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# Basic Labor Market Information Analyst Training Day I

VIRTUAL  
November 16-19, 2020



# Training topics, goals, and expectations

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## ▶ Training topics

- ▶ Labor market information, what it is, and how to use it

## ▶ Training goals

- ▶ Learn how to collect, analyze, and interpret labor market information
- ▶ Learn how to use LMI in a variety of different scenarios to answer a variety of questions

## ▶ Training expectations

- ▶ Practical skills development
- ▶ Hands-on exercises
- ▶ Learn to tell data-driven story about your state, regional, and/or local area

# Agenda – Day 1

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- ▶ Intro to Labor Market Information
- ▶ Understanding the Core LMI Programs
  - ▶ Programs Funded by DOL
  - ▶ WIOA Grant Activities
  - ▶ Federal/State Cooperative Programs
  - ▶ BLS Confidentiality
- ▶ Introduction to Data Sets
  - ▶ Current Population Survey
  - ▶ Local Area Unemployment Statistics
  - ▶ Current Employment Statistics

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# Introduction to Labor Market Information

# What is labor market information?

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Labor market information (LMI) includes all quantitative or qualitative data and analysis related to employment and the workforce.

- ▶ **Industry and Occupation (*Jobs*)**
  - ▶ Employment
  - ▶ Wages
  - ▶ Projections
- ▶ **Labor Force (*People*)**
  - ▶ Employed
  - ▶ Unemployed
  - ▶ Demographic characteristics

# Why is it important?

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- ▶ LMI helps customers make informed plans, choices, and decisions for a variety of purposes, including
  - ▶ Business investments
  - ▶ Career planning and preparation
  - ▶ Education and training offerings
  - ▶ Job search opportunities
  - ▶ Hiring and compensation
  - ▶ Public or private workforce investments.

# Who produces LMI?

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- ▶ **Federal**
  - ▶ Bureau of Labor Statistics
  - ▶ Employment and Training Administration
  - ▶ US Census Bureau
- ▶ **State**
  - ▶ Labor Market Information Shops
- ▶ **Third-Party / Proprietary**
  - ▶ C2ER
  - ▶ Many others...
    - ▶ Conference Board, Burning Glass, Indeed, etc.

# Who uses LMI?

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- ▶ Workforce development
- ▶ Economic development
- ▶ Education and training providers
- ▶ Job seekers
- ▶ Policy makers and researchers
- ▶ News media



# How can I use it?

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- ▶ Better understand your local/ regional economy
- ▶ Facilitate data-driven decision-making
- ▶ More efficient allocation of resources
- ▶ Guide strategic planning efforts
- ▶ Inform your customers

# What are the underlying values of the LMI system?

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- ▶ Unbiased
- ▶ Known reliability
- ▶ Timely
- ▶ Free
- ▶ Accessible
- ▶ Secured if confidential

# Getting started with the major websites

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- ▶ Bureau of Labor Statistics [www.bls.gov](http://www.bls.gov)
- ▶ US Census Bureau <https://data.census.gov>
- ▶ Bureau of Economic Analysis [www.bea.gov](http://www.bea.gov)
- ▶ IPUMS <https://usa.ipums.org/usa/>
- ▶ Projections Managing Partnership  
[www.projectionscentral.com](http://www.projectionscentral.com)
- ▶ California LMI <https://www.labormarketinfo.edd.ca.gov/>
- ▶ Your state's LMI site... *some are better than others.*

