

COLUMBUS STATE

COMMUNITY COLLEGE

Getting Started with Labor Market Data: From Vision to Reality

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June 8th, 2022; 2:15-3:00pm

Session Objectives

Identify	Identify a process for developing a research agenda around student labor market outcomes.
Learn	Learn some of the challenges and strengths of using labor market data.
Discover	Discover techniques and nuances in analyzing labor market data.
Understand	Understand how labor market data can be leveraged for data-based decision making.

Columbus State Community College

- Serving over 40,000 student annually
- Located in Central Ohio
- Campuses in downtown Columbus and Delaware
- 5 Regional Learning Centers
- Offering affordable, quality education and transferable credit

Our Mission: To educate and inspire, providing our students with the opportunity to achieve their goals

- 69% attend part time
- 39% older than 25
- ~37% members of minoritized racial groups
- ~34% receive Pell aid
- ~28% first generation
- Most place into at least one developmental subject
- 60% work over twenty hours per week; 47% provide care to parents, children, or a spouse living with them (CCSSE 2017).

Three Largest Ohio Institutions by Enrollment



Ohio State University:

66,444

Columbus State Community College:

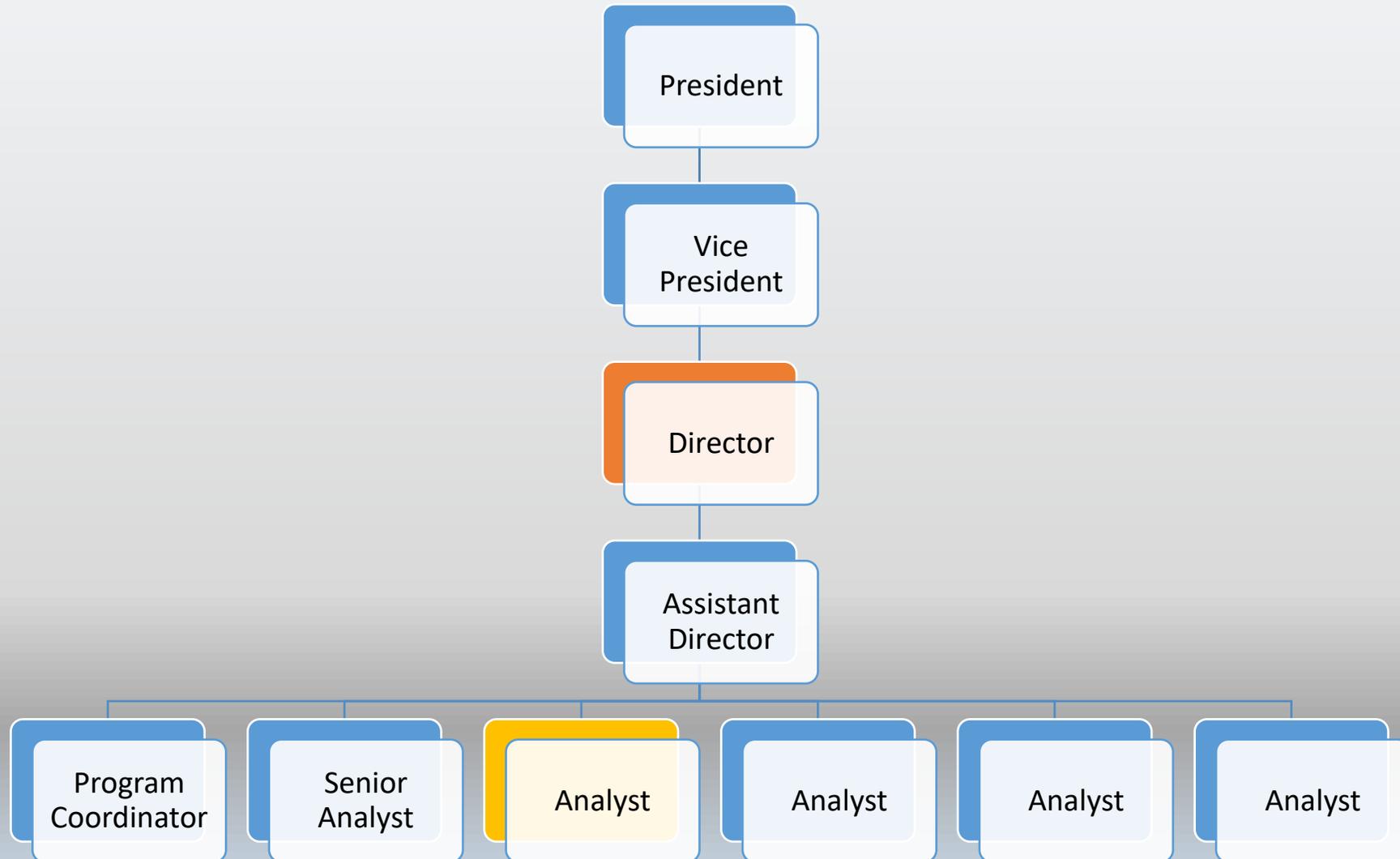
45,332



Cuyahoga Community College:

