What's New in South Carolina Workforce Development

August 8, 2024

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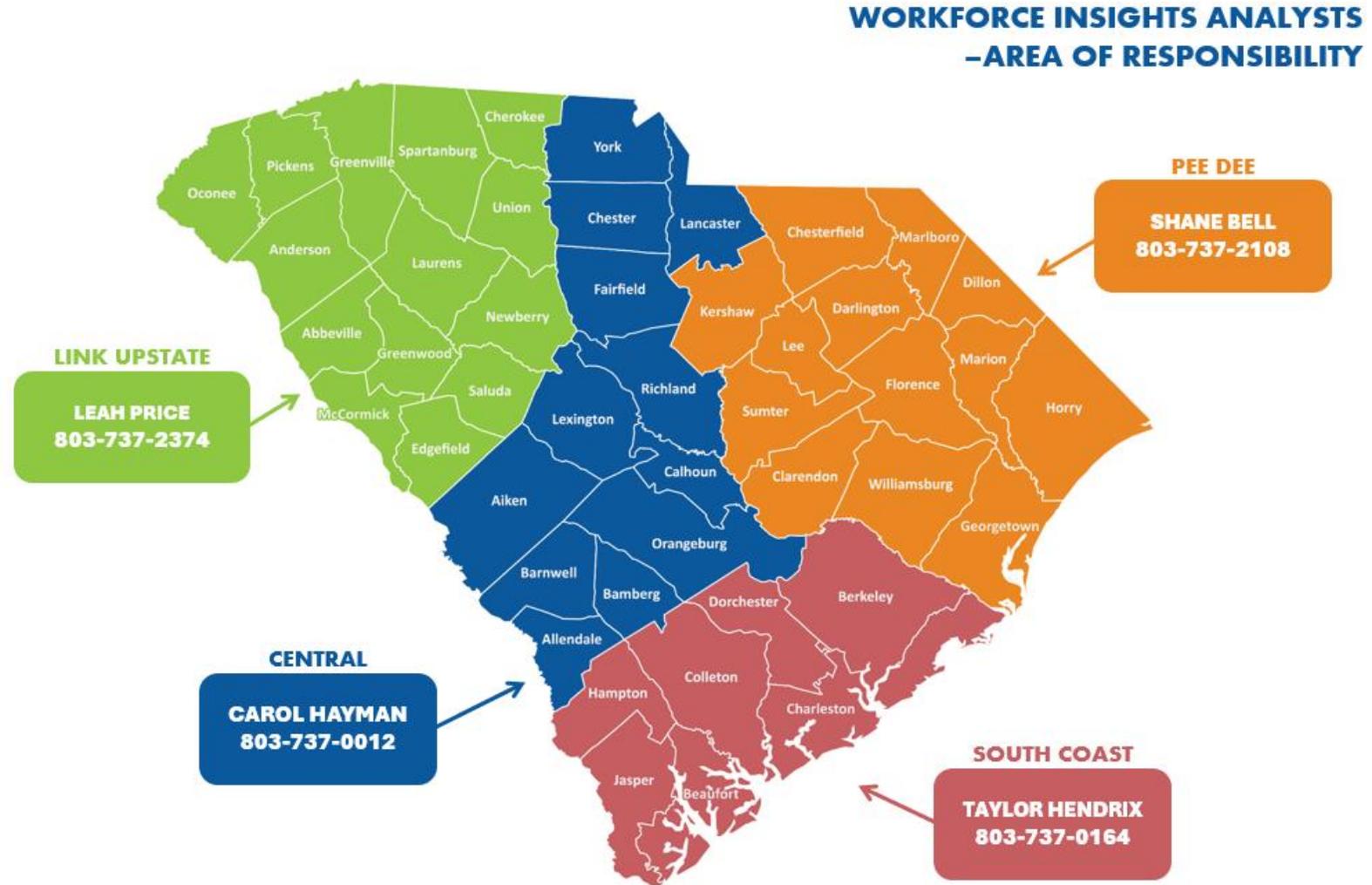
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Agenda

- Introductions

- Act 67 of 2023
  - Return-on-Investment Analysis & Data Sharing
  - BLS Wage Records Pilot
  - Standard Occupation Classification (SOC) Codes and Hours Worked

- Spotlight on the Upper Savannah

- ROI Spotlight
- Nursing Analysis
- Availability of one pagers

- Q&A

Introductions

- Labor Market Information Division Presenters

  - **Justin Williams, Ph.D.** – Analytics Coordinator

  - **Sophia Casler** – Longitudinal Data Analyst

  - **Leah Price** – Workforce Insights Analyst

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Act 67 of 2023

- The Statewide Education and Workforce Development Act
  - Passed June 2023

  - Expanded CCWD membership

  - Outlines specific data-related deliverables including:
    - Return-on-Investment (ROI) analysis of the state's education and workforce programs

    - Supply Gap analysis

    - Collecting Standard Occupational Classification (SOC) codes and hours worked in quarterly unemployment insurance (UI) wage records

ROI Analysis

- Currently working with Commission on Higher Education & State Technical College System to obtain data for analysis on:

  - **CHE** - Five bachelor's degree programs:
    - Business/Logistics
    - Computers/IT
    - Engineering
    - Nursing
    - Teaching

  - **State Tech** - Four programs:
    - Machine Tool & CNC
    - Mechatronics
    - Nursing
    - Welding

BLS Wage Record Pilot
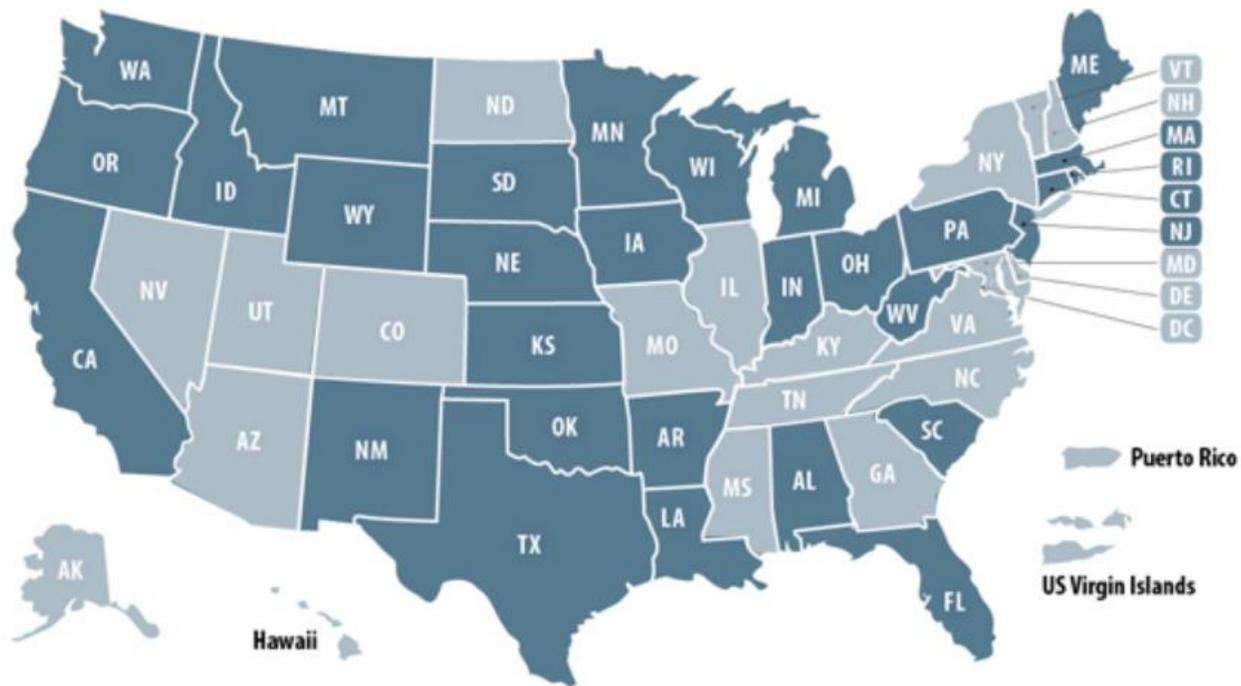
30 states participating including South Carolina
- Only 3 in the Southeast

Future possibility of matching individual records with wages in participating states

DEW working with BLS to develop a wage dashboard using pilot data

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Shareable Wage Dashboard

- DEW was given a grant from the BLS to build a shareable wage dashboard.

  - Goal: To make a dashboard to visualize summary data of wages from participating states.

  - Currently, we are identifying data sources and exploring how best to visualize this data.

  - We will soon be talking to stakeholders about how to show these data and what uses they anticipate for this project.

SOC Codes: Background

- Due to Act 67, we are now collecting SOC codes from every employer in South Carolina.

- The Standard Occupational Classification (SOC) system was developed to allow government agencies and private industry to produce comparable data.

- There are 23 major groups (two-digit) that contain 821 detailed occupations (six-digit).

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SOC Codes: Examples

May 2023 Occupation Profiles

Major groups

- 00-0000 All Occupations
- 11-0000 Management Occupations
- 13-0000 Business and Financial Operations Occupations
- 15-0000 Computer and Mathematical Occupations
- 17-0000 Architecture and Engineering Occupations
- 19-0000 Life, Physical, and Social Science Occupations
- 21-0000 Community and Social Service Occupations
- 23-0000 Legal Occupations
- 25-0000 Educational Instruction and Library Occupations
- 27-0000 Arts, Design, Entertainment, Sports, and Media Occupations
- 29-0000 Healthcare Practitioners and Technical Occupations
- 31-0000 Healthcare Support Occupations
- 33-0000 Protective Service Occupations
- 35-0000 Food Preparation and Serving Related Occupations
- 37-0000 Building and Grounds Cleaning and Maintenance Occupations
- 39-0000 Personal Care and Service Occupations
- 41-0000 Sales and Related Occupations
- 43-0000 Office and Administrative Support Occupations
- 45-0000 Farming, Fishing, and Forestry Occupations
- 47-0000 Construction and Extraction Occupations
- 49-0000 Installation, Maintenance, and Repair Occupations
- 51-0000 Production Occupations
- 53-0000 Transportation and Material Moving Occupations