▶ Time Duration of Exercise: 10 minutes

*Be sure to bookmark these and all other websites we visit.*

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# Group Scenarios

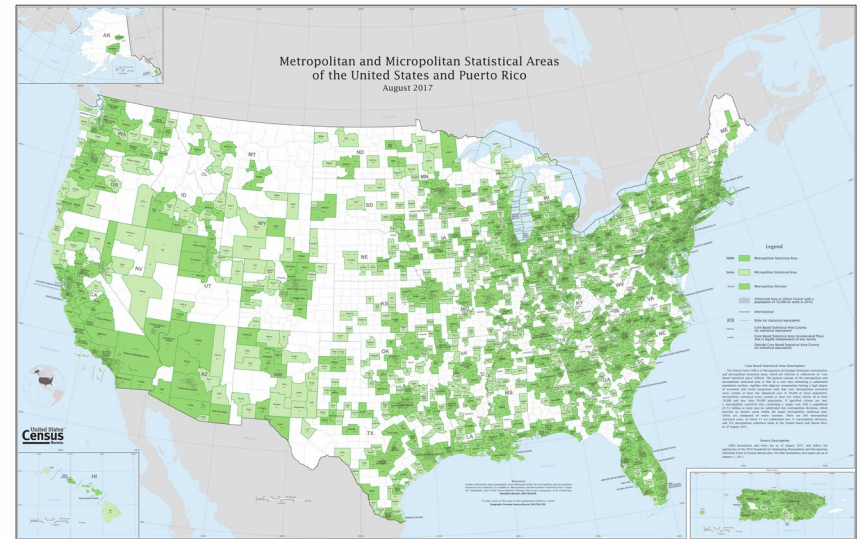
# Group Scenarios for Roundtable

## ▶ Tomorrow's Roundtable

- ▶ Team approach researching assigned metro area
- ▶ Collect and analyze data as course progresses

## ▶ Scenario and Metro

- ▶ You work for a state labor market shop
- ▶ Tell us about the economy of your metro area. Broad employment trends, important industries, workforce trends, etc.



### **Our Metro Areas:**

- Spokane-Spokane Valley, WA
- St. George, UT
- Lake Charles, LA
- Wichita, KS
- Duluth, MN
- Burlington-South Burlington, VT

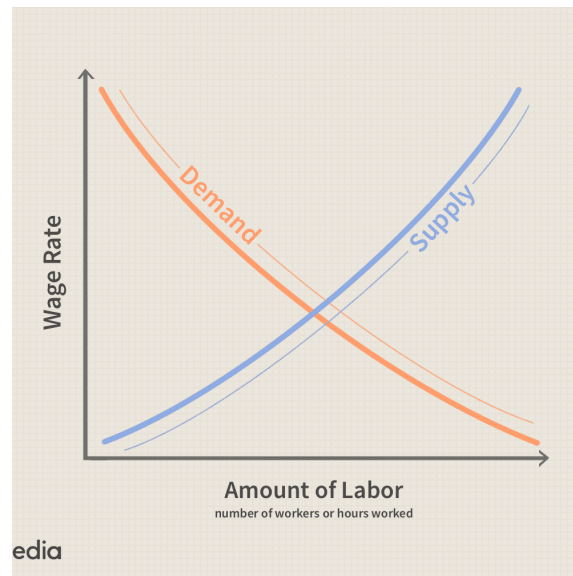
# Group Scenario:

## Prepare to debrief with the class

- ▶ As we progress through the training...
  - ▶ Collect data and analyze the labor market of your assigned metro area.
  - ▶ Things to consider about your regional economy:
    - ▶ **Overall Economy:** Labor Force, employment, unemployment, and unemployment rate, GDP
    - ▶ **Industry Analysis:** Industry structure, growth trends, high location quotients, analysis relative to workforce or economic development strategies
    - ▶ **Occupation Analysis:** Occupational projections, wages, skills related to selected Industries of focus
    - ▶ **Business or Demographic Analysis:** Any analysis related to focus topics of concern
    - ▶ **Conclusions:** So what?

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# Introduction to Data Sets



# Core Bureau of Labor Statistics (BLS) Programs

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- ▶ **Current Population Survey (CPS)**
  - ▶ U.S. labor force statistics (*Household*)
- ▶ **Local Area Unemployment Statistics (LAUS)**
  - ▶ State and local area labor force statistics (*Household*)
- ▶ **Current Employment Statistics (CES)**
  - ▶ Total nonfarm and broad industry employment (*business*)
- ▶ **Quarterly Census of Employment and Wages (QCEW)**
  - ▶ Jobs and payroll by industry at county level (*business*)
- ▶ **Occupational Employment Statistics (OES)**
  - ▶ Employment and wage estimates by occupation
- ▶ **\*Consumer Price Index (CPI)**
  - ▶ Weighted average for the price of goods



