Short-term Credentials in the Labor Market

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Community Development
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Federal Reserve Bank of Dallas

The views expressed are my own and do not necessarily reflect official positions of the Federal Reserve System.

Introduction

- Senior advisor in Community Development
- Based in Houston
- At the Dallas Fed since 2018
- Areas of expertise:
  - Artificial intelligence
  - Opportunity youth

Overview

- Background
  - What are short-term credentials?
  - State of higher education
  - Texas context
- Research Questions
- Data Source
- Results
- Q&A

Background

What Are Short-term Credentials?

Our definition

A credential or award you receive after completing a program that requires less than 2 years of study

Examples of short-term credentials

- Licenses (ex. teacher's or nurse's license)
- Certification (ex. forklift driving; food safety)
- Certificate (ex. business analytics badge)

State of Higher Education

- It's still true that "the more you learn, the more you earn"

- Recent trends in higher education present challenges:
  - Rising costs and increased student debt
  - Fluctuations in enrollment during and after pandemic
  - Changes in public's perception about college and its value

- Researchers and policymakers alike have expressed concern about these trends

- One potential solution? Short-term credentials

Texas Context: House Bill 8

- Passed during 2023 legislative session; went into effect September 2023

- Prior to HB8, state funding was enrollment-based
  - Now under HB8, state funding is **outcome-based**

- Outcomes included transfers, degrees conferred, or credentials awarded

- This explicit reward for certificates and credentials awarded is new and unchartered territory

What We Already Know

Short-term credentials are understudied compared with postsecondary degrees

Short-term credentials are hard to study; evidence has been mixed

What We Want to Know

- One of the most important factors in determining value of STC’s is employers’ perceptions of them

- **Our research questions:**

  - How often do employers seek job candidates with STC’s?

  - If and when they do, do employers pay credential holders higher wages than they otherwise would have received?

Data Source

Lightcast Job Posting Data

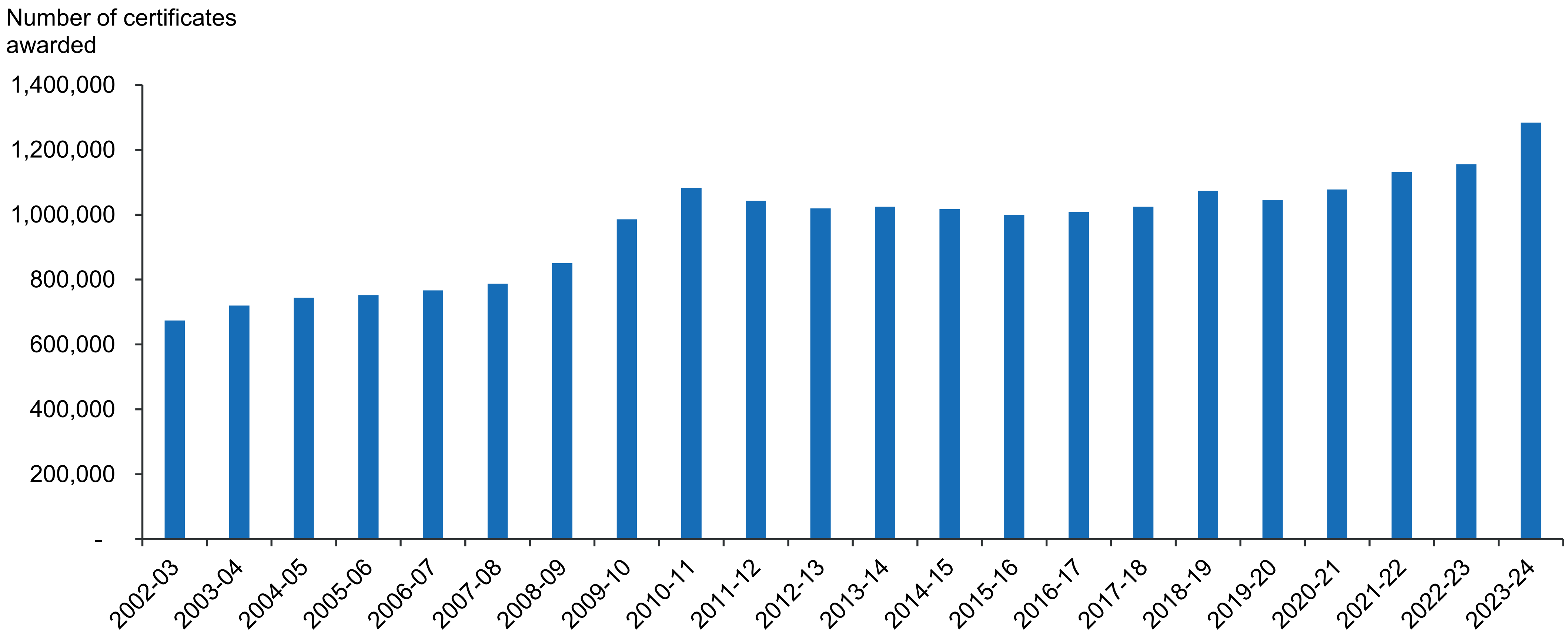
- Bots scrape internet job postings from more than 65,000 sources daily, including job boards, company websites, and other sources