39,832

Office of Institutional Effectiveness







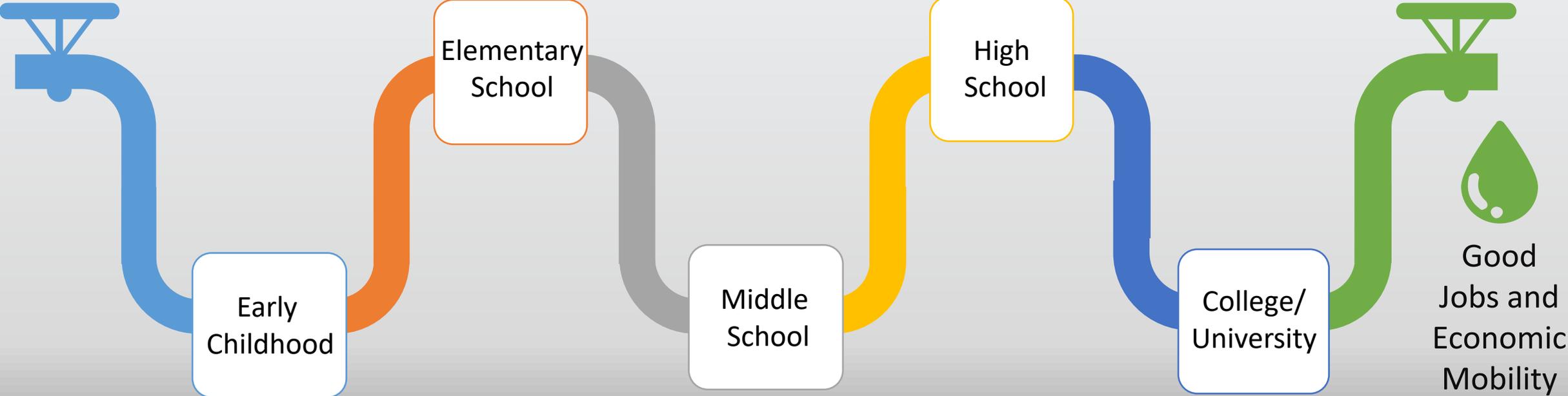


R. B. 1911



Edvard Munch 1893

The Education to Workforce Pipeline



Labor Market Information (LMI)

Includes

- Quantitative & qualitative data
- Analysis related to employment and the workforce (LMI Institute)
 - Unemployment rates
 - Earnings
 - Demographics
 - Job Postings
 - Occupations
 - Labor supply and demand



Research Agenda

Research Questions

- Are graduates employed?
- How much do graduates earn?
- Are graduates working in their field?
- What impact are we having on the region?

Target Populations

- Graduates
- Program Graduates
- FTIC Entering Cohort

Data Points

- Employer
- Wages
- Occupation
- Industry
- Location

Data Types

Unemployment Insurance (UI) Wage Record Data

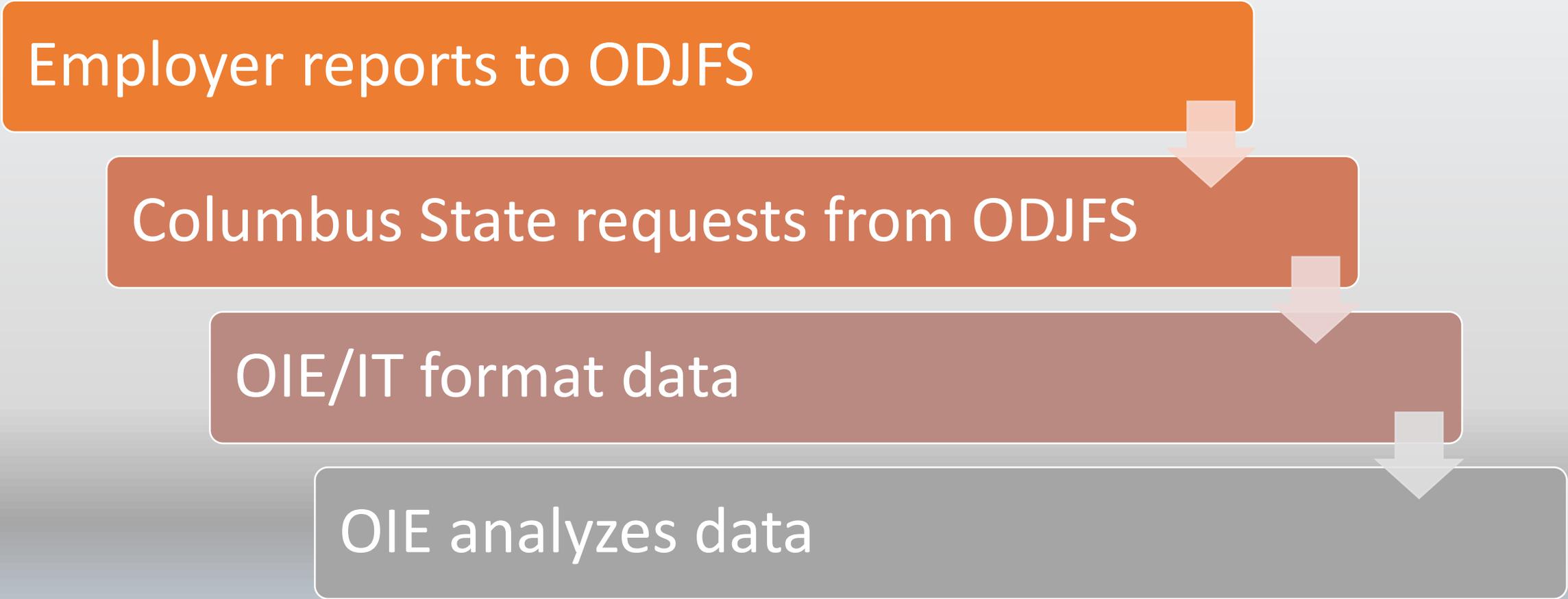
- Employment data
- Submitted by employers every quarter
- Collected by the Ohio Department of Job and Family Services (ODJFS)

Resume Data

- Work and education history
- Posted by individuals on the internet
- Collected by Emsi in the Alumni Outcomes Profiles

UI Wage Record Data Process

Employer reports to ODJFS



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graph TD; A[Employer reports to ODJFS] --> B[Columbus State requests from ODJFS]; B --> C[OIE/IT format data]; C --> D[OIE analyzes data];
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Columbus State requests from ODJFS

OIE/IT format data

OIE analyzes data



Process Questions

- How will my institution transform the data into a useable format?
- Where will my institution store the data?
- What does the data sharing agreement require for data storage, access, security, use, and destruction?
- How will my institution join this data to other institutional data?
- How often will my institution request this data?
- How will previously requested data be updated with new data?

