

WISCONSIN



DWD

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# Labor Market Information Programs

Bob Pope

Labor Market Information Section Chief

Ideas Forum

October 18, 2023

# Understanding & Using Labor Market Information

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- Who we are and what we do
  - Overview, program specifics
- How to find and use our data
  - WisConomy.com is Your Source for Wisconsin Economic and Labor Market Information



# Bureau of Workforce Information and Technical Support

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- Labor Market Information (LMI)
  - Bureau of Labor Statistics (BLS) programs
    - Quarterly Census of Employment & Wages (QCEW)
    - Occupational Employment & Wage Statistics (OEWS)
    - Current Employment Statistics (CES)
    - Local Area Unemployment Statistics (LAUS)



# Bureau of Workforce Information and Technical Support

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- Office of Economic Advisors (OEA)
  - Regional Economists
- Research
  - Projections, Workforce Information Database (WID), Website (WisConomy)





# Quarterly Census of Employment & Wages (QCEW)

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**Sarah Hoffman** | QCEW Supervisor

Ideas Forum

October 18, 2023

# QCEW Team

- Sarah Hoffman (Supervisor)
- Richard Krause
- Sheila Ulrich
- Joanna Frasch
- Kate Arista
- Warren Enstrom
- Sharayah Preman





# What is QCEW?

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- The Bureau of Labor Statistics (BLS) program that produces quarterly job statistics based on Unemployment Insurance (UI) coverage.
- Gold Standard for employment and wages.
- Detail of businesses by industry, geography, and ownership.
- ~160,000 Wisconsin firms.
- ~200,000 establishments.
- More than 95% of civilian labor force.
- Data feeds a myriad of programs.



# What is the QCEW ownership?

Private

- Government
  - Federal
  - State
  - Local

Aggregate of all  
Government

Aggregate  
of all types







# Multiple Worksite Report (MWR)

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- Supplemental to the UI Quarterly Tax Report
- Requests employment and wages by physical location to more accurately reflect county and industry employment and wages when businesses have more than one location in the state
- <https://www.bls.gov/respondents/mwr/>
  - <https://www.bls.gov/respondents/mwr/forms/mwr-wi.pdf>





# Annual Refiling Survey (ARS)

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- Approximately 1/3 of businesses are surveyed annually
- The purpose is to make sure that QCEW has accurate location and industry codes assigned as well as contact information
  - <https://www.bls.gov/respondents/ars/home.htm>
  - <https://www.bls.gov/respondents/ars/forms/nvs-wi.pdf>





# Industry Classification System Used by QCEW

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- North American Industry Classification System (NAICS)
- [https://data.bls.gov/cew/apps/bls\\_naics/v3/bls\\_naics\\_app.htm](https://data.bls.gov/cew/apps/bls_naics/v3/bls_naics_app.htm)
- Revised every 5 years to keep the classification system current with changes in economic activities.
- WI staff assign NAICS codes to all businesses subject to UI.





# Outliers

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- A big part of QCEW is outlier research and resolution.
- Accounts with significant changes to employment and/or wages flag in our system.
- It is our job to answer the question of WHY a significant change occurred.
- The BLS Longitudinal Database follows QCEW establishments and creates reports of business births, deaths, etc.



## How can QCEW data be Used?

Identify new and emerging industries.

Economic and industry health indicator.

Establishment and job dynamics – churn.

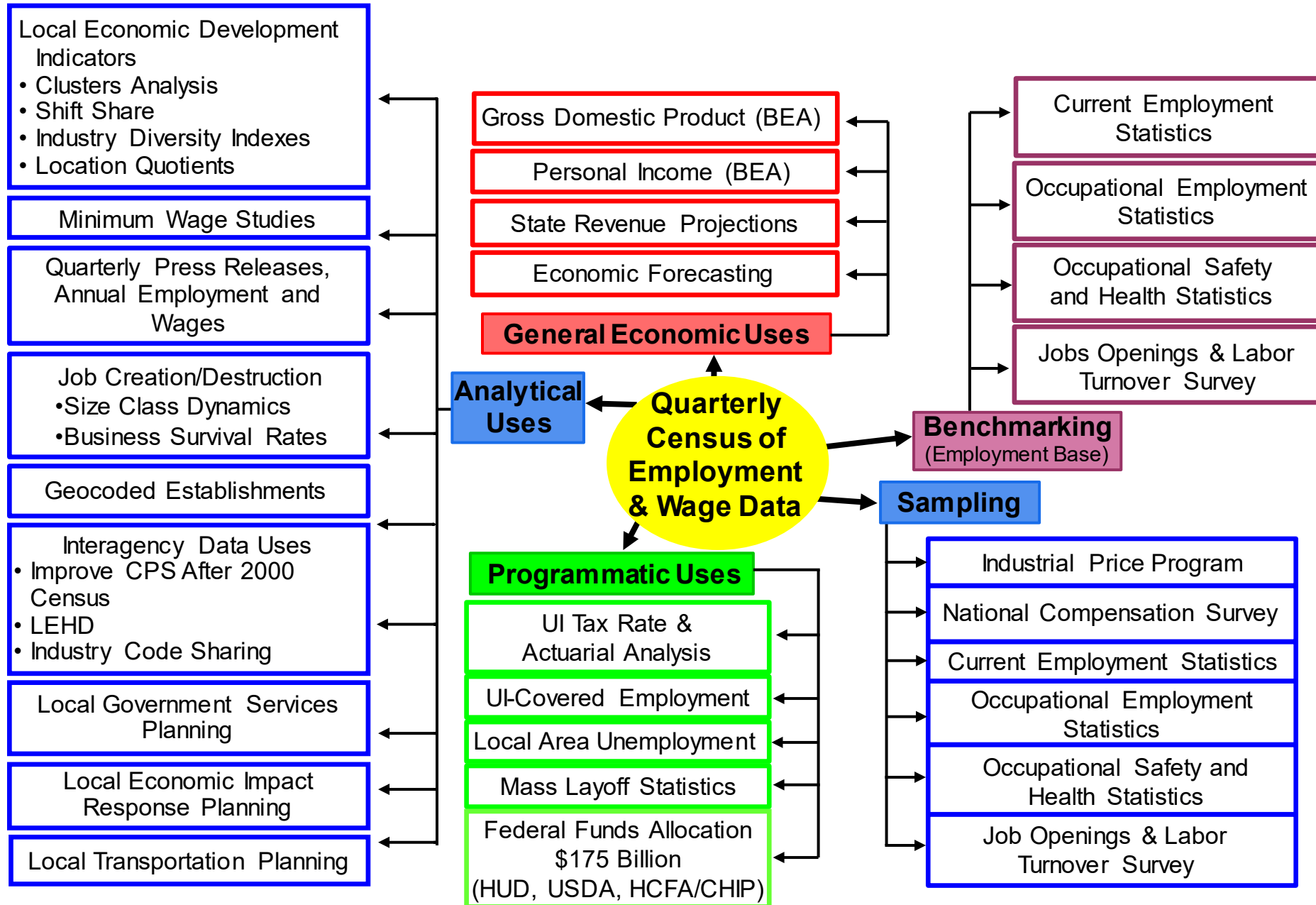
Economic and workforce forecasting.

Worker training programs and curriculum development.

Strategic planning.

Policy impacts.