- Dataset includes information on
  - Job titles and responsibilities
  - Job requirements/preferences
    - Degrees (bachelor's, associate, high school)
    - Certification
  - ***Advertised*** salary

- All results are based on U.S. data

Results: Supply & Demand

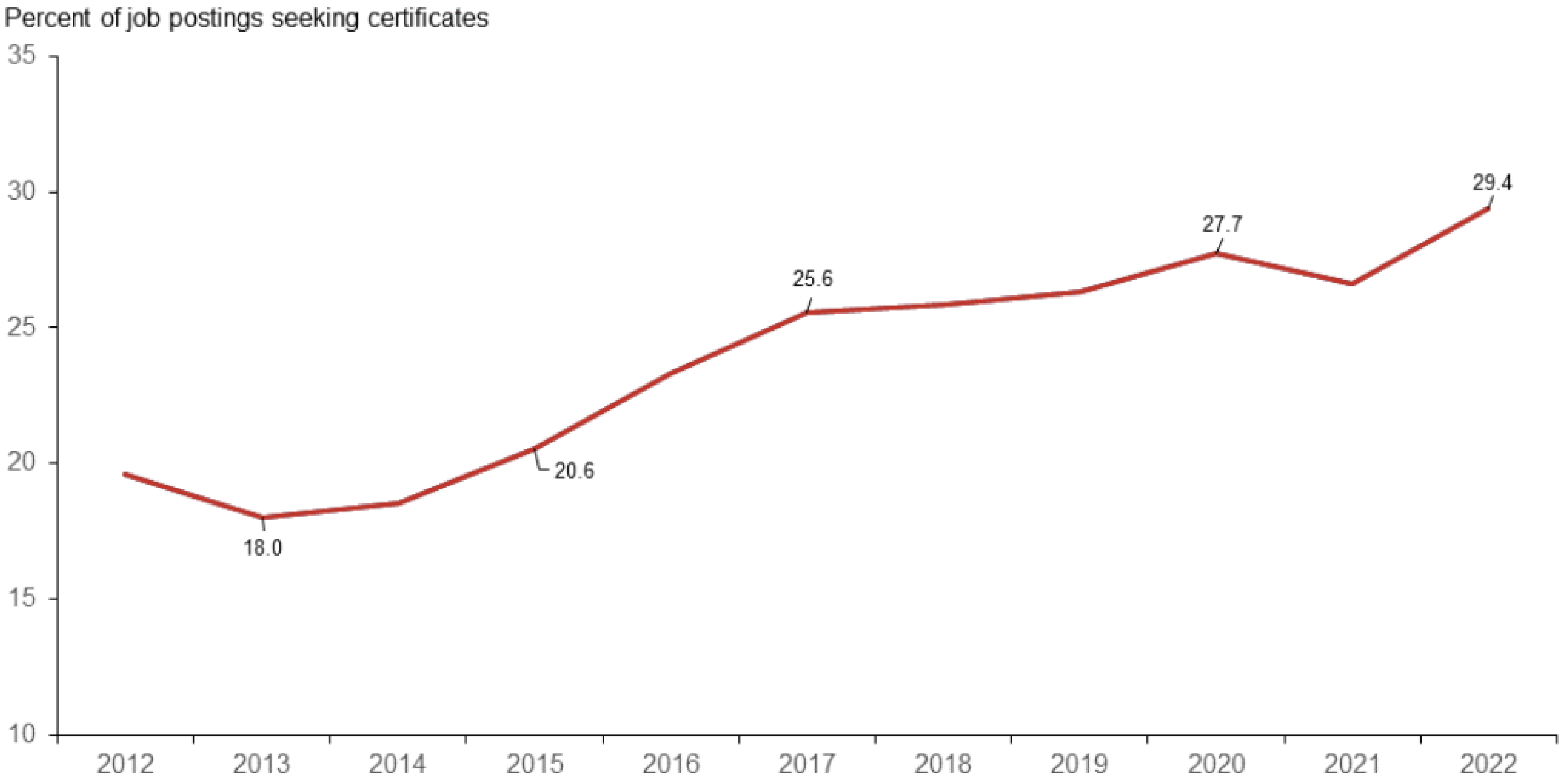
Growing number of certificates granted by higher education