ODJFS: Unemployment Insurance Wage Record Data

Includes

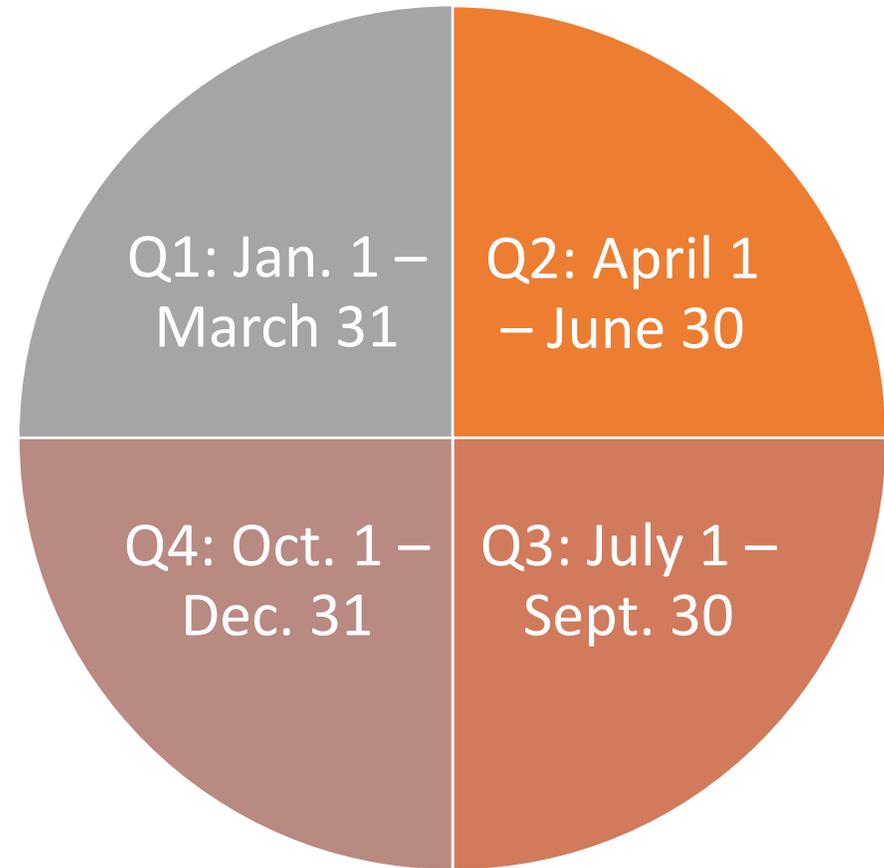
- Weeks Worked
- Wages
- Employer
- Industry

Does not Include

- Unemployed
- Self Employed
- Federal Employees
- Out of State Employees

UI Wage Record Data Requests

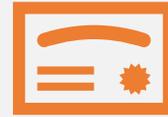
- CSCC requested data for:
 - 2017-18 graduates
 - 2018-19 graduates
 - 2013 AACC Pathways entering cohort