29-0000 Healthcare Practitioners and Technical Occupations

- 29-0000 Healthcare Practitioners and Technical Occupations
  - 29-1000 Healthcare Diagnosing or Treating Practitioners
    - 29-1010 Chiropractors
      - 29-1011 Chiropractors
    - 29-1020 Dentists
      - 29-1021 Dentists, General
      - 29-1022 Oral and Maxillofacial Surgeons
      - 29-1023 Orthodontists
      - 29-1024 Prosthodontists
      - 29-1029 Dentists, All Other Specialists
    - 29-1030 Dietitians and Nutritionists
      - 29-1031 Dietitians and Nutritionists

Images taken from:
https://www.bls.gov/OES/CURRENT/oes_stru.htm

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SOC Codes: Data acquisition thus far...

- In total, DEW has received 1,568,369 total SOC code inputs attempts from 82,810 different employers in 2024 Q1 UI records as of August 6th. That is 67 percent of the employers that submitted UI wage data. <mark>So far in 2024 Q2 we have received</mark>

- Compared to other states that are collecting SOC code this response rate in our first year is outstanding!

- We are also collecting hours worked by employee, per Act 67.

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SOC Codes: The data cleaning process

- Currently, we are cleaning and validating submissions. With a data set this immense, this has been a significant challenge.

- The first step is to validate that the SOC codes provided are accurate six-digit codes.

- The second step is to assess SOC codes using industry norms.
  - The most challenging step here is to determine how much data manipulation is appropriate to do.

SOC Codes: The future

- When the data set is ready, we will be able to better assess the state's occupational composition and wage distribution. This means we will be able to:

  - Quantify the distribution of careers within a given industry, allowing employers to compare themselves to competitors

  - Inform students and job seekers about wages and career pathways for specific occupations

  - Improve the quality of our supply gap analysis by taking into account a richer picture of available labor

Priority Occupations

- Priority occupations are those jobs which have some combination of many openings, low turnover, high pay and high growth. Defining this is required by Act 67.

- We will be putting out reports detailing what training is required for these careers and career ladders detailing how a student could enter a priority occupation.

Spotlight on the Upper Savannah Workforce Area

Upper Savannah Economic Overview

- Production and Office and Administrative Support are top occupation groups.

- Manufacturing jobs have grown 1.1% annually.

Spotlight Summary

Total - All Industries
Upper Savannah – 2024Q1

EMPLOYMENT

89,439
Regional employment / **164,954,062** in the nation

0.5% ↑
Avg Ann % Change Last 10 Years / **+1.3%** in the U.S.

	Region	Nation

100.0%
% of Total Employment / **100.0%** in the U.S.

WAGES

$47,791
Avg Wages per Worker / **$70,857** in the nation

3.6% ↑
Avg Ann % Change Last 10 Years / **+3.7%** in the U.S.

TOP OCCUPATION GROUPS

Production **15.8%**
Office and Administrative Support **10.6%**
Transportation and Material Moving **9.1%**
Food Preparation and Serving Related **7.1%**
All Others **50.0%**

TOP INDUSTRIES

Avg Ann % Change in Employment, Last 10 Years

1.1 % ↑
Manufacturing

0.9 % ↑
Health Care and Social Assistance

0.5 % ↑
Retail Trade

Top Industries

2-Digit Industry	Empl	Avg Ann Wages	LQ	5yr History	Annual Demand	Forecast Ann Growth
Manufacturing	23,654	$59,829	3.30		2,433	0.2%
Health Care and Social Assistance	12,713	$52,935	0.97		1,337	0.7%
Retail Trade	8,501	$29,864	0.96		1,157	-0.1%
Educational Services	7,304	$43,579	1.02		711	0.3%
Accommodation and Food Services	6,244	$18,036	0.80		1,125	0.3%
Public Administration	5,236	$47,534	1.27		508	0.5%
Construction	4,387	$50,109	0.82		400	0.5%
Administrative and Support and Waste Management and Remediation Services	4,235	$33,472	0.76		510	0.6%
Other Services (except Public Administration)	3,653	$28,945	0.97		440	0.6%
Agriculture, Forestry, Fishing and Hunting	2,856	$37,498	2.58		346	0.2%
Remaining Component Industries	10,664	$58,911	0.51		1,125	0.5%
Total - All Industries	89,446	$47,533	1.00		10,100	0.4%

Unemployment in the Region

Annual Unemployment Rate (Unadjusted)