NOTE: Data collected from Title IV institutions in the United States.

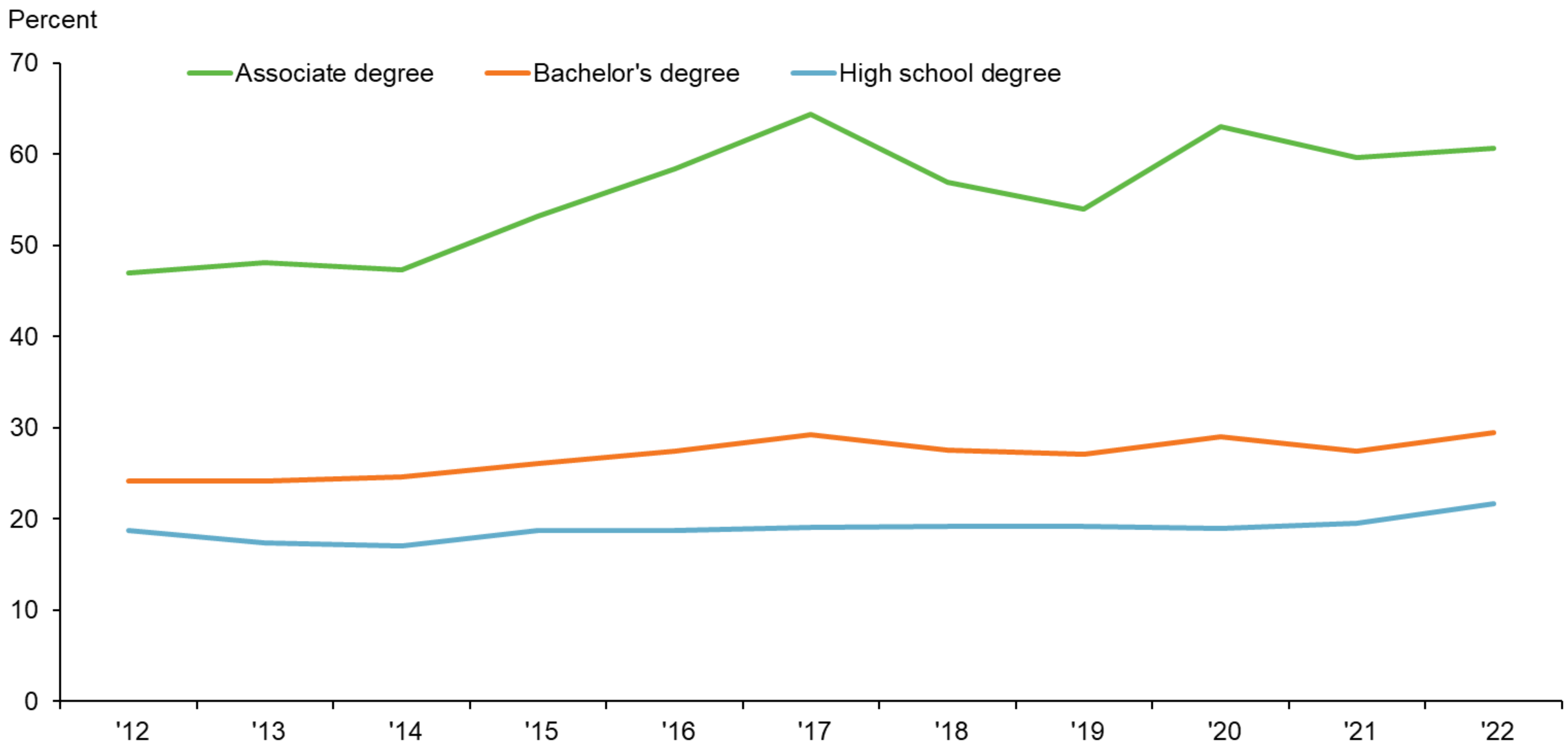
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Completions component final data (2002-03 to 2022-23) and provisional data (2023-24).