# Uses Of Quarterly Census of Employment and Wages Data





# Thank You!

## Questions?

### Sarah Hoffman

[Sarah.Hoffman@dwd.wisconsin.gov](mailto:Sarah.Hoffman@dwd.wisconsin.gov)

608-733-3882

[www.jobcenterofwisconsin.com/wisconomy/pub/qcew](http://www.jobcenterofwisconsin.com/wisconomy/pub/qcew)



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# Occupational Employment and Wage Statistics Program Overview

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Sal Serio

Senior Research Analyst

Labor Market Information

Ideas Forum

October 18, 2023



# Who We Are

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- The **Occupational Employment and Wage Statistics (OEWS)** program is contracted through the Bureau of Labor Statistics (BLS)
- It is one of Wisconsin DWD's Labor Market Information (LMI) programs
- OEWS produces employment and wage estimates for approximately 800 occupations annually
- Find Wisconsin's OEWS publication on [WisConomy.com](http://WisConomy.com)



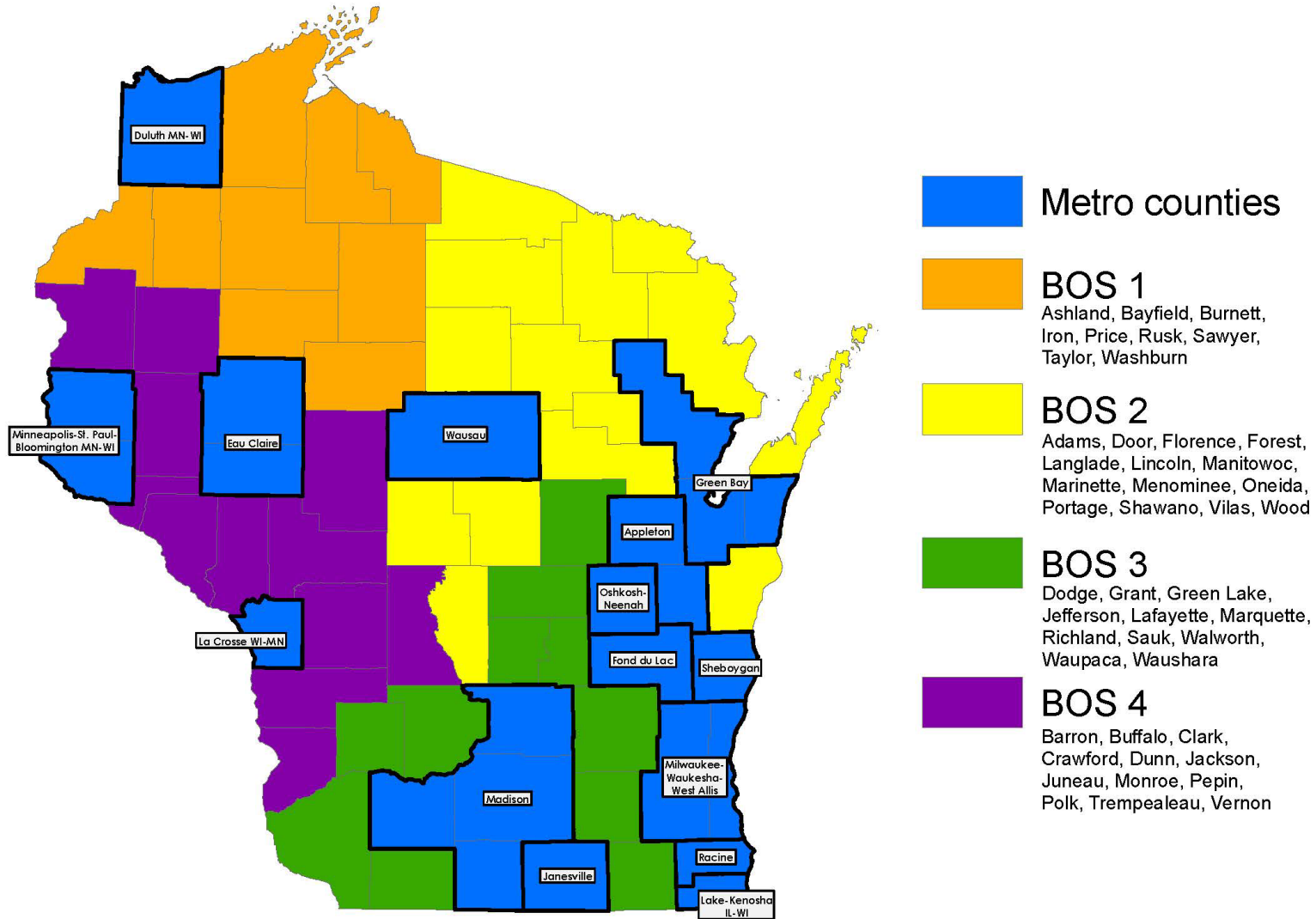
# OEWS Statistical Sample

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- Twice a year: May and November
- Employer sample based on industry, size, and geographical location
- Voluntary survey in Wisconsin
- Each panel samples approximately 5,000 employers and 285,000 employees
- OEWS collects staffing patterns, job titles, wages and employment counts



# Wisconsin's Statistical Areas - OEWS



# Standard Occupational Classification

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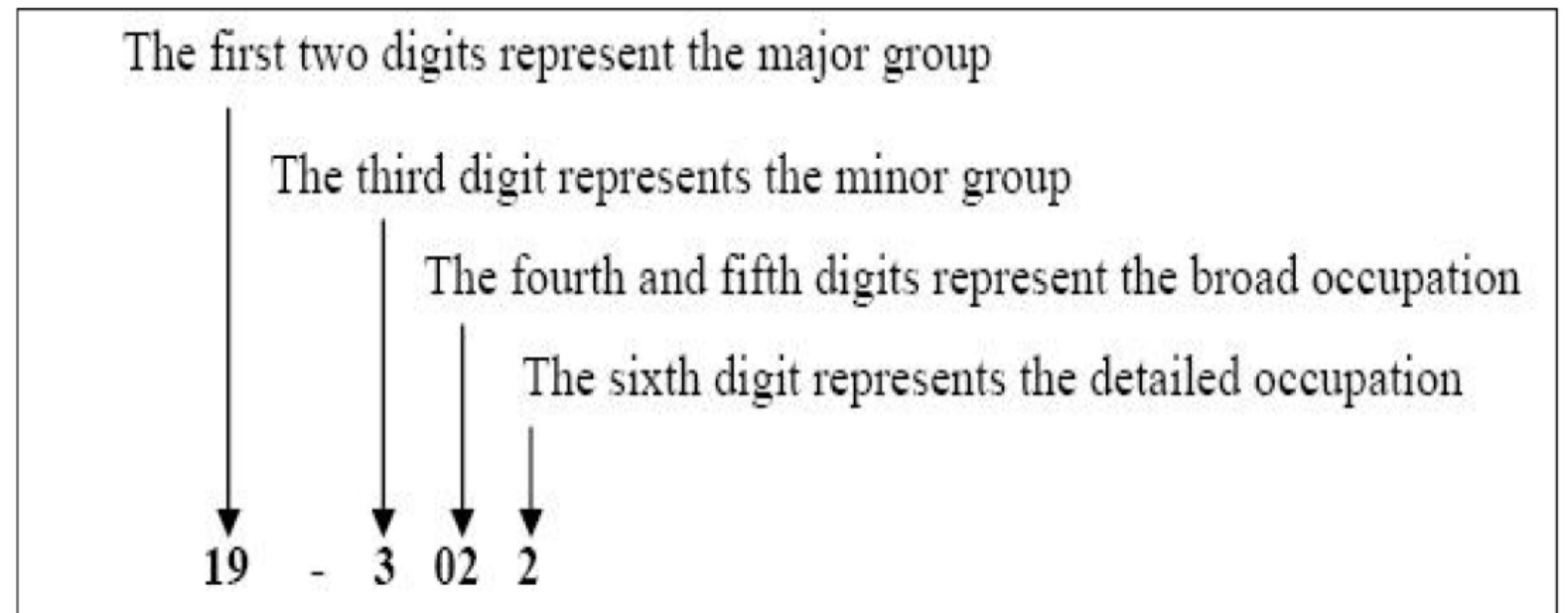
- The **2018 Standard Occupational Classification (SOC) system** is a federal statistical standard to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data
- All workers are classified into one of **867** detailed occupations according to their occupational definition
- To facilitate classification, detailed occupations are combined to form **459** broad occupations, **98** minor groups, and **23** major groups
- A newly updated SOC system is scheduled for **2028**



# SOC – Major, Minor, Broad, and Detailed

Each item in the SOC is designated by a 6-digit code. The hyphen between the second and third digit is used only for clarity.