# Workforce Innovation & Opportunity Act (WIOA) Funded Activities

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- ▶ State LMI websites
- ▶ State industry and occupational projections
- ▶ State workforce reports
- ▶ State special reports
  
- ▶ *Local workforce development boards*
- ▶ *One-stop job centers*

# BLS Confidentiality

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- ▶ Confidential Information Protection and Statistical Efficiency Act (CIPSEA) of 2002
  - ▶ Establishes uniform confidentiality protections for information collected for statistical purposes by U.S. statistical agencies, and it allows data sharing between the Bureau of Labor Statistics, Bureau of Economic Analysis, and Census Bureau.
    - ▶ *Bad stuff can happen if you breach confidentiality rules*
  - ▶ Annual training for BLS designated agents.
- ▶ State Confidentiality Laws
  - ▶ 3/80 rule!

# Labor Force Concepts and Questions

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- ▶ **Data**
  - ▶ Census and estimates (surveys and models)
- ▶ **People**
  - ▶ Individuals, population, workers
- ▶ **Employment**
  - ▶ Employed workers and jobs
- ▶ **Pay**
  - ▶ Wages, earnings, payroll, income
- ▶ **Geography**
  - ▶ Workplace and residence
- ▶ **Questions?**

# Current Population Survey (CPS)

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- ▶ The Current Population Survey (CPS) is one of the oldest, largest, and most well-recognized surveys in the United States, providing information on work, earnings, and education.
  - ▶ National, statewide, and very large metro areas (top 12)
- ▶ The CPS is a monthly household survey conducted by the Census Bureau for the Bureau of Labor Statistics, and provides a comprehensive body of information on the employment and unemployment experience
  - ▶ ~60,000 households surveyed each month with a 90 percent response rate!

# Current Population Survey (CPS)

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- ▶ What does it look like?
  - ▶ Publically available data includes:
    - ▶ Labor force
    - ▶ Employment
    - ▶ Unemployment
    - ▶ Persons not in the labor force (and why!)
    - ▶ Hours of work
    - ▶ Earnings
  - ▶ Data is available by:
    - ▶ Monthly
    - ▶ Each data topic has different demographic, status, and other variable breakouts

# Local Area Unemployment Statistics (LAUS)

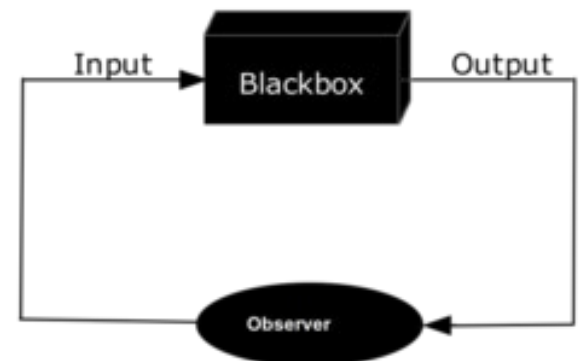
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- ▶ The Local Area Unemployment Statistics (LAUS) program is a federal-state cooperative effort in which monthly estimates of total employment and unemployment are prepared for approximately 7,500 areas.
- ▶ These estimates are key indicators of local economic conditions.

# Local Area Unemployment Statistics (LAUS)

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- ▶ The concepts and definitions underlying LAUS data come from the Current Population Survey (CPS)
- ▶ State monthly model-based estimates are controlled in "real time" to sum to national monthly employment and unemployment estimates from the CPS.
- ▶ These models combine current and historical data from the CPS, the Current Employment Statistics (CES) survey, and state unemployment insurance (UI) systems.



