Center of Indiana University (IBRC), Indiana Commission on Higher Education (CHE) and the Indiana Department of Education (IDOE). Except for Career and Technical Education data, the database currently does not have other IDOE data, but the system has continued to serve both as DWD's data warehouse as a means of connecting higher education and workforce records for return-on-investment reporting and to deepen understanding of the education-to-workforce continuum. In 2014 the decision was made to request proposals to conduct an analysis of the current system and its capabilities to design a production-level system to augment or replace it

as the state's student (P-20W) longitudinal database. IWIS was renamed the Indiana Network of Knowledge (INK) by legislative action and a broader governance committee (including the Commissioners of DWD, CHE, and DOE) headed by the Governor was established. As of July 1, 2017, INK underwent yet another change and was renamed the Education and Workforce Data (EWD) warehouse, now housed under the Management and Performance Hub (MPH), reporting to the governor's office. To sustain continuity of available data, DWD continues to maintain its workforce warehouse (RADW) of existing data series and seeks to expand and enhance it with data series useful for labor market and training research, in collaboration with, and potentially outside the scope of MPH.

During the 2024 program year, the Indiana Department of Workforce Development continued the enhancements of the workforce data in the RADW longitudinal warehouse. Indiana started collecting occupation data from employers in Q1 2019 and that data is now available in RADW, along with full/part time job status designation. We continue to see the increase in the numbers of employees with a SOC code each quarter. Improvements are continually being made in the data quality of the occupational fields. A study with the Bureau of Labor Statistics was conducted to analyze the data quality of the occupational data received in the wage records.

Many data requests continue to be fulfilled through the Research and Analysis Warehouse, using data from BLS programs, unemployment claims, Indiana Career Connect, and the case management systems, as well as reports combining wage data and higher education data. The data stored in RADW has been used in different studies ranging from post-graduation employment and wage outcomes, effects and impacts of the COVID-19 pandemic, economic and health status of the population, etc. An outreach program, PIVOT, was developed in 2023 in conjunction with the governor's office and MPH, along with the consulting group, Resultant. Datasets have been maintained into 2024, with the model in the process of being retrained to improve upon job recommendations for Indiana unemployment claimants. These programs reach out to the unemployed who have filed for unemployment benefits to offer further services upon qualification. Additionally, RADW was used to compile reports for CHE pertaining to employment and wage outcomes for graduates from our higher education public institutions in Indiana.

In the past, we have provided data to inform improving of Veteran services, apprenticeship programs at a community college, and KPIs for the governor's office. Staff is in constant communication with MPH, who displays the final KPIs created by DWD and is available for data alterations and verification as required. Additionally, the RADW staff has continued to develop skills in data visualization tools such as Tableau and open-source coding languages (Python and R). Dashboards are in progress to provide further information to stakeholders as available. The RADW continues to operate in a secure environment called the "protected zone", a semi-virtual machine environment with SQL Server installed.

Two new datasets have been added to RADW in 2024. The first is a flag that can be attached to wage records to indicate if an employee is a Veteran. This will be very important for research regarding the Veteran population as well as potential outreach and services to this group. The second dataset is from

the Department of Revenue, obtaining wage and other information on sole proprietors who do not report to DWD, wage information on retirees, and business closures. This set will allow us to answer research questions on populations not included in the statewide wage records. We are in the process of drafting a data sharing agreement with the Bureau of Labor Statistics to obtain drivers' license data to study residency and commuting patterns within the state of Indiana.

Questions related to demand alignment and current pipeline of workers has been explored with data provided from RADW and in partnership with EWD. Work with partner agencies as well as outside research entities continues to persist and is widely well received by members of the business and academic community. We continue to explore obtaining access to data from states outside of Indiana through the Coleridge Initiative, a not-for-profit organization, originally established at New York University. This initiative is working with our counterparts to ensure that data are more effectively used for public decision-making. This goal is created in order to create value for the taxpayer from the careful use of data, by building new technologies to enable secure access to and sharing of confidential microdata, and by training agency staff to acquire modern data skills (https://www.coleridgeinitiative.org/).