More Job Postings Seek Certificates



SOURCES: Lightcast; authors' calculations.

Jobs Requiring Associate Degree Most Likely to Seek Certification



NOTE: Data show the percentage of jobs that require certain degrees and also ask for certifications.
SOURCES: Lightcast; authors' calculations.

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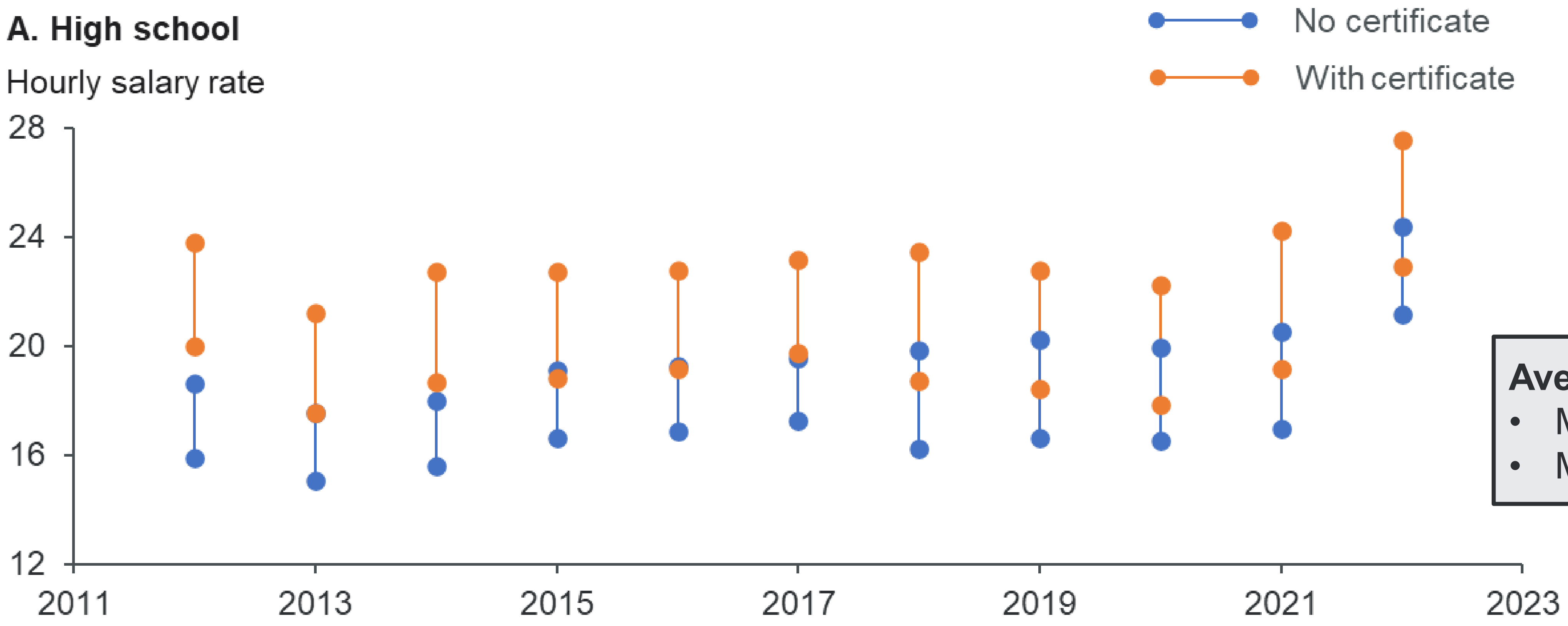
Results: Wages