**Figure 1.**



# Who uses the OEWS data?

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- Job orders and job seekers
- Judges and program administrators such as:
  - a. Division of Unemployment Insurance
  - b. Division of Vocational Rehabilitation, including counselors
  - c. Division of Worker's Compensation and system partners
- Elected and appointed officials
- Educators
- Businesses
- Economists and Economic Developers



# Voluntary vs Mandatory Reporting

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Each state determines whether it has statutes in place that would make the OEWS request mandatory.

Mandatory states and areas:

Colorado	Connecticut	Washington DC	Georgia
Hawaii	Mississippi	Montana	Nevada
New Hampshire	New Jersey	New Mexico	New York
North Carolina	Oklahoma	Oregon	Rhode Island
South Carolina	Utah	Vermont	Wyoming



# Point Data vs Wage Range

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## Occupation & Wage Data Network (OWDN)

- Point Data = actual wage as opposed to wage range
- Easier for employer to report
- Wage accuracy (creates more reliable estimates)
- More clear evidence when wages were reported incorrectly
- Minimum wage QA check recently added to OWDN





# OEWS Estimates & Publication

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- BLS combines 3 years of sample data to generate the OEWS estimates
- The larger sample results in smaller standard errors
- Data collection for the May and November panels respectively ends December 30th and June 30th
- BLS only publishes the May panel, and Wisconsin estimates are usually ready for publication by June



# WisConomy.com > Programs

The screenshot shows the WisConomy.com website interface. At the top, there is a navigation bar with links for Home, Employers, Job Seekers, and Featured Industries. A 'Login' button and a 'Create a Logon' link are also present. The main content area features a large banner with the text 'Welcome to WisConomy! Your Source for Economic and Labor Market Information' and a 'Hot Jobs >' button. To the right of the banner is a 'Quick Links' section with buttons for 'What's New', 'Data Tools', 'Dashboards', 'MyLMI Tool', and 'Contact Us'. Below the banner are three columns: 'Data Tools' with an 'Access Data >' button, 'Programs' with a 'Visit Programs >' button, and 'Economists' with a 'Contact Economists >' button. A large red arrow points down to the 'Programs' section. The browser's address bar shows the URL 'https://jobcenterofwisconsin.com/WisConomy/'.



# Choose OEWS from menu

The screenshot shows a web browser window displaying the WisEconomy website. The URL is <https://www.jobcenterofwisconsin.com/wisconomy/pub/programs>. The page features a navigation menu with 'Home', 'Employers', 'Job Seekers', and 'Featured Industries'. A 'Programs' section is highlighted, containing a sub-menu with 'WisEconomy Home', 'Programs', 'Economist', 'Data Tools', 'Dashboards', 'What's New', 'Contact Us', and 'Help'. The 'Programs' sub-menu is expanded, showing a list of programs with expandable plus signs:

- Current Employment Statistics (CES) +
- Local Area Unemployment Statistics (LAUS) +
- Quarterly Census of Employment & Wages (QCEW) +
- Occupational Employment & Wage Statistics (OEWS) +**
- Occupation and Industry Projections +
- County Profiles in Wisconsin +
- Affirmative Action +

A red arrow points to the 'Occupational Employment & Wage Statistics (OEWS)' option. Below the list, there is a section for the 'Bureau of Workforce Information & Technical Support (WITS)' with a 'Purpose:' heading and a paragraph of text. The text describes the WITS mission and lists the four program areas: Quarterly Census of Employment and Wages (QCEW), Current Employment Statistics (CES), Local Area Unemployment Statistics (LAUS), and Occupational Employment and Wage Statistics (OEWS).



# Scroll for Downloads & Data Search

The screenshot shows a web browser window with the URL <https://www.jobcenterofwisconsin.com/wisconomy/pub/oes>. The page content includes:

- Text about insurance (UI) file stratification: "Insurance (UI) file. Prior to selecting a randomized sample, BLS stratifies the firms in these files by geography, employment size, and industry. In Wisconsin, establishments are stratified by Workforce Development Areas (WDA), fifteen Metropolitan Statistical Areas (MSA), and State (BOS) areas. More detailed information on the complete stratification process can be found on the Bureau of Labor Statistics (BLS) website."
- Text about OEWS survey methodology: "Although the OEWS survey methodology is designed to create detailed cross-sectional employment and wage estimates for the U.S., States, metropolitan and nonmetropolitan areas, across industry and by industry, it is less useful for comparisons of two or more points in time. Challenges in using OEWS data as a time series include changes in the occupational, industrial, and geographical classification systems, changes in the way data are collected, changes in the survey reference period, and changes in mean wage estimation methodology, as well as permanent features of the methodology. More frequently asked questions about OEWS can be found on the Bureau of Labor Statistics (BLS) website."
- Text about the transition to the 2018 Standard Occupational Classification (SOC) system: "During the transition to the 2018 Standard Occupational Classification (SOC) system, OEWS estimates are based on a 'hybrid' structure that is a combination of the 2010 SOC and 2018 SOC. Wisconsin uses a SOC to ONET crosswalk within our applications. We have rolled the hybrid codes to SOC codes to remain consistent. You can open the WisEconomy hybrid structure pdf here."
- Navigation links: [Learn More](#) | [Subscribe to Email](#) | [Data Access](#)
- Contact information: **Contact**  
Sal Serio  
(608) 733-3925
- Section header: **OEWS Data Visualization**
- Text about data visualization: "DWD recommends using Google Chrome, Apple Safari, and Microsoft Edge in full screen on a desktop computer to view visualizations. More of these tools can be found on the Visual Catalog page. If you would like to create, save and share a visualization, go to the Data Tools page and Create Visualization. Visit the Help Page for assistance with the tools below."
- Navigation menu: [WI Wage Report](#) | [Simple Employment Search](#) | [Scatter Plot](#) | [Historical Search](#) | [Visualization Map](#)
- Section header: **Simple Employment Search**
- Buttons: [Advanced Data Query](#), [OEWS Data Downloads](#), [MyLMI Widgets](#), [Subscribe to Email List](#), [Go Back](#)

Two large red arrows are overlaid on the image: one pointing from the text area to the navigation buttons, and another pointing from the 'OEWS Data Visualization' section to the 'Simple Employment Search' section.



# Questions?

Sal Serio

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Current Employment Statistics (CES)  
2023 BWITS Ideas Forum

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Joanna Frasch | CES Program Manager  
October 18<sup>th</sup>, 2023



# Current Employment Statistics (CES)

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## What is CES?

- Monthly payroll survey of non-farm establishments
- Provides current estimates of employment, hours, and earnings by industry
- Data is reported for the nation overall, 50 states, DC, PR, VI and 310 Metropolitan Statistical Areas (MSA)

## Who/What is counted?

- Non-farm establishment payrolls
- Full or part time who worked or received pay for any part of the pay period that includes the 12th day of the month
- Jobs not workers
  - Example: workers appearing on two payrolls are counted twice
  - Counted by location of job not residence of worker





# Current Employment Statistics (CES)

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## How is the data used?

- Measures growth or decline in number of jobs, hours, and hourly earnings across nonfarm industries
- One of the 7 Principle Federal Economic Indicators
- Change in employment is a key indicator of the state of the economy
- Change in Average Hourly Earnings is a useful indicator of wage inflation
- Change in Average Weekly Hours is a leading indicator of changes in employment







# Current Employment Statistics (CES)

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## Who produces CES estimates?

### **BLS:**

- Funds & administers
- Selects sample & collects data
- Produces estimates
- Benchmarks

### **States:**

- Analyze & Publish
- Provide Non-Covered Employment
- Provide payroll data
- Local Economic Events



# Current Employment Statistics (CES)

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## Who uses the data?