#### **Workforce Information Core Product Deliverables – Accomplishments**

#### 1. Continue to Populate the Workforce Information Database (WID) with state and local data

The Indiana Department of Workforce Development continued to maintain and expand the Workforce Information Database (WID) with state and local data that covers at least the most recent ten-year period, as well as include any federally applicable changes mandated. The Workforce Information Database serves as a primary source for Indiana's LMI website (www.hoosierdata.in.gov) and is supplemented by the STATS Indiana databases, which have been built and maintained by DWD's university partner, IBRC, for more than 30 years. Today, both the WID and STATS databases power Hoosiers by the Numbers and STATS Indiana through the IBRC partnership. The data includes estimates and projections for the state, counties, metropolitan statistical areas, economic growth regions, as well as small area data for census tracts, zip codes, and radii. The STATS databases also include data for other states and counties, which powers our tools for those needing bordering county/state data and to compare the state, regions, counties and cities with other areas across the country.

In the Program Year 2024, the website platforms supported by DWD tallied nearly half a million unique users. Looking at the numbers daily, this would approximate to over 1,300 unique users every day. More than 1.4 million pages of content were viewed during that period.

The primary website for Labor Market Information is *Hoosiers by the Numbers*, which serves over 100 thousand users and provides a variety of data outputs targeting employers, job seekers, workforce professionals, economic developers, schools, nonprofits and more. The site has custom built tools resulting from direct user feedback, such as dashboards, profiles, radius tools, Tableau visualizations, and special products for government officials and more. IBRC also built and maintains <a href="IN Reality">IN Reality</a>, a customized tool used by Indiana high schools and educators throughout the state to help make that important link between the anticipated cost of lifestyle needs and

desires after school and the occupations that could support them. IN Reality steps them through cost scenarios specific to Indiana regions including housing, transportation, communications, college, and more.

STATS Indiana, a sister-site to Hoosiers by the Numbers, provides a broader socio-economic catalog of data, while <a href="INContext">INContext</a>, the joint publication of DWD and IBRC, focuses on the Indiana workforce and economy and is published on the web every other month. The following are snapshots from Google AnalyticsG4, the tool used for tracking usage:

PY2024	HBTN	IN Context Newsletter	STATS Indiana	Combined LMI Platform
Active sessions	181,200	89,000	263,794	533,994
Active users	122,000	68,930	193,000	261,930
Event triggers	1.6M	342,525	1.5M	1.8M
Page views	605,316	89,708	464,329	1.2M
Session duration (avg)	2:56	3:30	2:43	3.17
New active users	112,000	82,000	189,172	383,172
Mobile	26,000	30,000	76,000	132,000
Desktop	86,000	38,000	113,000	237,000

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With its more specific focus, Hoosiers by the Numbers has a lower number of sessions than STATS Indiana, but a higher average of pages viewed by a user per session (3 pages vs. 2 pages). The Business Lookup Tool, County Highlights, HBTN homepage, and occupation coding tool were among the most popular destinations for the site in PY24. The analytics tool used for site usage has been changed by Google, so prior year comparisons are not comparable. The new measures home in on active use and events (downloading, printing, selections from the interactive pages, etc.). Event triggers on HBTN were clocked at 1.6 million, indicating the use within the hundreds of interactive pages on the site is significant.

Examples of new publications include the following released in PY 2024:

Jul/Aug	1. A new renaissance in U.S. manufacturing: Will Indiana miss it?
2023	2. Indiana voter turnout: A harbinger of things to come in 2024?
Sept/Oct	3. COVID influences the labor force
2023	4. <u>Labor market balancing act</u>
Nov/Dec	5. The 2023 metro landscape for Indiana
2023	6. Do you know your labor analyst? If not, you should!
Jan/Feb	7. Digging into Indiana's jobs reports over the last five years
2024	8. Economic projections for Indiana's metro areas in 2024
Mar/Apr	9. Building opportunity: Diversifying construction workforce to bridge labor gaps
2024	10. Exporting the intangible: Indiana's global trade isn't just products
May/Jun	11. Hoosiers on the move: An update 10 years later
2024	12. Know your labor market, start your job search: Resources for Job Seekers

Responsive design is utilized for the site, and it has continued to be successful. The core of the website is a UX (user experience) based design geared to people looking for their county or region or a specific piece of data on a workforce related topic. The site is powered by more than 42 billion records in the joint databases of the IBRC and DWD and serves as the leading informational site for business developers, researchers, and the public alike. In PY 24 and PY 25, more efforts will continue to be focused on the user experience through the DWD collaboration with the Indiana Business Research Center.