Trends
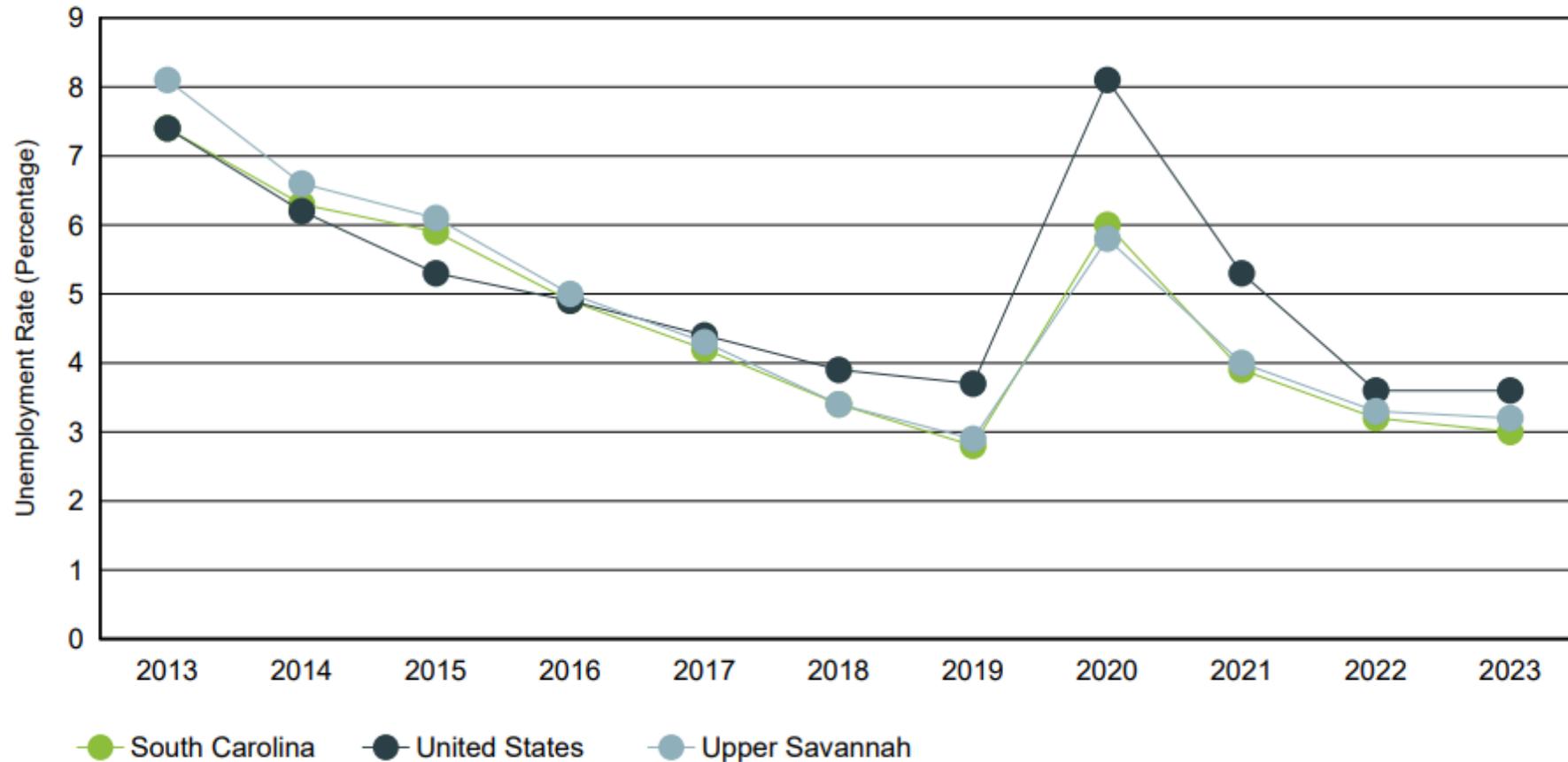
Industry Changes for 2030

Upper Savannah Industry	2020 Estimated Employment	2030 Projected Employment	Change	Percent Change	Annual Percent
Total All Industries	86,880	90,203	3,323	3.82	0.38
Health Care and Social Assistance	9,801	12,504	2,703	27.58	2.47
Arts, Entertainment, and Recreation	784	1,483	699	89.16	6.58
Administrative and Support and Waste Management and Remediat	5,030	5,496	466	9.26	0.89
Accommodation and Food Services	5,406	5,857	451	8.34	0.80
Finance and Insurance	1,180	1,404	224	18.98	1.75
Transportation and Warehousing	2,245	2,452	207	9.22	0.89
Information	374	500	126	33.69	2.95
Retail Trade	7,963	8,070	107	1.34	0.13

South Carolina Nursing Graduates

Data and Methodology

- There were 21,715 unique associate's degree nursing graduates across the state technical college system from 2004 to 2021.
  - 1,405 were Piedmont Technical College graduates.