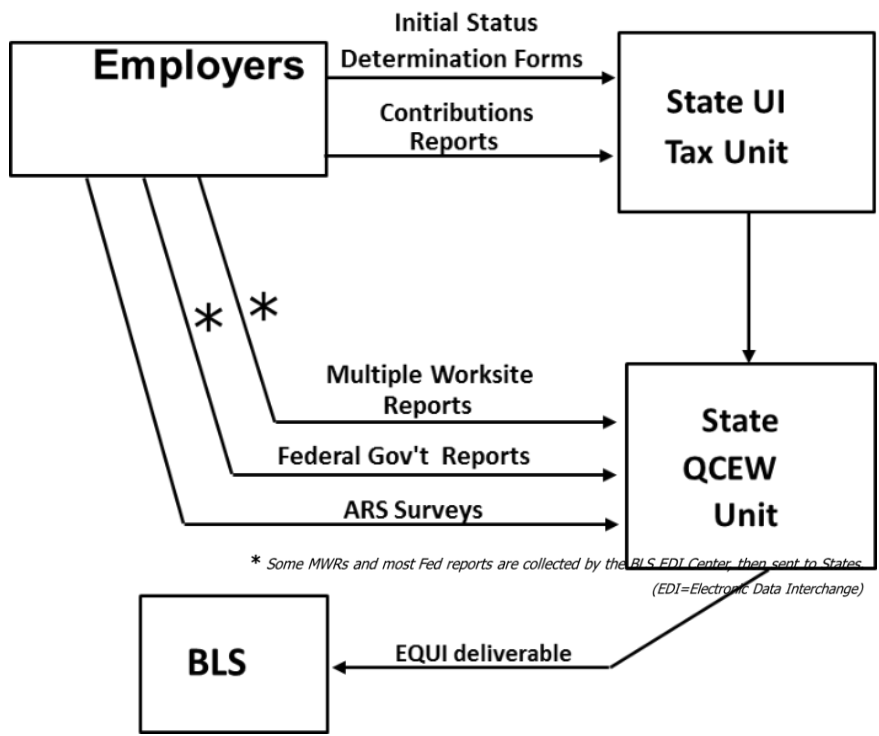
# Local Area Unemployment Statistics (LAUS)

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- ▶ Publically available data includes:
  - ▶ Unemployed
  - ▶ Employed
  - ▶ Total Labor force (*employed + unemployed*)
  - ▶ Unemployment rate (*unemployed / total labor force*)
- ▶ Data is available by:
  - ▶ Statewide, metropolitan areas, metropolitan divisions, micropolitan areas, combined areas, counties and equivalents, cities and towns above 25k population, and balance of state areas
  - ▶ Seasonally adjusted, and not seasonally adjusted
  - ▶ Monthly



# QCEW Data Flow and NAICS



Add 6-D NAICS

2 Digit NAICS	Description
11	Agriculture, Forestry, Fishing and Hunting
21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information
52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Tech. Services
55	Management of Companies and Enterprises
56	Admin and Support and Waste Management
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Food Services
81	Other services
92	Public administration
99	Unclassified

# Quarterly Census of Employment and Wages (QCEW)

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- ▶ The QCEW is a cooperative program involving the Bureau of Labor Statistics (BLS) of the U.S. Department of Labor and the State Employment Security Agencies (SESAs).
- ▶ The QCEW program produces a comprehensive tabulation of employment and wage information for workers covered by Unemployment Insurance (UI) laws and Federal workers.
- ▶ The QCEW program serves as a near census of monthly employment and quarterly wage information by 6-digit industry codes from the North American Industry Classification System (NAICS) at the national, state, and county levels.

# Quarterly Census of Employment and Wages (QCEW)

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- ▶ **Publicly available files include data on:**
  - ▶ Number of establishments
  - ▶ Monthly employment
  - ▶ Quarterly wages
- ▶ **Data is available by:**
  - ▶ NAICS industry level and ownership sector
  - ▶ County, MSA, state, and national level
  - ▶ Quarterly or annual

# Quarterly Census of Employment and Wages (QCEW)

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- ▶ Covers 95+% of all nonfarm wage and salary workers and 45% of agricultural workers
  - ▶ Covers all employers subject to state Unemployment Insurance (UI) laws, as well as Federal employees
  - ▶ Who isn't covered?
- ▶ Published for every quarter, but only available ~6 months after the end of each quarter
  - ▶ QCEW produces detailed geographic data on employment and wages
  - ▶ QCEW are considered “universe” and not sample data
- ▶ *Important notes:*
  - ▶ *QCEW is cornerstone of most BLS programs*
  - ▶ *Not designed to be used as a time-series*