While the business lookup tool and the employer-driven Occupation Coder are still the biggest draw, the new <u>Population</u> and <u>Labor Force Projections to 2050</u> have clocked significant use since the rollout began in May, garnering attention from policy makers throughout the state due to Indiana's drop in birth rates, rise in mortality rates (especially among prime working age) and the continuing pressure on the Indiana labor market.

#### **Maintenance of Databases and Outputs**

- During this grant period, required data loaded to the Workforce Information Database
  was generated and reviewed on a weekly, quarterly, or annually frequency— depending
  on the data series by in-house information technology support staff. IBRC staff reviewed
  and loaded additional data series from BLS for all states, such as monthly estimates from
  Current Employment Statistics and Local Area Unemployment Statistics, as well
  implementing a new taxonomy (based on user requests) and creating new indicators for
  the Workforce-Economy Dashboard that appears prominently on the HBTN homepage.
- IBRC, in collaboration with DWD, maintains a legislative region tool to allow legislatures to view their legislative regions.
- Two separate systems are maintained TEST/QC and PUBLIC. All data are verified and tested prior to public display; CES and LAUS data are embargoed until the DWD Press Secretary issues the monthly press and data release at a specified time, which then triggers release of these closely watch Indiana employment and industry monthly estimates.

#### 2. Produce and disseminate industry and occupational employment projections

The Indiana Department of Workforce Development generated and delivered to ETA the Statewide and Regional Short-Term Industry Projections (2023-2025), as well as Statewide and Regional Long-Term Industry Projections (2022-2032).

#### Special Studies/Projects

The IBRC has conducted and published relevant economic analyses, special workforce information, and/or economic studies of benefit to the governor and state and local Workforce Development Boards (WDBs). IBRC leadership also now conducts quarterly "deep dives" into specific aspects of Indiana's workforce, including availability of affordable housing and opportunities to increase labor productivity.

Indiana's Annual Economic Analysis Report for the previous program year has been written to serve as an important source of economic information for the governor, the Governor's Workforce Cabinet (GWC), local WDBs, colleges, economic development organizations, and other workforce development interest groups. The report includes the following:

#### **Section A: Economic Analysis**

# A1: Annual Employment and Wages (2023) 2022 Annual Industry Overview

Annual Employment and Wages
Industries showing the highest employment increases from 2019 to 2023
Industries showing decline from 2019 to 2023.

#### Wages (2022)

Average annual wage growth across Indiana statewide

Average annual wage growth by Industry

A2: Analysis - INDemand Jobs

Methodology Five Flame INDemand Jobs Indiana College and the question of brain drain

#### Section B: Workforce Analysis

**B1: Labor Force** 

**Estimates Unemployment Rates** 

**B2: Workforce and Industry Composition** 

Age Distribution of the Workforce Indiana Total Population by Race

B3: Education B4: Housing

**Homeownership Rates Housing Permits** 

A copy of the report will be submitted and posted on the *Hoosiers by the Numbers* website no later than October 2024.

#### 3. Post Products, information, and reports on the Internet

DWD continued to maintain and enhance its labor market information website, *Hoosiers by the Numbers*. Electronically available labor market data and publications presented in various formats (i.e., Excel, PDF, Tableau, etc.) facilitate export of the information from the website for customers' use. IBRC hosts, maintains, and enhances the website by populating some of the non-core datasets and providing links to other data series of interest maintained on their STATS Indiana website. In addition, data from *Hoosiers by the Numbers* is pushed by IBRC to a variety of local websites. Highlights mentioned throughout this annual report are summarized below:

#### **Website Enhancements/Activities**

Maintaining the databases that drive *Hoosiers by the Numbers*, which involves multiple staff at both agencies entails daily updates, transformations, research into series or format changes, revisions, benchmarks and weekly review of all links and outputs to ensure availability.