Economic Quarters Included



Basics about the 2017-18 Graduates



4,975 degrees and
certificates awarded to 4,078
unique graduates



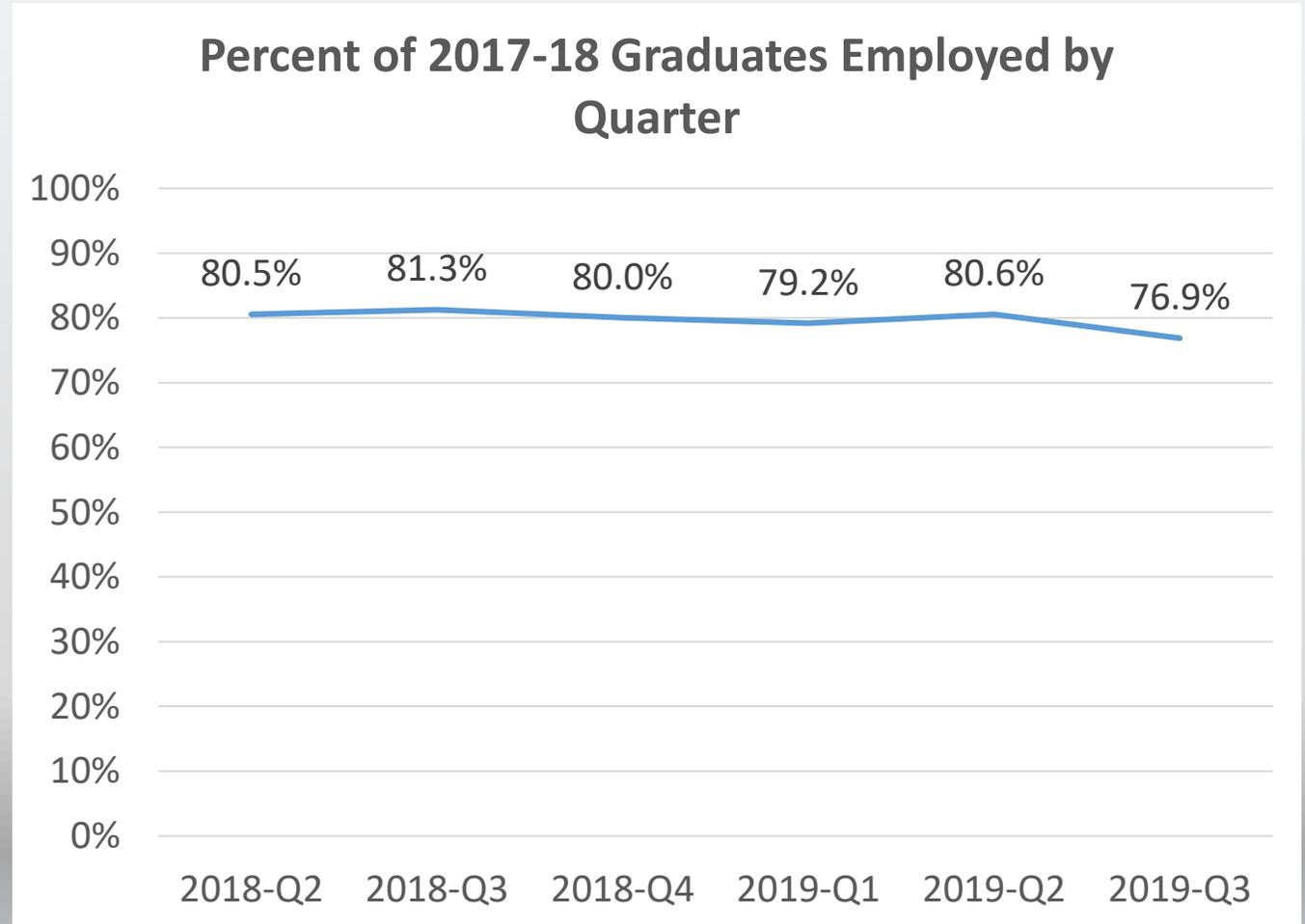
Reflect the diversity of the
College

How many graduates are employed?

About 80% of graduates per quarter work for employers who report to ODJFS

Graduates were employed while they were enrolled

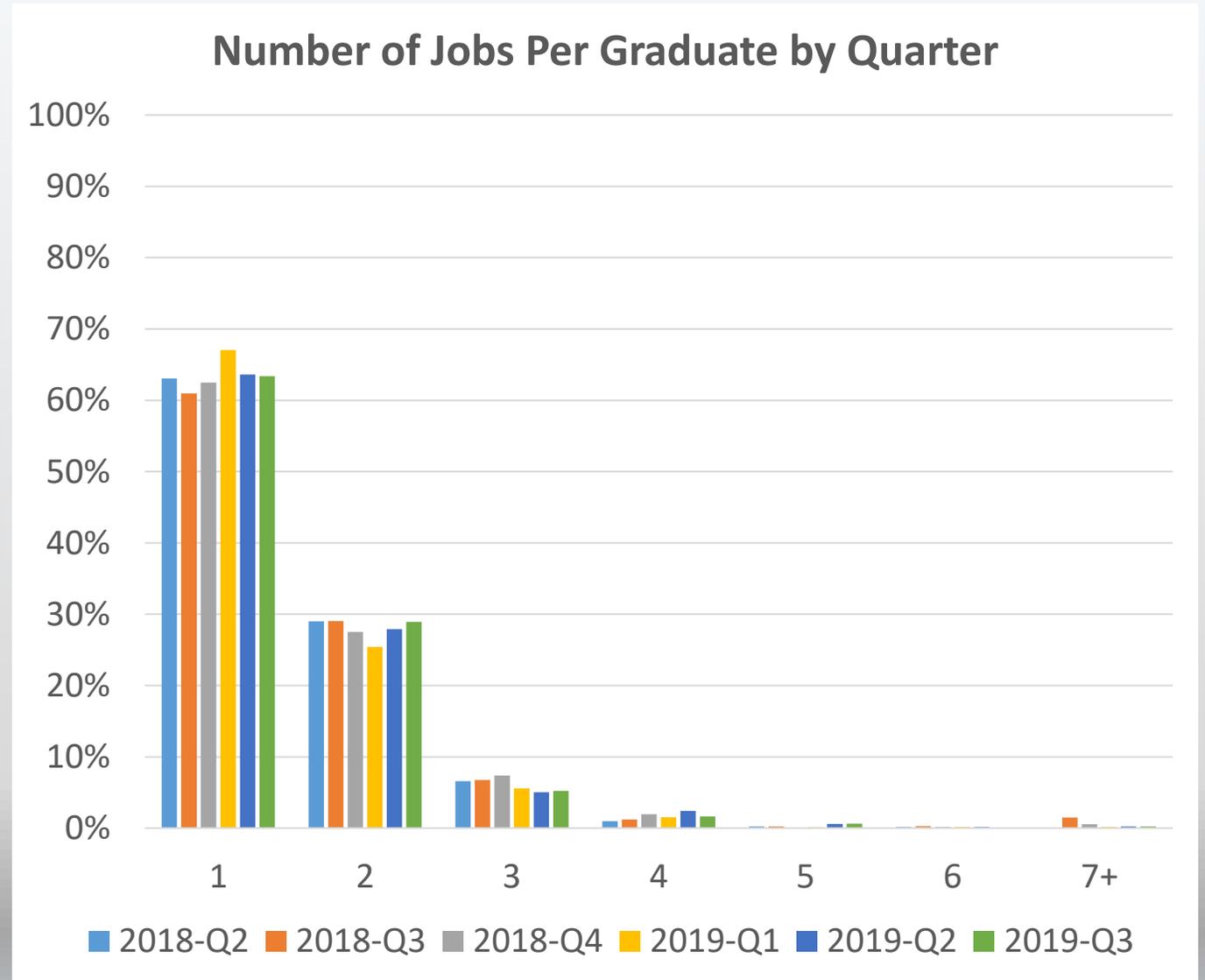
Decrease in Q3 of 2019 is the result of missing data for an employer of CSCC grads



Sources: Ohio Department of Job and Family Services Unemployment Insurance Wage Records; Columbus State Community College Office of Institutional Effectiveness, Enrollment Data

How many jobs do graduates have?