- These individuals were matched with wage records one, five, and ten years after graduation.
  - These do not include students who work outside of the state, are self-employed, work as independent contractors, or work for the federal government or military

Graduates Found in Wage Records

	1 Year	5 Years	10 Years
Blue bar	89.8%	81.7%	78.5%
All State Tech graduates (red)	81.2%	70.2%	63.4%
All higher education graduates (black)	63.9%	48.5%	43.4%

Legend:
- All State Tech graduates (red line)
- All higher education graduates (black line)
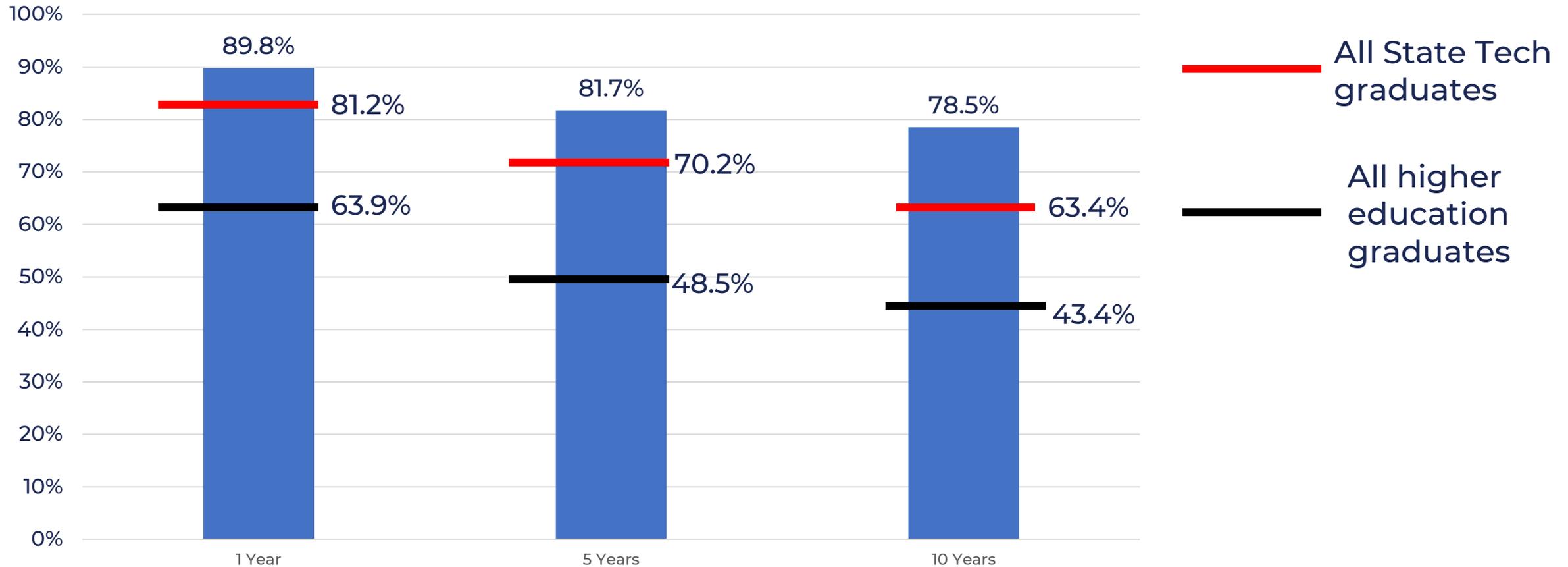
Note: These do not include graduates who are self-employed, employed out-of-state, work as independent contractors, or who work for the federal government or military

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Graduates Found in Wage Records by Residency at Time of Enrollment

Legend: In-State, Out-of-State

	1 Year	5 Years	10 Years
In-State	93.6%	85.8%	81.1%
Out-of-State	40.0%	18.5%	16.7%

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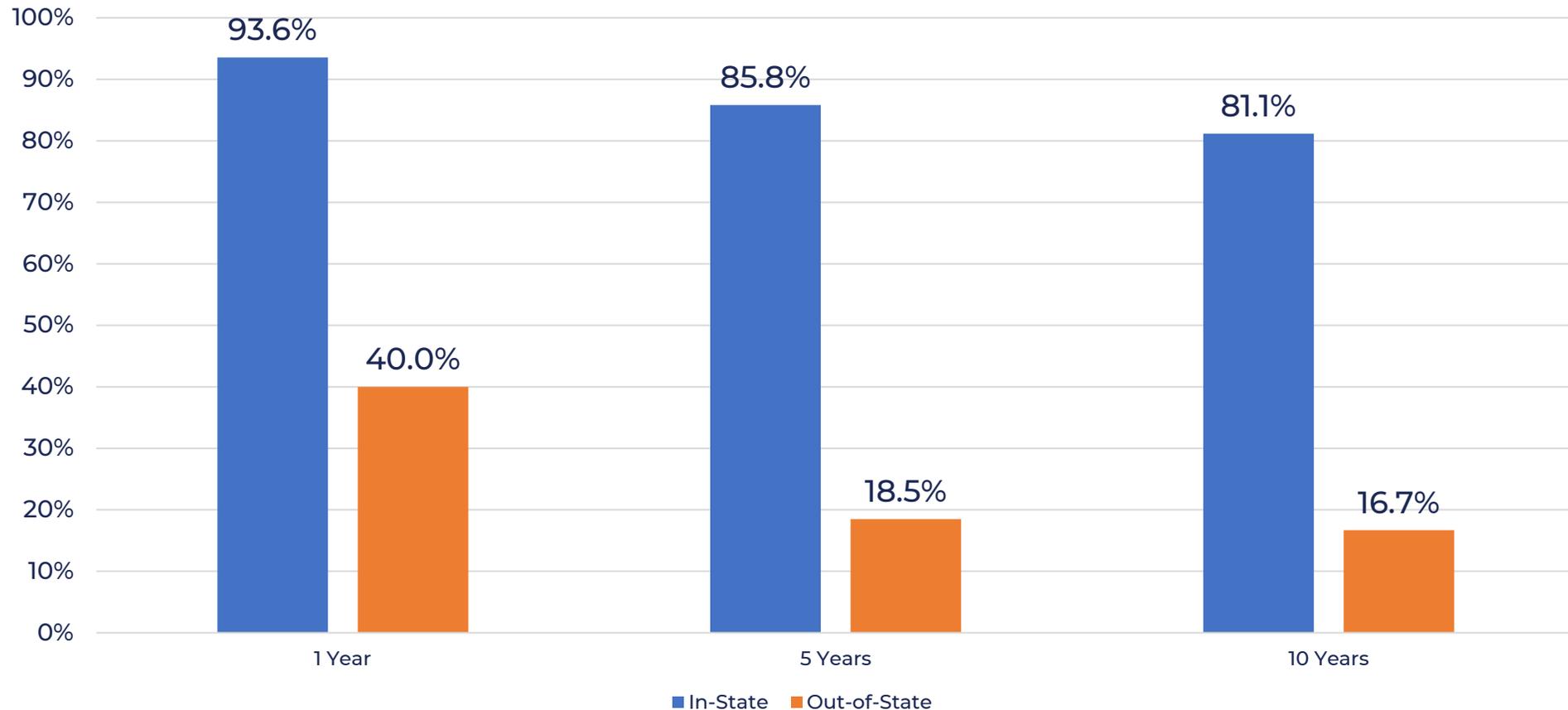
Note: Over 90% of graduates are in-state