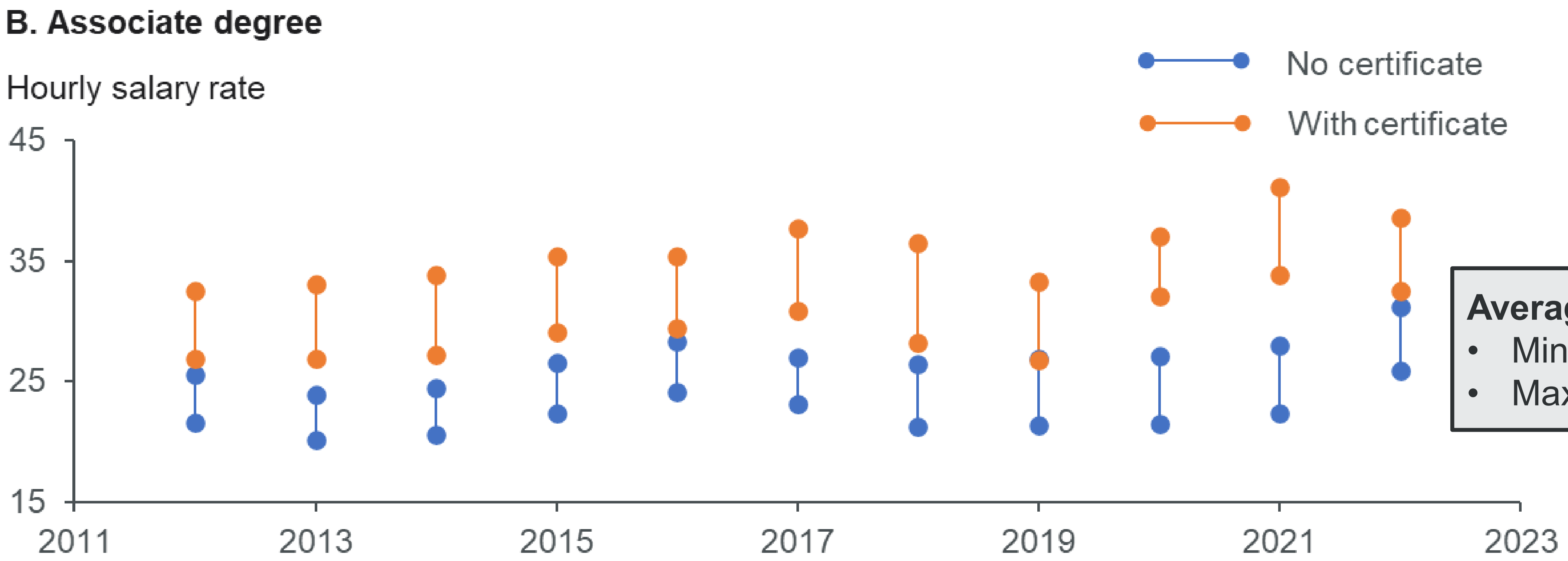
Wages Offered in Ads Seeking High School Degrees



Average bump
- Minimum: $2
- Maximum: $4

SOURCES: Lightcast; authors' calculations.