- **1 job**
 - Between 61% and 67% of grads
- **2 jobs**
 - 25%-29% of grads
- **3 jobs**
 - 5% - 7% of grads



Sources: Ohio Department of Job and Family Services Unemployment Insurance Wage Records; Columbus State Community College Office of Institutional Effectiveness, Enrollment Data

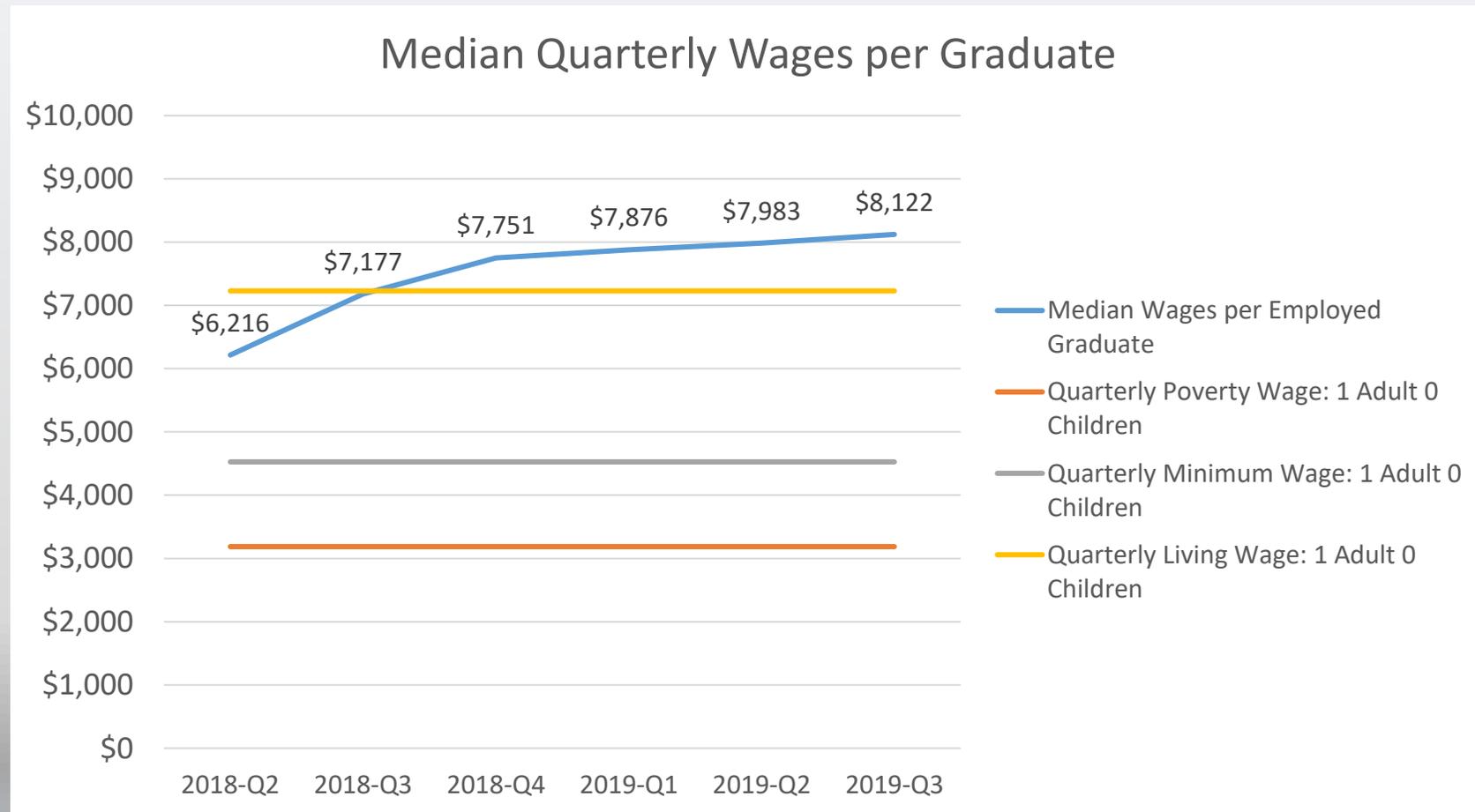
Columbus MSA Living Wage

	1 ADULT			
	0 Children	1 Child	2 Children	3 Children
Living Wage	\$13.90	\$29.99	\$38.26	\$50.29
Poverty Wage	\$6.13	\$8.29	\$10.44	\$12.60
Minimum Wage	\$8.70	\$8.70	\$8.70	\$8.70

- Living wage
 - Hourly rate individuals must earn to support themselves/family
- Poverty threshold
 - Defined by the US Department of Health and Human Services
- Assumptions
 - Adults working full-time
- Benchmarking
 - This doesn't reflect every student's reality