IBRC and DWD continue to make it easier to navigate the *Hoosiers by the Numbers* website through updates for a better organized and more visually appealing interface. The IBRC began by engaging stakeholders through focus groups and interviews to gather feedback about the current website to identify and prioritize the updates. The first updates included adding Regional Analyst pages which provide a tailored overview of each of the EGRs in the state. The intention was to highlight the analyst in each EGR to offer a local contact/face for more LMI information and regional data—including the region's demographics, economy, major industries, occupations and employers, and links to regional resources. The next round of updates was focused on improving the home page to highlight the most popular tools and data, including County Highlights, the Workforce Economy Dashboard, the Occucoder, INfographics, and the Business Lookup Tool. The home page has a cleaner appearance, newly

designed icons, and is more tailored to users' needs. In fall 2023, the IBRC developers met with the DWD Regional Analysts in Indianapolis to discuss additional refinements that should be made to the site based on feedback the Regional Analysts have received from customers. Two new site components were added in the spring of 2024 that highlight key resources available to Employers and Job Seekers.



# 4. Partner and consult on a continuing basis with workforce development boards and key economic development partners and stakeholders.

Regional Analysts worked closely within their assigned Economic Growth Regions, pro-actively providing current labor market information and educational LMI presentations. The analysts routinely attended regional Workforce Development Board (WDB) meetings and serve as consultants for various community committees. DWD currently has over 23,000 local stakeholders that receive regional LMI reports monthly, quarterly, and annually.

#### **Outreach Activities by Regional Analysts during Program Year 2023**

	Annual Total	Monthly Average
Customized LMI Requests	1,249	104
Quick Email/Phone Responses	379	32
Workforce Development Board Meetings	50	4
Presentations	40	4
Other (Meetings, conferences, webinars, job fairs, educational events, etc.)	130	11
Total	1,848	154

Central office team members continued to work closely with the Indiana Economic Development Corporation (IEDC), providing materials geared towards business attraction efforts, analyses of the economic impact of specific industries, identification of expending industry subsectors to serve as a focus for future attraction efforts, etc. DWD has supplied data visualization and inperson support to IEDC on new business attraction projects. Additionally, DWD staff utilized

proprietary software to generate industry and workforce reports to meet customer demands. IBRC staff provide weekly extracts from the IBIS World database to the Indiana Small Business Development Center, a federal-state cooperative with the Small Business Administration and the State of Indiana. These market-specific reports are used to assist entrepreneurs throughout Indiana.

IBRC staff provide quarterly and annual exports data to IEDC and other State and trade groups to enhance their understanding of the impacts of both exporting on jobs as well as foreign direct investment. IBRC is also working with DWD, the GWC, and IEDC to develop a model to forecast job growth from business attraction and expansion projects. These forecasts are intended to help the State better understand and plan for the impacts of private capital investment on regional labor markets.

Lightcast (merger of Economic Modeling Specialists International (EMSI) / Strategic Advantage API and Burning Glass API)— A labor market information software application with data and analysis components that provide in-depth, local employment data and analysis to R&A staff to be shared with stakeholders needing to make clear, data-driven decisions. Regional Analysts use this tool to make customized reports that profile a given region's employment, unemployment, industry mix, projected growth and demographics. The API is used to automate updates within Tableau visualizations within Indiana Career Ready. The tool also provides job-posting statistics as well as record-level occupation and industry classification data from the postings. Information from this source will provide monthly insights into the current job-posting activity by occupation and industry for the DWD Commissioner and Lead Team. Various teams within DWD will use this data to develop reports to highlight the top jobs and skills in demand for local areas based on the employer data from this site. In addition, DWD analysts use Lightcast to power data visualization tools within Indiana Career Ready and within standalone visualizations.

#### **Other Customer Consultations**

DWD uses several SharePoint sites to coordinate information dissemination and increase collaboration while reducing effort redundancy. These sites were developed to facilitate distribution of frequently requested data, such as an applicant count by occupation from the Indiana Career Connect (the agency's job-matching system) applicant pool, wage demand by occupation and county, and occupational employment estimates (incumbent employment) by county. In addition, DWD established and continues to use a SharePoint for the Regional Analysts to facilitate the collaborative exchange of information concerning their work in their assigned regions and for discussion to further progress and development data and procedures. This is all to ensure client satisfaction and effective data management and distribution. To interface with the customers, DWD also uses Tableau to visualize large quantities of data, as well as GovDelivery as a report distribution system.