Industry of Employment

Percent found in healthcare and social assistance industry
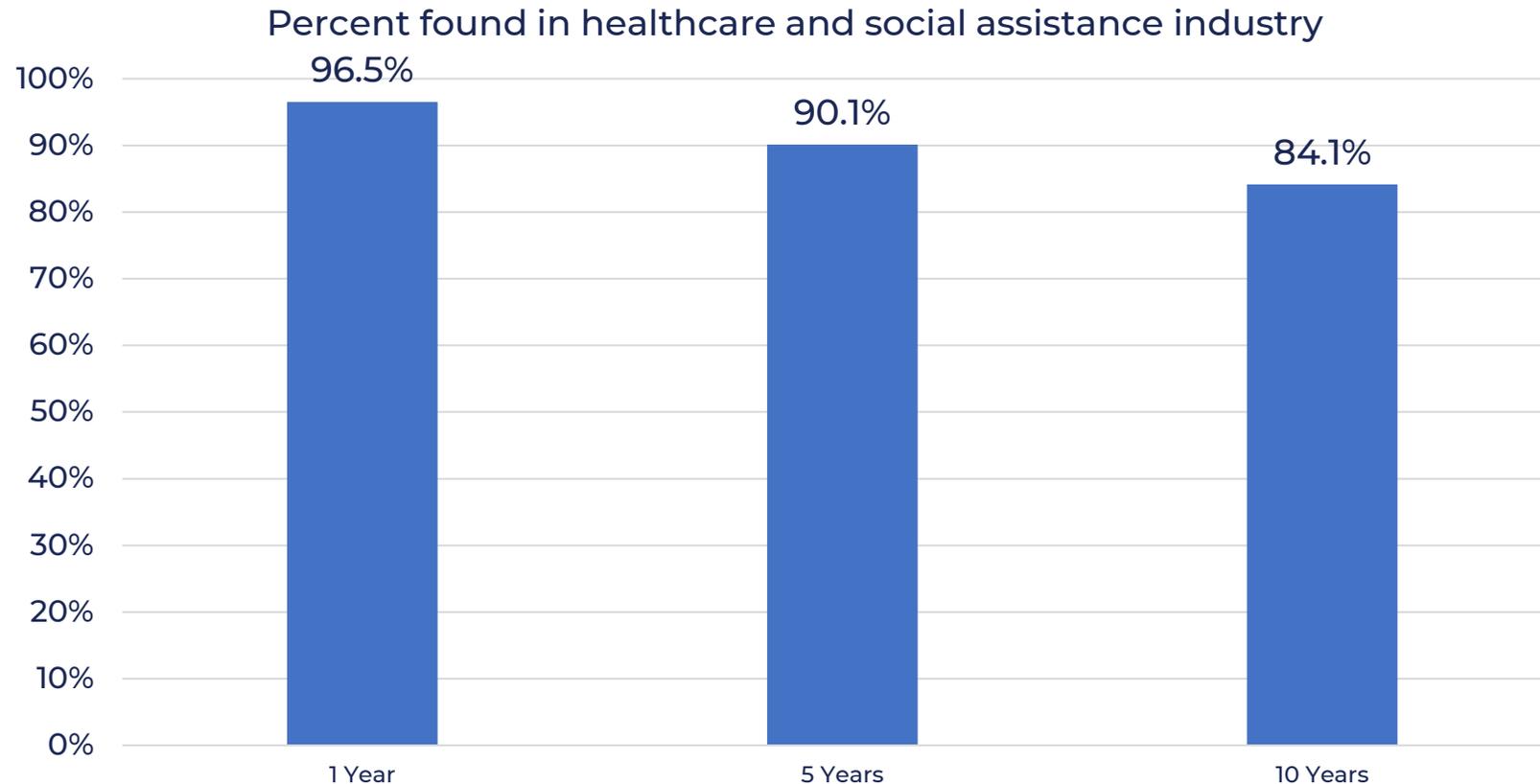
- Graduates not found in Health Care and Social Assistance are most likely to be found in the Administrative and Support and Waste Management and Remediation Services* industry, Educational Services industry, and Finance and Insurance industry