- **States** use CES data to understand employment level changes month-over-month and year-over-year by sector and MSA.
- **Congress** uses CES data to help make policy decisions on such issues as tax increases, decreases, extension of unemployment benefits, or changes in minimum wage laws.
- The **Federal Reserve Board** attempts to regulate the US economy by adjusting short-term interest rates. Because they are measures of current change, CES data are important inputs to this decision-making process.
- **Bureau of Economic Analysis** uses CES data to compute the personal income portion of Gross Domestic Product estimates.





Wage Records Program (WRP)  
2023 BWITS Ideas Forum

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Joanna Frasch | Senior Research Analyst  
October 18<sup>th</sup>, 2023



# Wage Records Program (WRP)

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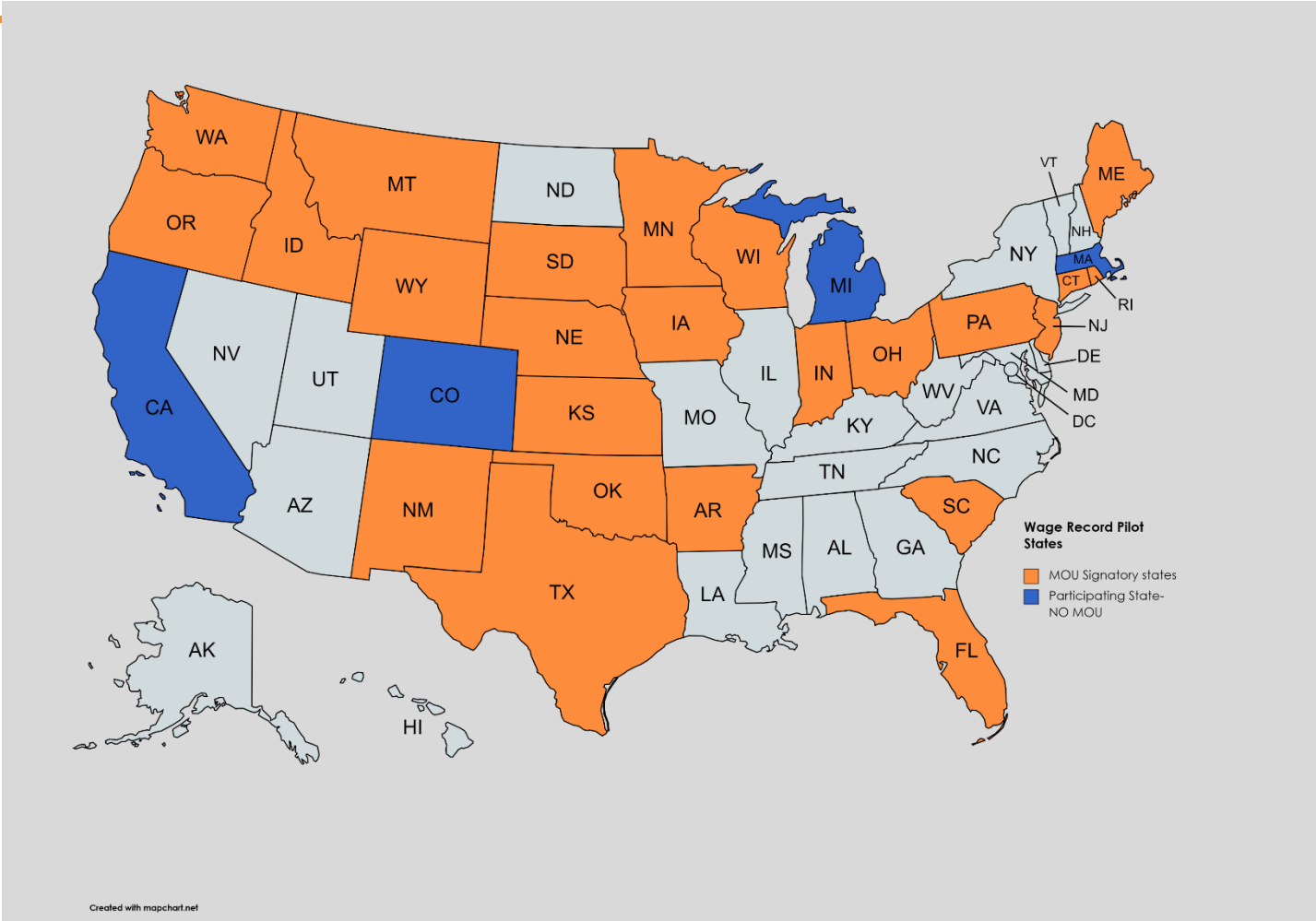
## What is the Wage Records Program?

- The Wage Records Program (WRP) is an initiative of the Bureau of Labor Statistics (BLS) that compiles state wage record data to form a multi-state longitudinally linked data set to be used to support national, regional, and local analyses.
- States are required by the Unemployment Insurance (UI) program to collect information in the form of wage records, wage records are a rich source of data that can be utilized to better understand the labor market.
- There are currently 28 states participating in this program.
- A multi-state data set will expand economic research opportunities across state lines and enable the creation of additional data products to support public decision making for both the states and the federal government.





# Wage Records Program (WRP)





# Wage Records Program (WRP)

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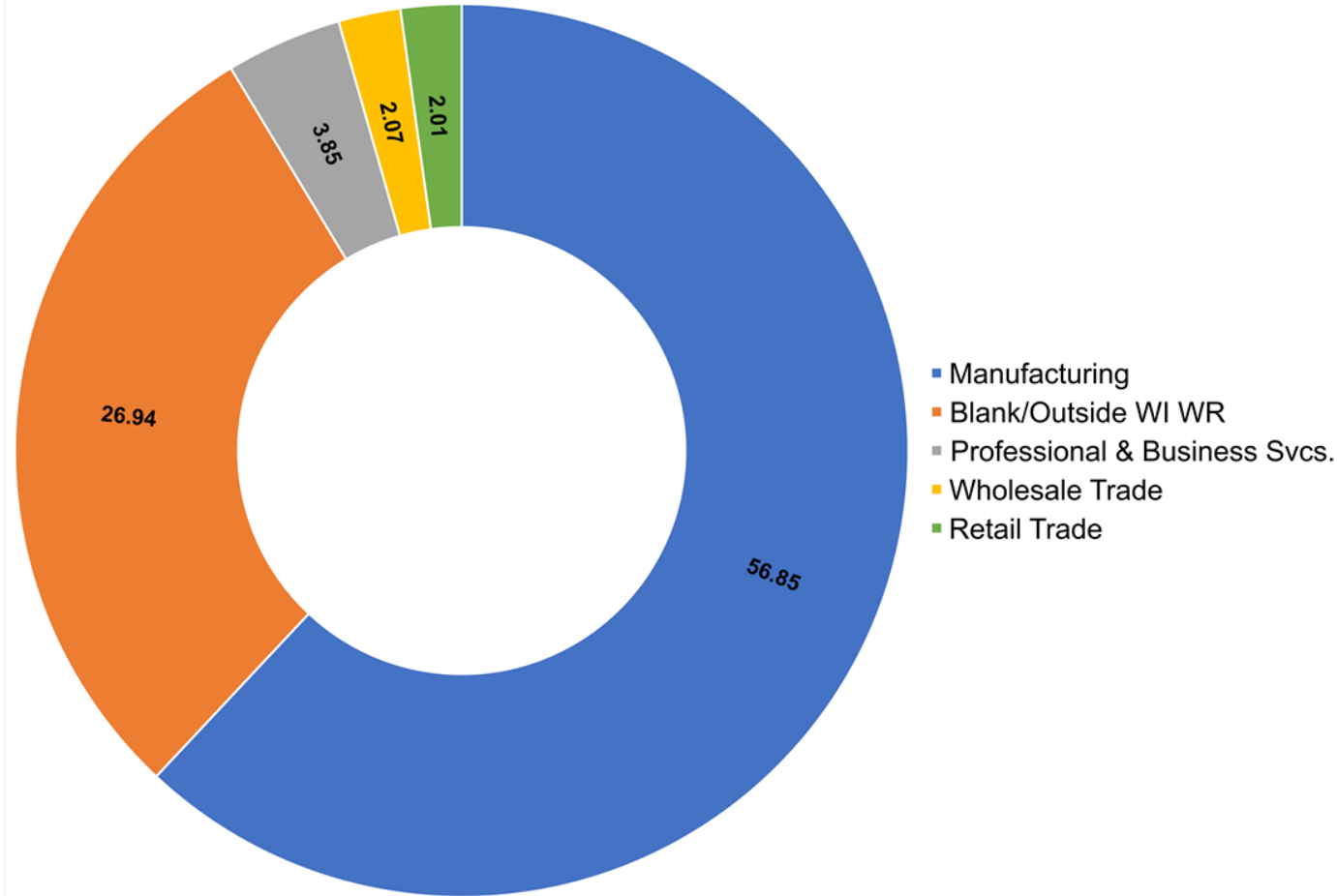
## Cohort Retention Study – the beginning...