# QCEW Tips

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- ▶ Answers: What are the detailed industries in my local economy? What are the wages of workers in those industries?
- ▶ Strength is detail, but not as timely as CES, 6- to 9-month lag
- ▶ Available quarterly for the nation, state, MSA, and county
- ▶ Only covered workers – does not cover most farming and self- employed
- ▶ Technically NOT supposed to be used as time-series due to non-economic code changes

# Current Employment Statistics (CES)

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- ▶ CES is an employment estimate based on a sample of QCEW and estimates of “non-covered” employment.
- ▶ Persons employed full- or part-time for any part of pay period that includes the 12<sup>th</sup> day of the month.

Included	Excluded
<ul style="list-style-type: none"><li>• Temporary / intermittent</li><li>• Workers on sick or vacation leave</li><li>• Government civilian workers</li></ul>	<ul style="list-style-type: none"><li>• Proprietors, (owners)</li><li>• Self-employed</li><li>• Unpaid family or volunteer workers</li><li>• Farm workers</li><li>• Domestic workers</li></ul>

- ▶ Person on payroll of multiple establishments are counted multiple times
- ▶ Benchmarked once a year (or in some cases quarterly) to “true” universe (QCEW)
- ▶ BLS national office staff estimate the CES employment figures for states and metro areas

# Current Employment Statistics (CES)

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- ▶ Publicly available files include data on:
  - ▶ Monthly employment
  - ▶ Average weekly hours – by month
  - ▶ Average weekly and hourly earnings – by month
- ▶ Data is available by:
  - ▶ NAICS industry level (*level of reporting varies by size of sample*)
  - ▶ County, MSA, MD, state, and national level
  - ▶ Monthly and annual

# Exercise:

## Unemployment Rate Exercise

Go to <https://www.bls.gov/lau/data.htm> and select the multiscreen search:

1. What was the *not seasonally adjusted (NSA)* unemployment rate as of September 2020 in your area, as well as...
  - ▶ The State of your metro area
2. Adjust the time frame so you can get more historical data for your Metro in September 2010, September 2015, and September 2020
  - ▶ What was the unemployment rate?
  - ▶ What was the size of the labor force?



# Occupational Employment Statistics (OES)

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- ▶ The OES program produces employment and wage estimates annually for over 800 occupations.
- ▶ The OES program conducts a semi-annual mail survey designed to produce estimates of employment and wages for specific occupations.
- ▶ Wage estimates are based on 3-years of survey collections
  - ▶ Do not use as a time-series!

# Occupational Employment Statistics (OES)

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- ▶ The Bureau of Labor Statistics produces occupational employment and wage estimates for over 450 industry classifications at the national level (Staffing patterns)
- ▶ State UI payroll records are the universe for survey
  - ▶ Data from self-employed persons are not collected and are not included in the estimates.
- ▶ Published annually (in Spring)
- ▶ Wage estimates “aged” to current year
- ▶ Imputations common or “neighbor borrowing”

# Occupational Employment Statistics (OES)

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- ▶ **Publicly available files include data on:**

- ▶ Employment estimates

- ▶ Wage estimates

- ▶ **Data is available by:**

- ▶ NAICS industry level or ownership sector

- ▶ County, MSA, MD, state, and national level

- ▶ Metro area estimates:

- <https://www.bls.gov/oes/current/oessrcma.htm>

- ▶ Statewide estimates:

- <https://www.bls.gov/oes/current/oessrcst.htm>

## Exercise: Pull Industry Data

- ▶ Go to <https://www.bls.gov/data/>
- ▶ Pull the following CES data for **your metro area**:
  - ▶ Employment
  - ▶ Total Nonfarm; Total Private; Manufacturing; and Leisure and Hospitality
  - ▶ March 2010 through March 2020
- 1. What was the 10-year percentage change in employment in total nonfarm? (*Bonus points: What grew faster, manufacturing or leisure/hospitality?*)
- 2. Go back to <https://www.bls.gov/data/> and do the same exercise for QCEW annual employment (“total covered”), from March 2010 to March 2020. How do these numbers compare to CES Total Nonfarm? Why do you think that is?

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# End of Day I