*Includes Temp employees

Median Earnings Over Time

Chart showing Median Earnings Over Time:
- Prior to Enrollment: $35,933
- 1 Year: $60,849
- 5 Years: $71,221
- 10 Years: $76,143
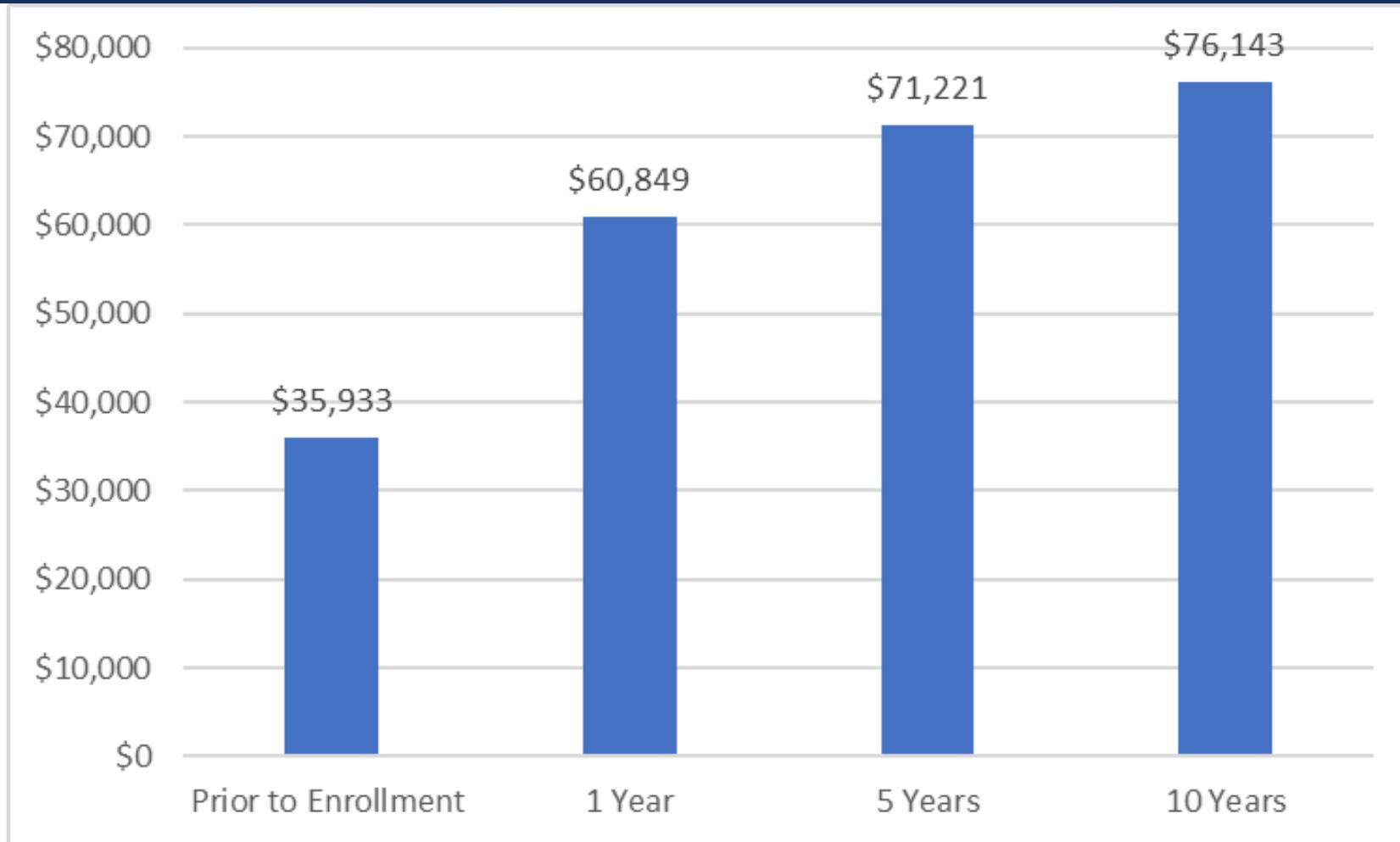
Considerations when Calculating ROI

- Lack of information about student-specific financial aid (scholarships, loans, and grants)

- Opportunity costs not known

- Non-economic benefits of graduation difficult to quantify (social capital etc.)