- Following cohorts of workers in industries from Q1 2017 to Q4 2022
- Retention Rates over time and by industry
- Multiple Industry Sectors
- How long were workers retained in the industry? If not retained, where did they go?



# Wage Records Program (WRP)

2017 Manufacturing Cohort Ending Industry



## Manufacturing Cohort

Q1 2017: 482,886 Wage Records.

What happened by Q4 2022?

- The majority stayed in Manufacturing
- Next Largest group Outside Wage Records – what does this mean?





# Wage Records Program (WRP)

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## What's next using this data?

- Retention rates for other major industries
- Study other cohorts (2019 and 2021)
- Obtain data from neighboring states, how do retention rates compare?
- Use with other data sets
  - PROMIS File
  - Social Security Retirement
  - Nursing Licenses





# Thank You!

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Thank you to all employers and data users for their participation in surveys and enthusiastic use of our data products!

**THANK  
YOU**





# Joanna Frasch

Senior Research Analyst | CES Program Manager

Please feel free to contact me with questions:

Email: [Joanna.Frasch@wi.gov](mailto:Joanna.Frasch@wi.gov) | Phone: 608-733-3870





# Local Area Unemployment Statistics (LAUS)

Bob Pope | Labor Market Information Section Chief

Ideas Forum

October 18, 2023

# Local Area Unemployment Statistics (LAUS)

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## What is LAUS?

Model produces monthly and annual data

### State (seasonally adjusted and not seasonally adjusted)

- Unemployment rate
- Labor force participation rate (LFPR)
- Labor Force
- Employment
- Unemployment

### Local (not seasonally adjusted only, no LFPR)

- 72 counties
- 35 Cities (new cities get added when population reaches 25,000)
- 12 Metropolitan Statistical Areas (MSAs)



# What is LAUS?

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## Not Seasonally Adjusted (NSA)

- State
- All areas

## Seasonally Adjusted (SA)

- State

## Workers not jobs = Residence survey

- Current Population Survey (CPS)
- Conducted by Census Bureau on behalf of Bureau of Labor Statistics (BLS)
- Monthly survey of 60,000 households about 110,000 people




# Who is employed in the CPS?

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- Includes civilian noninstitutional population ages 16 and older
  - Persons working as employees for at least one hour in the reference week (wage and salary workers)
  - Persons working in their own business, profession, or farm (self employed)
  - Persons working without pay for at least 15 hours in a business owned by a family member (unpaid family workers)
  - Persons temporarily absent from their job, for reasons such as vacation, illness, or parental leave
- Excludes active-duty military and people in institutions such as prisons, mental facilities and nursing homes





# Who is unemployed in the CPS?

- People who did not work during the reference week and who:
  - Are currently available to work
  - Made specific, active efforts to find work during the last four weeks
  - Active job search methods: Filling out applications, sending resumes, placing and answering ads, checking with friends, checking with employment services or union register
- People on layoff from a job who expect to be recalled, whether or not they looked for work



# Who is not in the labor force?

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- Persons who are neither employed nor unemployed are classified as “not in the labor force.”
  - Retirees
  - Students
  - Stay-at-home parents
  - The ill or disabled
  - Marginally attached and discouraged workers
    - Marginally attached: have not looked for work in the past four weeks (so are not counted as unemployed) but have looked in the past year.
    - Discouraged workers: Subset of the marginally attached, who specifically express that they have given up looking because they believe no jobs are available to them.





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How LAUS  
data can be  
used?

Indicating distressed and recovering areas

Establishing need for workforce development programs

Measuring success of economic initiatives

Allocating federal funds to states and local areas

Assessing local labor market conditions



Bob Pope  
LMI Section Chief

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# WISCONSIN LONG TERM PROJECTIONS

2020 - 2030

**Nicholas Hill**

Senior Research Analyst | Office of Economic Advisors

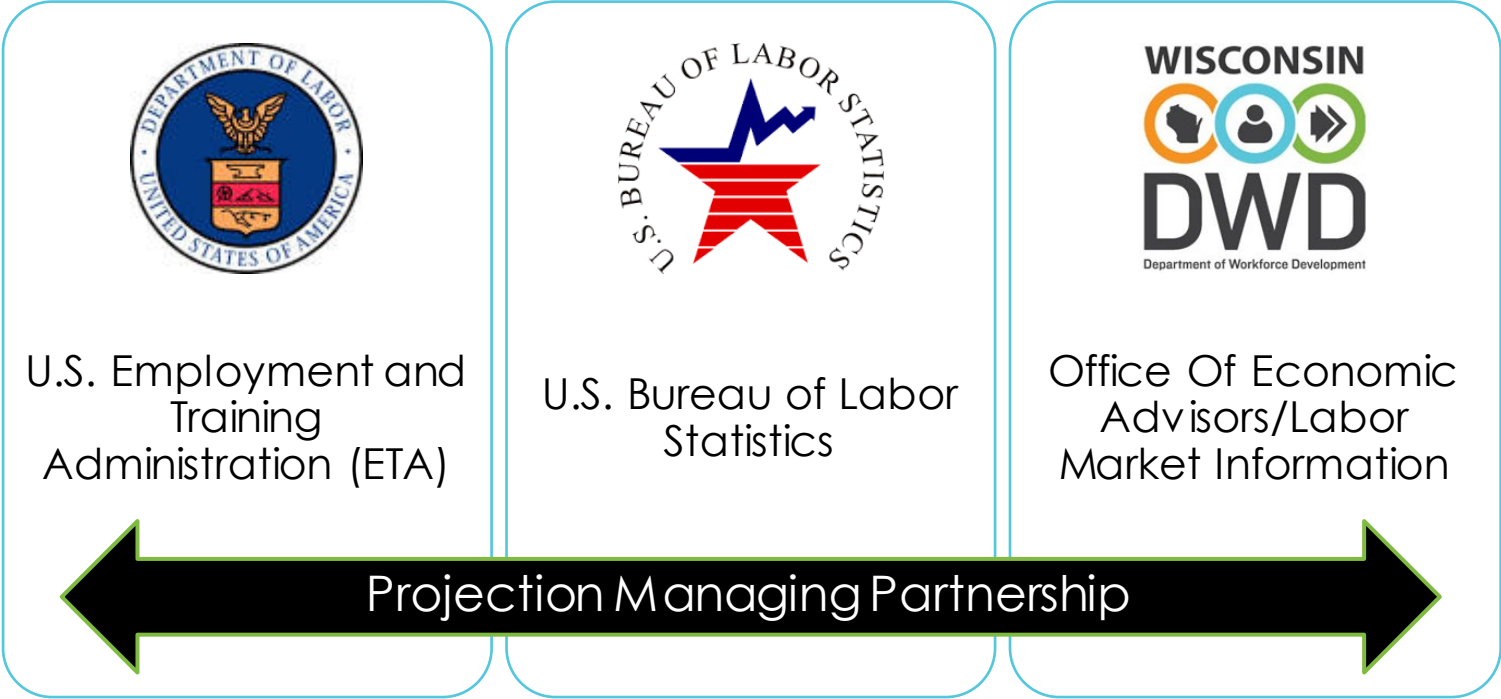
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# Partnership