Source: Glasmeier, Amy K. Living Wage Calculator. 2020. Massachusetts Institute of Technology. livingwage.mit.edu

Graduates' earnings increase in every quarter after spring graduation



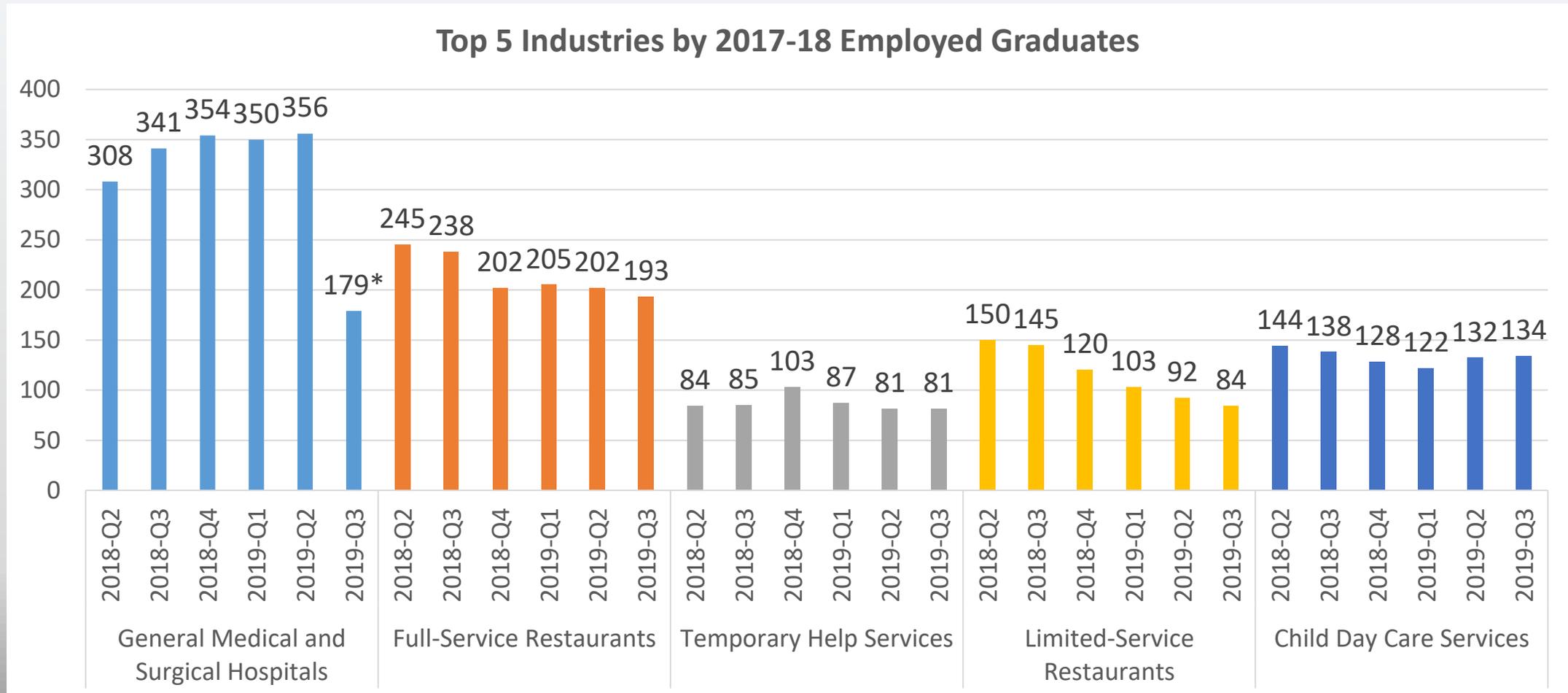
Sources: Ohio Department of Job and Family Services Unemployment Insurance Wage Records; Columbus State Community College Office of Institutional Effectiveness, Enrollment Data; Glasmeier, Amy K. Living Wage Calculator (2020) Massachusetts Institute of Technology, livingwage.mit.edu

Median Quarterly Wages increased 30.7% from Q2 2018 to Q3 2019

Year - Quarter	Median Quarterly Wages per Employed Graduate	Percent Change from Previous Quarter
2018 – Quarter 2	\$6,216	
2018 – Quarter 3	\$7,177	15.5%
2018 – Quarter 4	\$7,751	8.0%
2019 – Quarter 1	\$7,876	1.6%
2019 – Quarter 2	\$7,983	1.4%
2019 – Quarter 3	\$8,122	1.7%

Sources: Ohio Department of Job and Family Services Unemployment Insurance Wage Records; Columbus State Community College Office of Institutional Effectiveness, Enrollment Data

What industries are supported by 2017-18 grads?



Sources: Ohio Department of Job and Family Services Unemployment Insurance Wage Records; Columbus State Community College Office of Institutional Effectiveness, Enrollment Data

**This decrease is the result of missing data for an employer of Columbus State graduates in this industry in Quarter 3 of 2019. This is likely underreporting employment in that quarter*

UI Wage Record Strengths

Includes real wages, not estimates

Includes the employer

Includes the industry

Regularly collected and updated

Ability to examine cohorts

Verified CSCC students

Cost efficient

UI Wage Record Challenges

Does not include unemployed, self-employed, federal employees, out of state employees

May systematically underrepresent occupations that lend themselves to self employment

Is only as accurate as the records the employers provide

Does not include under the table wages

Does not include occupations or job titles or hours worked

Only includes addresses for employer headquarters

Restrictions on how data may be shared

Time Intensive

Emsi: Alumni Outcomes Report



CSCC Graduates

- Autumn 2005 to Autumn 2019
- Matched to Emsi's Online Graduate Profiles
- Profiles use resume data scraped from public websites



Emsi: Alumni Outcomes Report

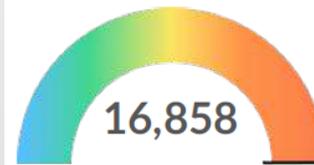
Questions Addressed

- Where do graduates live?
- How much do they earn?
- Are grads working in their field?