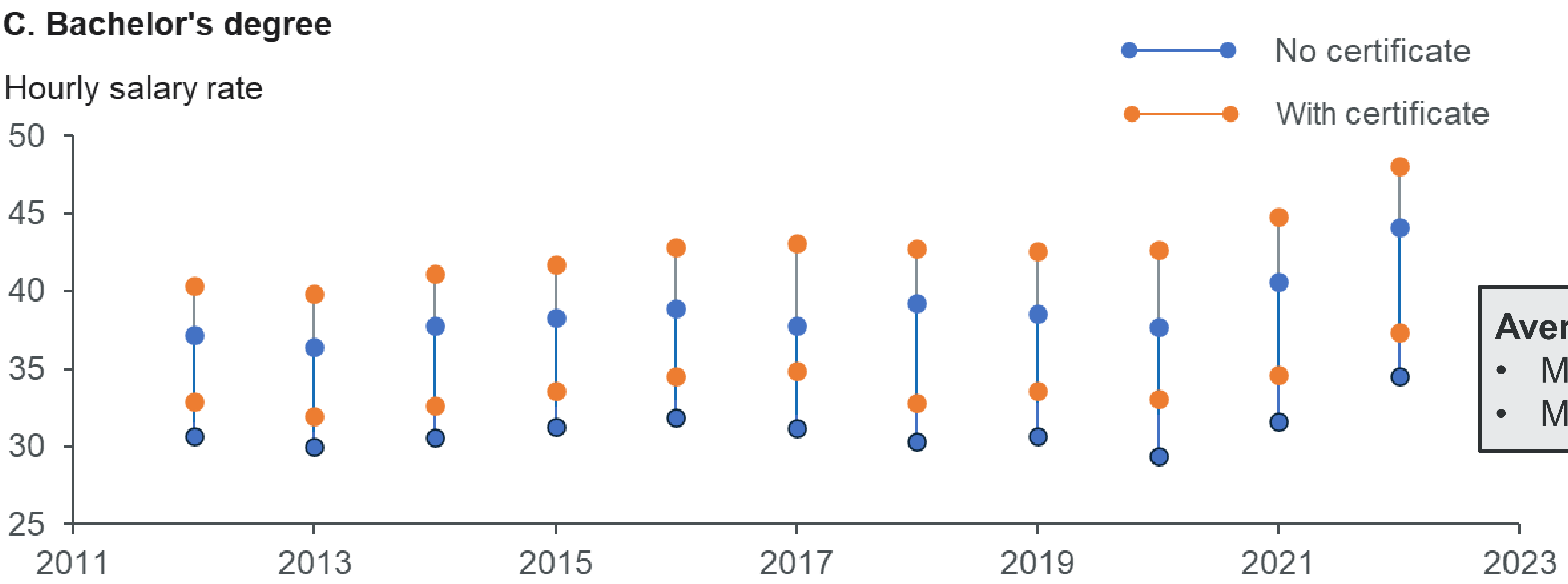
Wages Offered in Ads Seeking Associate Degrees



Average bump
- Minimum: $7
- Maximum: $9

SOURCES: Lightcast; authors' calculations.

Wages Offered in Ads Seeking Bachelor's Degrees



Average bump
- Minimum: $3
- Maximum: $4

SOURCES: Lightcast; authors' calculations.

Comparison with Census Data

- Wage gap could be due to differences in skills and experience
  - Some certifications are only available after years on the job
- We used Census data to address this
  - Controlled for age, gender, race and ethnicity, marital status, education, and years of experience
- Average annual wage difference for credential holders:
  - **$5,000 more** for *both* associate and high school degree holders
  - **$2,600 more** for bachelor's degree holders

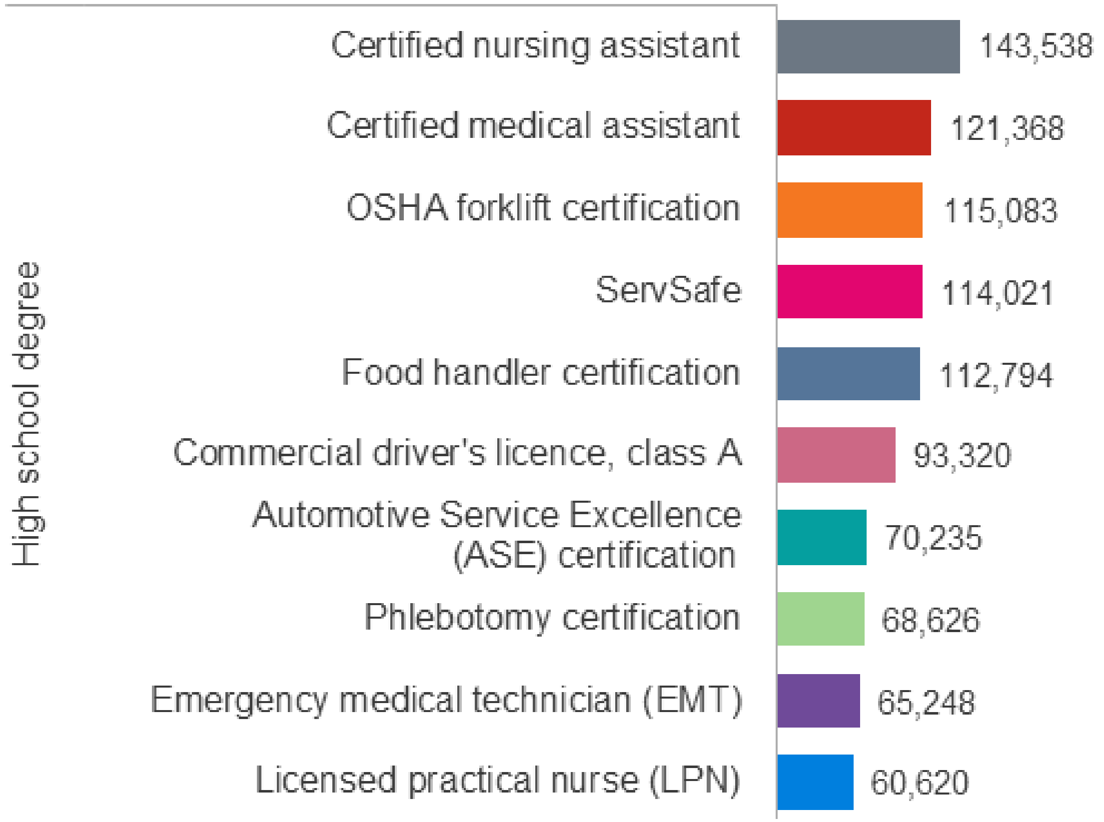
- Conclusion: Credential wage bump does exist