## US Department of Labor



Projections Managing Partnership





# Wisconsin Employment Projections

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- Long-term Industry and Occupational Employment Projections
  - 10 year
  - 270 detail industries (NAICS)
  - 800 detail occupations (SOC)
  - ETA deadline: *June (every other year)*
  - Statewide & WDA
- Short-term Industry and Occupational Employment Projections
  - Two year
  - 270 detail industries (NAICS)
  - 800 detail occupations (SOC)
  - ETA deadline: *February*
  - Statewide





# Usage

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Career planning and guidance

Workforce investment planning

Training and education

Business investment

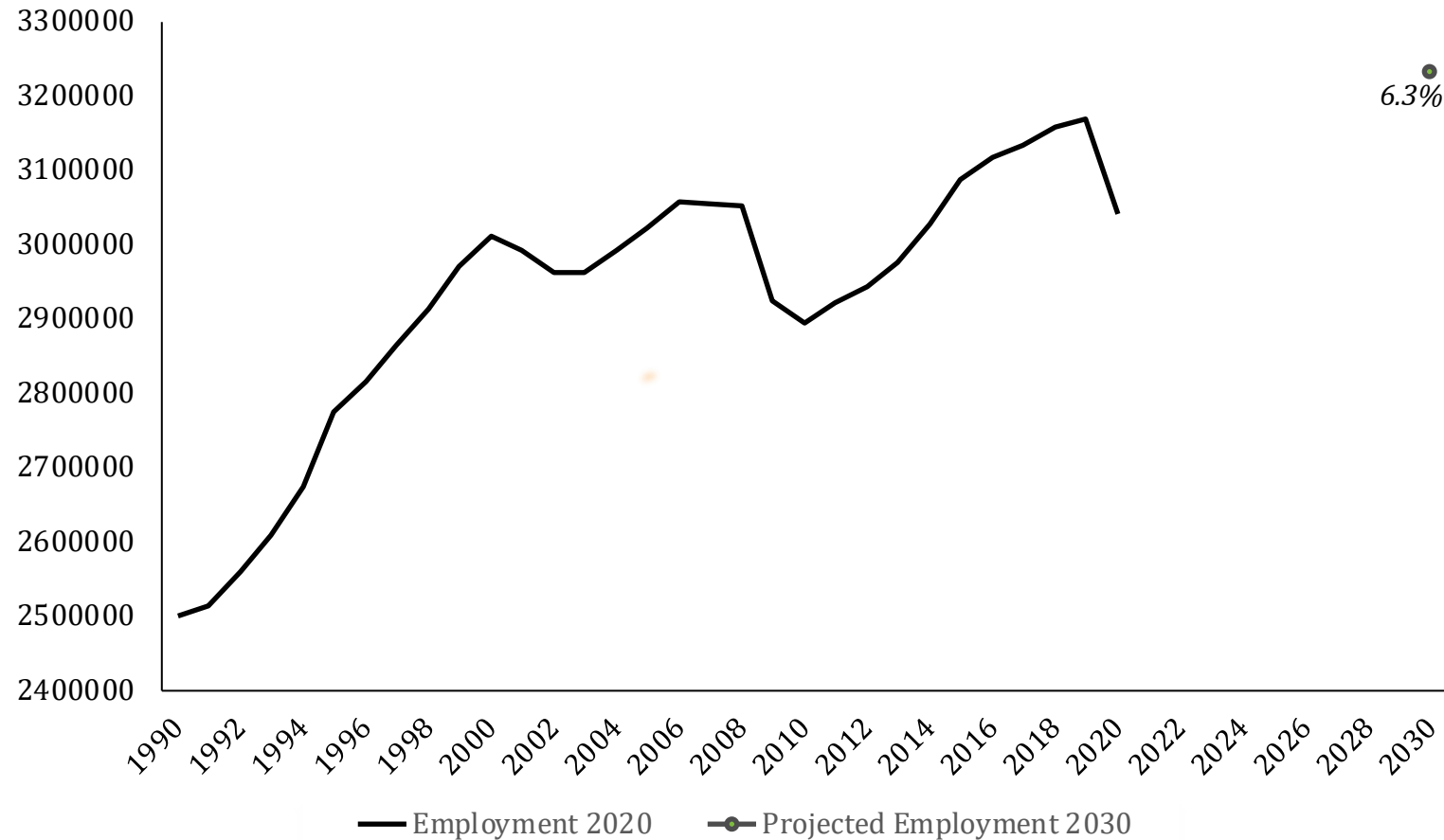
Policy making

Researchers

Job seekers



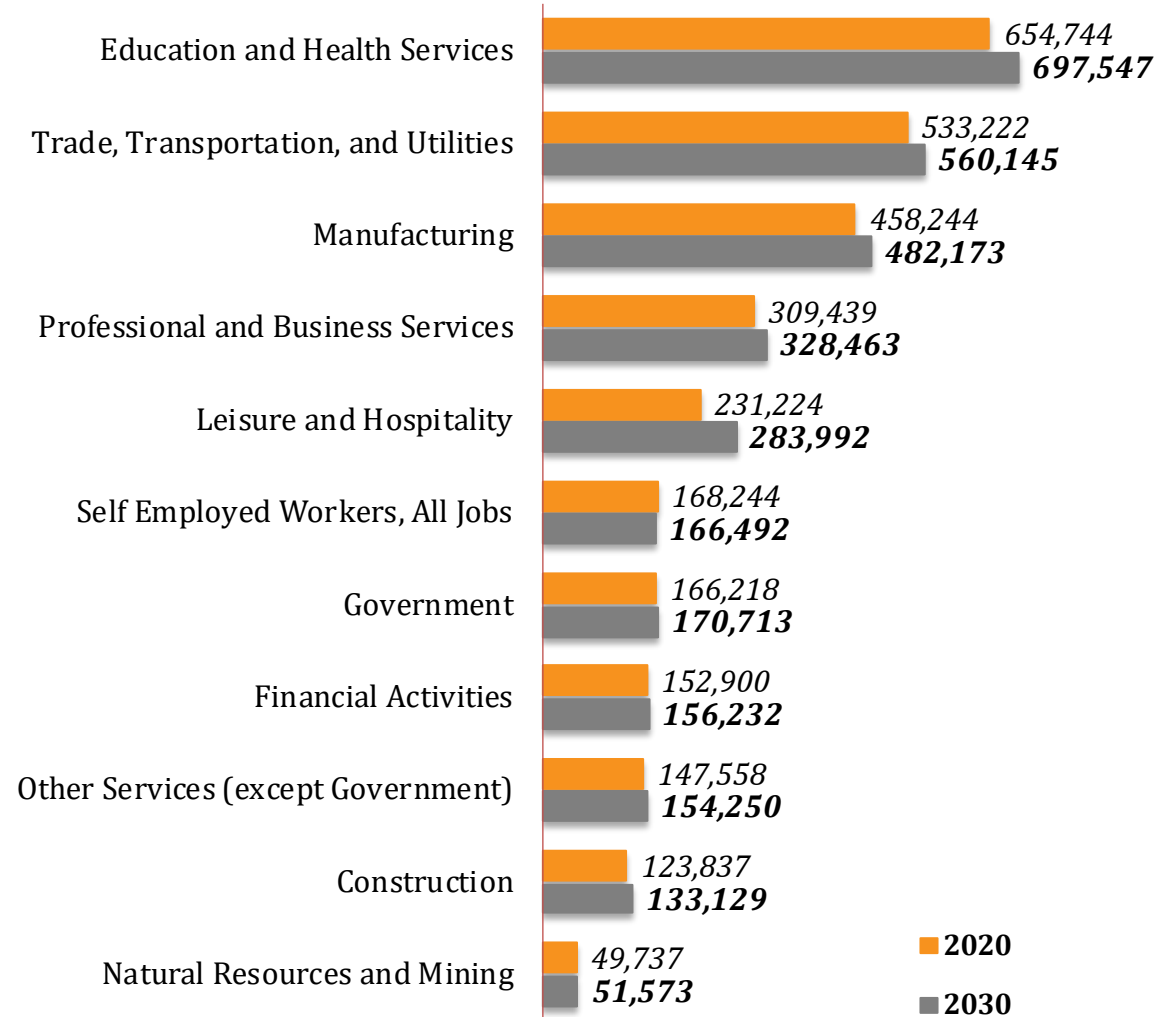
# Wisconsin Total Employment



Source: Wisconsin Department of Workforce Development, Office of Economic Advisors, Wisconsin Employment Projections 2020-2030

DWD.WISCONSIN.GOV

# Projected Employment 2020 - 2030



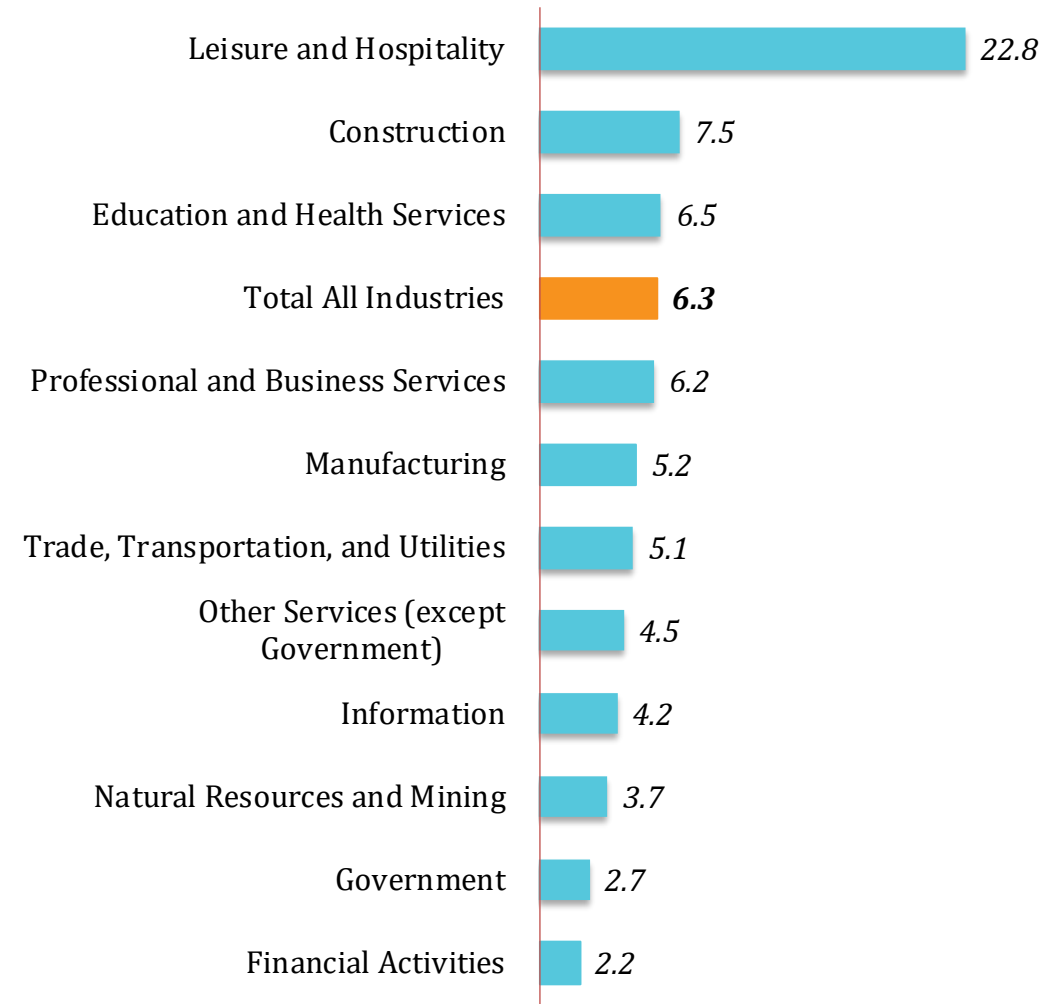
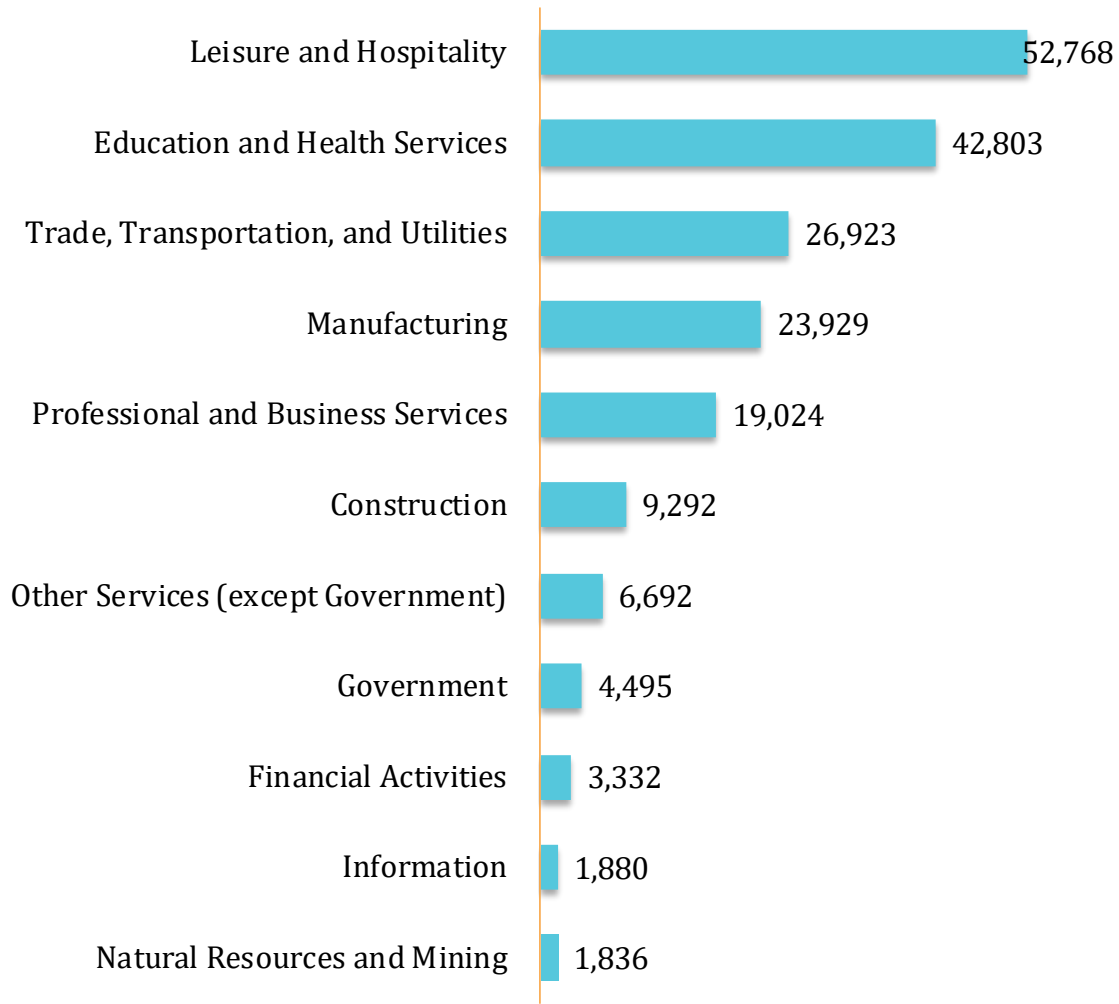
Source: Wisconsin Department of Workforce Development, Office of Economic Advisors, Wisconsin Employment Projections 2020-2030