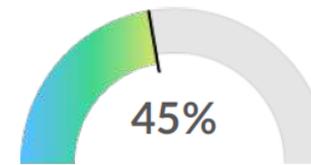
Estimated Wages

- Graduates from 2005-2019
- Estimated based on market value, not actual wage data

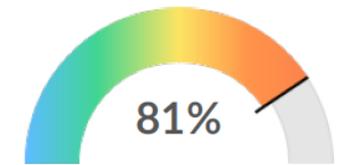
Match Summary



Matched Alumni



Employed in Field



Reside in Region

Earnings

Based on their occupations and where they live, these are estimates of what your alumni could be making at their current ages, and a potential wage based on the average wage for their occupations.

\$49.9K
Estimated Wage

\$63.2K
Potential Wage

Source: All Certificate and Degree Programs report, Emsi Alumni Outcomes Project

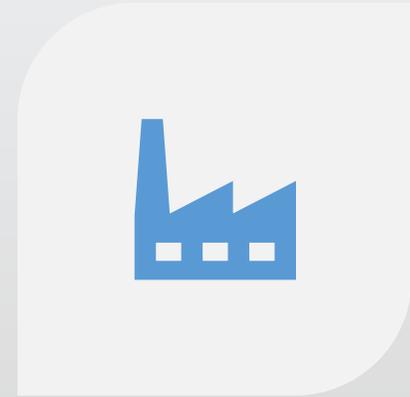
Common Language and Understanding?



HIGHER ED (PROGRAMS –
CIP CODES)



EMPLOYEES (OCCUPATIONS
– SOC CODES)



BUSINESSES (INDUSTRIES –
NAICS CODES)

What companies do graduates work for?

Top Companies

This table shows the top companies where your alumni work based on their most current job.

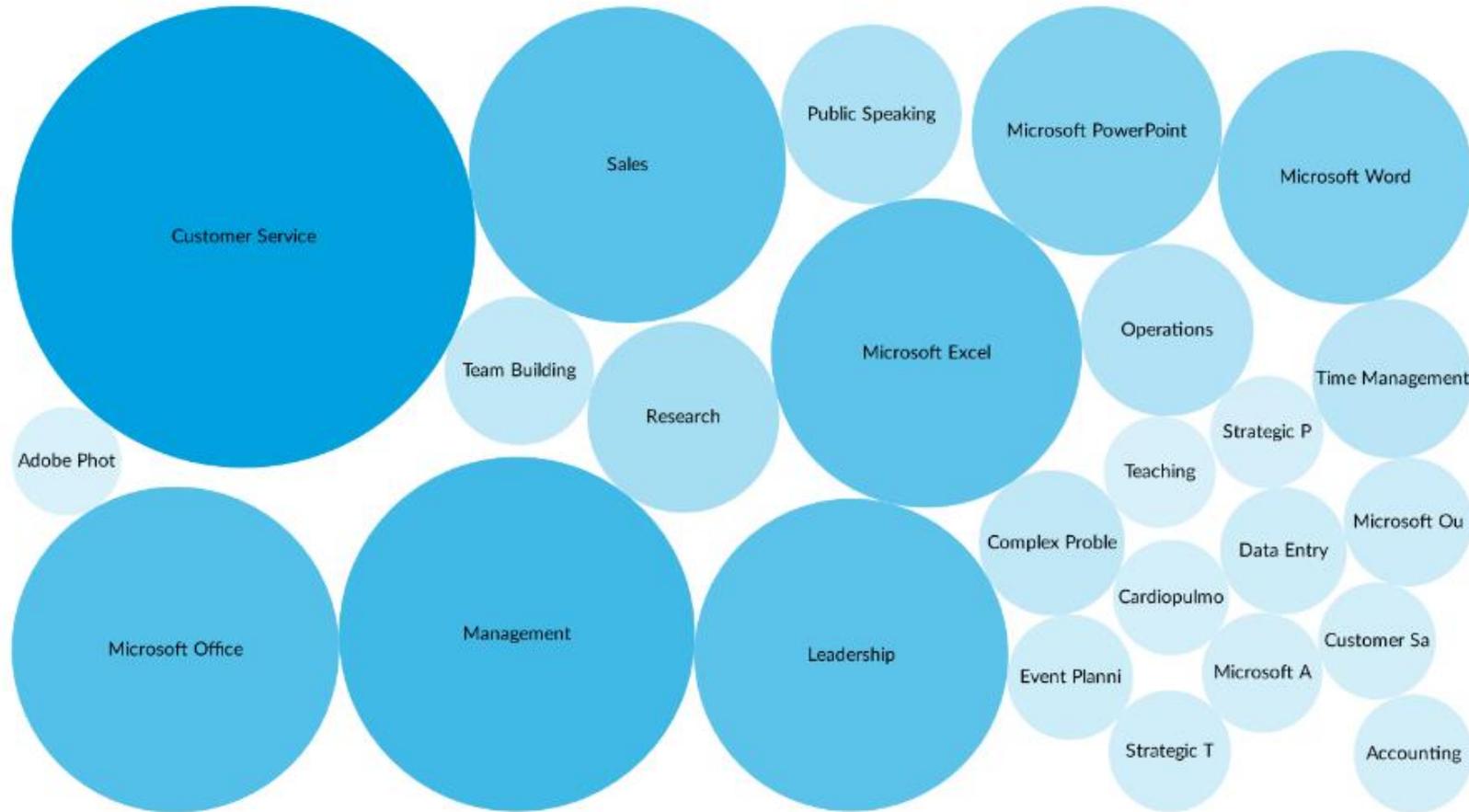
Company	Alumni Profiles	Percent
The Ohio State University	357	2.12%
JPMorgan Chase & Co.	245	1.45%
Columbus State Community College	232	1.38%
Ohiohealth Corporation	196	1.16%
Nationwide Mutual Insurance Company	161	0.96%
Nationwide Children's Hospital	154	0.91%
State of Ohio	90	0.53%
Huntington Bancshares Incorporated	89	0.53%
The Kroger Co	84	0.50%
Mount Carmel Health (inc)	74	0.44%