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Cost of Degree and ROI

- **Cost****: $10,000

- **Wage Premium*****: $23,000/Year

- **Time to Breakeven (Post-Completion):** 5 Months

Chart: Months to Breakeven

- Overall: 5
- Out-of-State: 6
- In-State: 5

X-axis: Months to Breakeven (0, 2, 4, 6, 8)
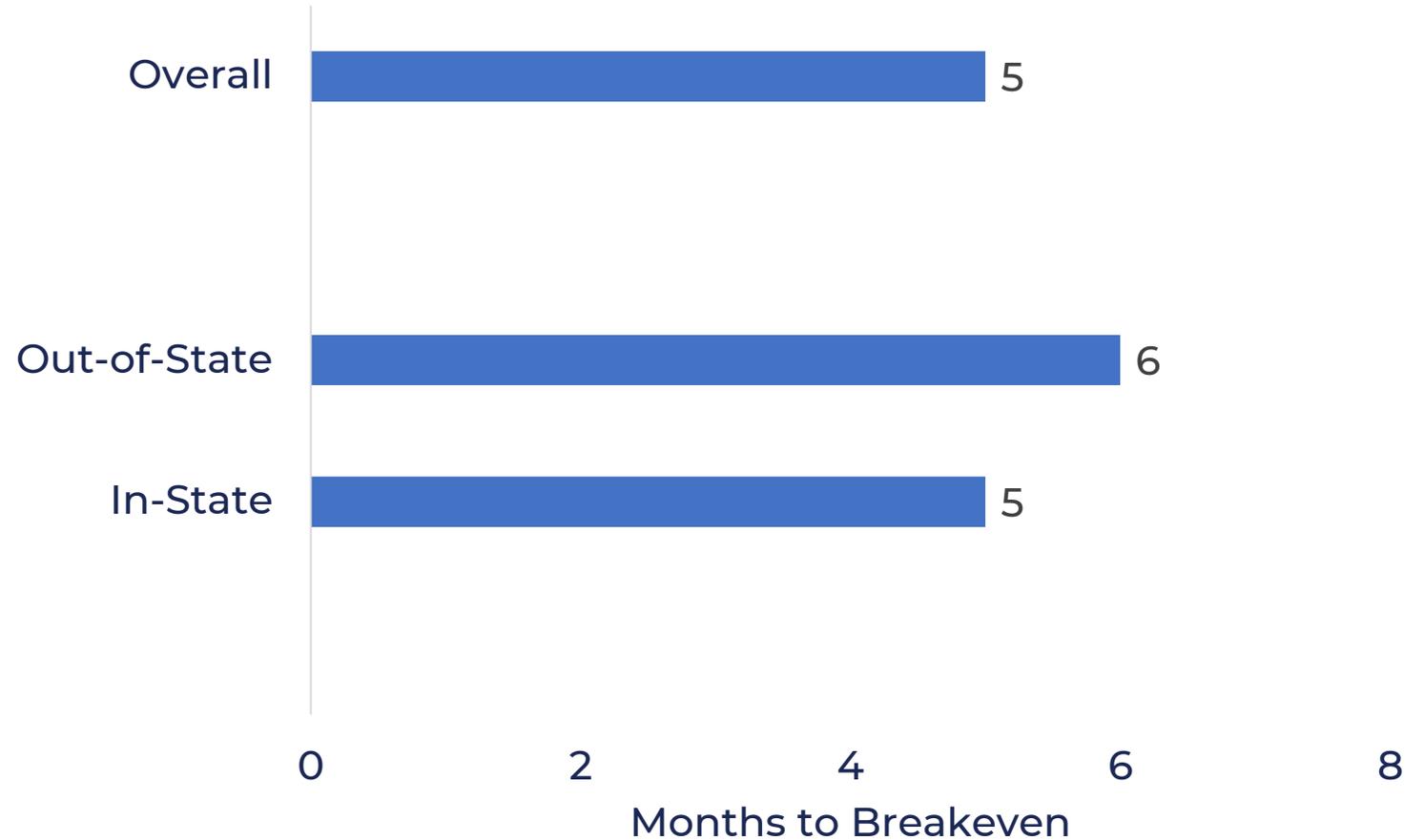
*Includes all individuals who obtained an associate degree, regardless of if they receive further higher education
**Calculated by a weighted average of published in-state tuition costs for institutions by graduate frequency in the data
***Additional wages compared to those of a high school graduate (median)

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Job Postings – Specific Occupations

- Past 12 Months: **92.5%** of the **33,500 job postings** open to bachelor's degree holders require only an associate degree

- Top 3 in-demand nursing occupations
    1. Registered Nurses (~71%)
    2. Licensed Practical and Licensed Vocational Nurses (~16%)
    3. Nurse Practitioners (~5%)

- Registered Nursing is the nation's most in-demand occupation and the state's second* most in-demand occupation

*The most in-demand occupation in South Carolina is First-Line Supervisors of Retail Sales Workers
Note: These postings include all job openings for nurses across educational attainment levels

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One Pager Examples

Questions?

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