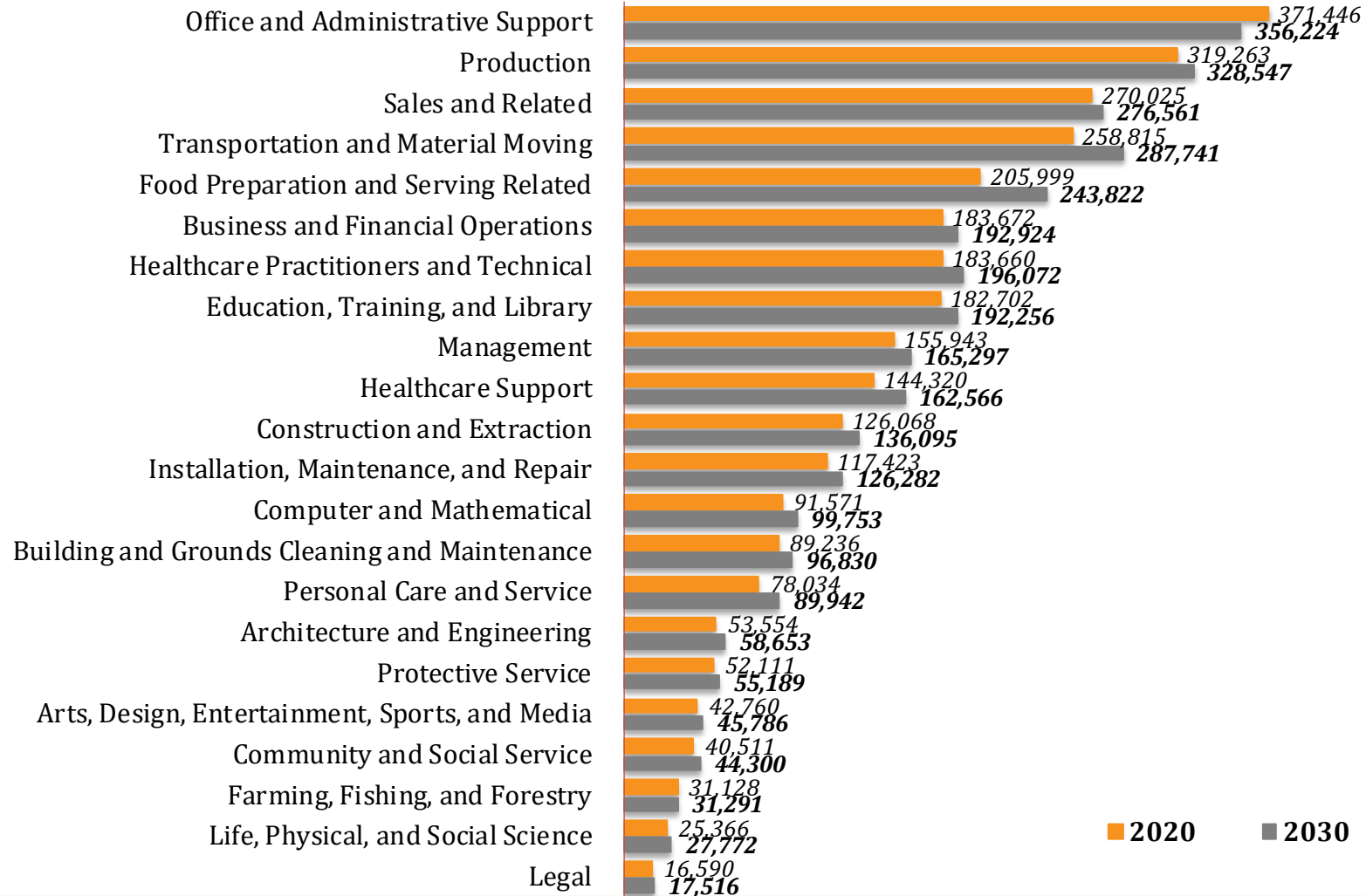
# Super-Sector By Numeric Change: 2020-2030

# Super-Sector By Percent Change: 2020-2030



Source: Wisconsin Department of Workforce Development, Office of Economic Advisors, Wisconsin Employment Projections 2020-2030

# Long-Term Occupational Employment Projections 2020-2030



# See More: WisConomy

Scan the QR  
code or visit

<https://jobcenterofwisconsin.com/wisconomy/pub/projections>

The screenshot displays the WisConomy website interface. At the top, the header includes the State of Wisconsin DWD logo and the 'WisConomy' brand name. Navigation links for 'MyLMI', 'Online Workshops', 'Resources', and 'Help' are visible. A 'Login' button and a 'Create a Logon' link are positioned on the right. Below the header, a secondary navigation bar contains 'Home', 'Employers', 'Job Seekers', and 'Featured Industries'. The main content area is titled 'Projections' and features a sub-navigation bar with links for 'WisConomy Home', 'Programs', 'Economist', 'Data Tools', 'Dashboards', 'What's New', 'Contact Us', and 'Help'. The 'Overview' section provides a detailed description of the Projections Unit's work, including long-term and short-term outlooks. A 'Data Used to Create Projections' section lists sources such as the U.S. Census Bureau, Current Employment Statistics (CES), Quarterly Census of Employment and Wages (QCEW), Occupational Employment & Wage Statistics (OEWS), Current Population Survey (CPS), and BLS Employment Projections. Below this, a 'Downloads & Links' section offers buttons for 'Industry Projections' and 'Occupation Projections'. A footer note suggests visiting a specific report for a review of the data.

**STATE OF WISCONSIN DWD**  
Department of Workforce Development

**WisConomy**

MyLMI | Online Workshops | Resources | Help

Login  
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Home | Employers | Job Seekers | Featured Industries

## Projections

WisConomy Home | Programs | Economist | Data Tools | Dashboards | What's New | Contact Us | Help

### Overview

The Projections Unit of the Office of Economic Advisors develops both long-term and short-term outlooks of employment in Wisconsin's industries and occupations. Projections employment includes nonagricultural wage and salary employment; workers in private households, agriculture, forestry, fishing, hunting, trapping, and self-employed workers (SE) are included. Employment trends in approximately 300 industries and 770 occupations are examined.

The long-term projections are for ten years out into the future and are updated every two years. The short-term projections are for two years into the future and are updated annually. Projections are done for Wisconsin as a whole and for [Workforce Development Areas \(WDA\)](#).

Long-term projections assist customers in long-run planning, while short-term projections help inform customers of more immediate employment conditions. Students, job seekers, and counselors may use the projections to explore employment in occupations and industries. Educational institutions may use occupational projections to evaluate degree and/or course offerings. Researchers may use the data in analyses of Wisconsin's labor market. Employers may use the data to examine expected employment in industries and occupations.

Visit [Understanding Wisconsin's Job Outlook: Industry & Occupation Projections in Brief \(pdf\)](#) for a review of the

### Data Used to Create Projections

- U.S. Census Bureau
- Current Employment Statistics (CES)
- Quarterly Census of Employment and Wages (QCEW)
- Occupational Employment & Wage Statistics (OEWS)
- Current Population Survey (CPS)
- BLS Employment Projections

### Downloads & Links

Industry Projections

Occupation Projections



# Questions?

## Thank You!

Nicholas Hill

[nicholas.hill@dwd.wisconsin.gov](mailto:nicholas.hill@dwd.wisconsin.gov)