Source: All Certificate and Degree Programs report, Emsi Alumni Outcomes Project

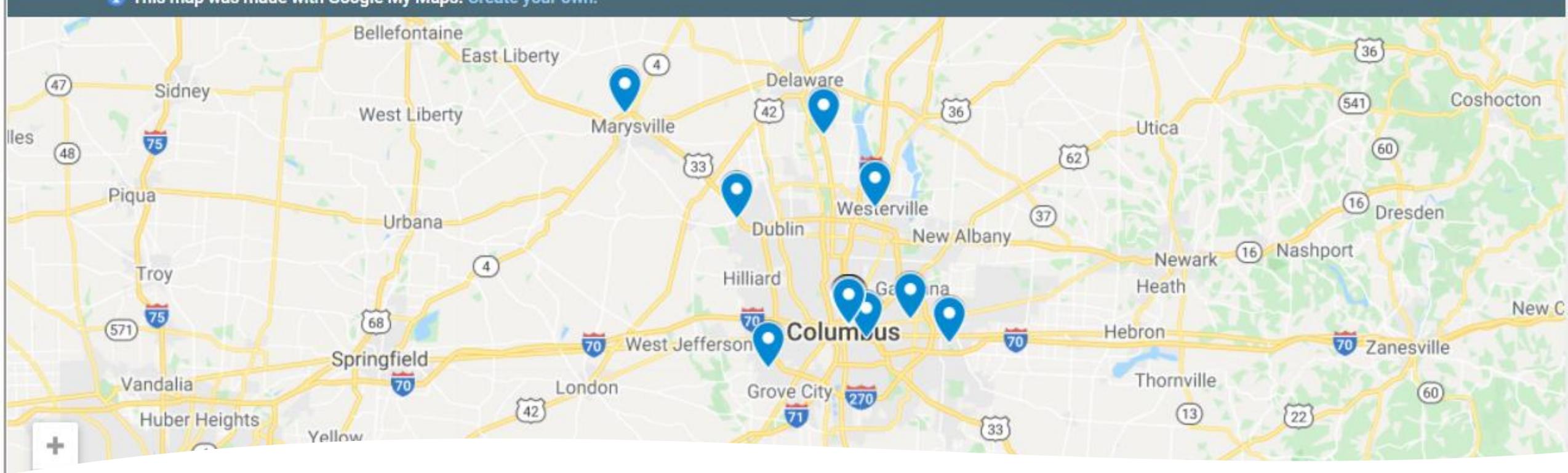
Top Skills

This diagram shows the top skills your alumni have included in their online profiles.

'Customer Service' is the most frequently stated skill, associated with 41% of alumni. This skill is often paired with 'Microsoft Office', 'Management', and 'Sales'.



What skills do graduates say they have?



Where do graduates live?

Ohio

- 89.34% of graduates (15,061) live in state
- 52.52% live in Columbus (8,854)
- Top ten cities were in the Central Ohio region

We are a COMMUNITY College: People who go here, stay here

Source: All Certificate and Degree Programs report, Emsi Alumni Outcomes Project

**Resume
Data
Strengths**

Includes
Job Title

Includes
Occupation

Includes
Location

Includes
Skills

Easily
Shared

Time
Efficient

Resume Data Challenges

Does not include real wage data

Only includes graduates with online resume information

May systematically underrepresent occupations that are less likely to use online recruitment, such as the skilled trades

Is only as updated and accurate as the information posted online

One point in time data; Not looking at a cohort

Review

2 Data Types: UI Wage Record Data and Resume Data

2 Approaches: Longitudinal and Cross-Sectional

2 Target Populations: 2017-18 Grads, 2005-2019 Grads

2 Data Providers: ODJFS and Emsi

An impressionist painting of a landscape. The sky is a vibrant mix of yellow, orange, and blue, suggesting a sunset or sunrise. In the foreground, there's a dark, textured structure, possibly a building or a large pile of earth, rendered in dark brown and black tones. The ground is a mix of orange, red, and blue, with visible brushstrokes. The overall style is expressive and colorful.

What can we know?

Industries

Employers

Occupations

Employed or not (to a degree)

Employed in Field

Reported wages

Locations

What We Can't Know

Full-time/part-time status

Hourly wage/salary

Whether students are working 2+ jobs simultaneously

How do we evaluate our contribution?

Into high wage jobs?

- Can compare students' wages over time
- Can't detail by occupation/job title

Programs?

- Can parse by academic program and credentials
- Can't divulge individual-level data

Underrepresented populations?

- Can explore overall demographics
- Can't disaggregate too far

Project Considerations



Financial Costs



Availability of IR
resources



Privacy Concerns



Data Limitations



Thank you for your participation!

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