Results: Occupational Highlights

Identifying Credentials of Value

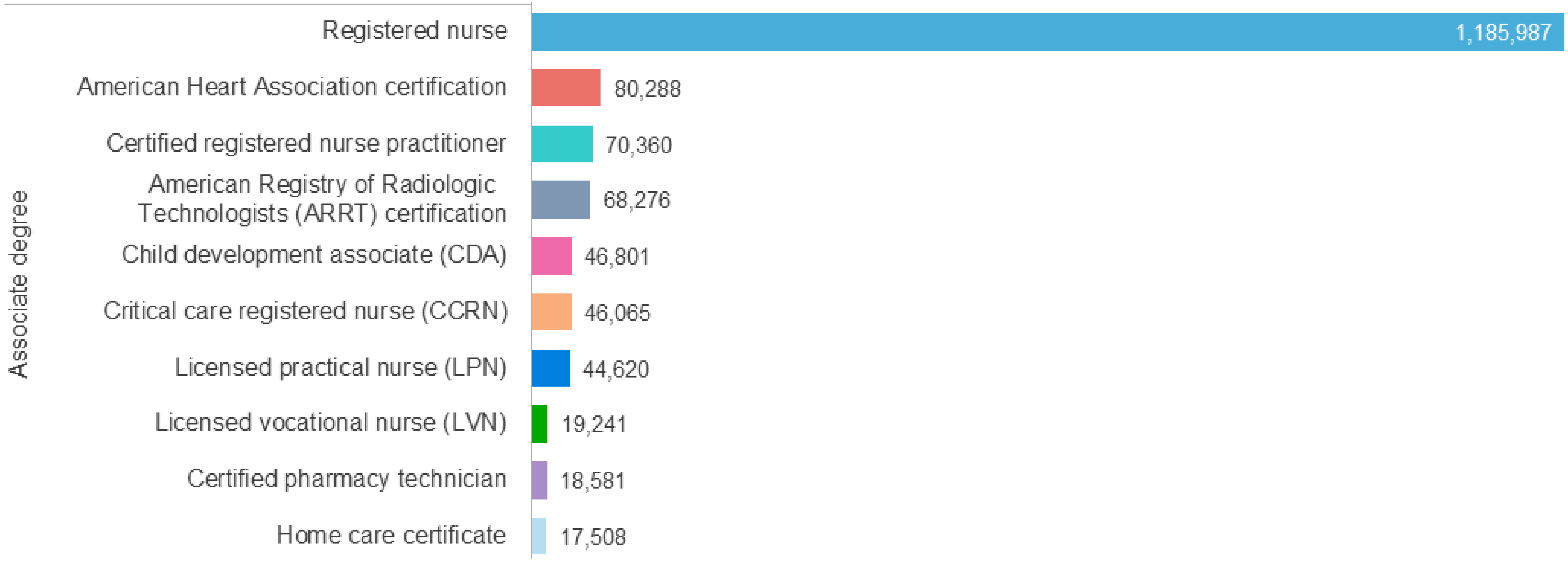
- What we know:
  - Employer demand for short-term credentials is rising
  - Credentials are, on average, associated with higher wage offers
    - Especially for those without four-year degrees
- But which credentials should students pursue?
  - More information is needed about which provide the most value
- To start: which certifications do employers ask for most often?

Top credentials sought by employers: High school degree



NOTE: Data from 2022.
SOURCE: Lightcast.

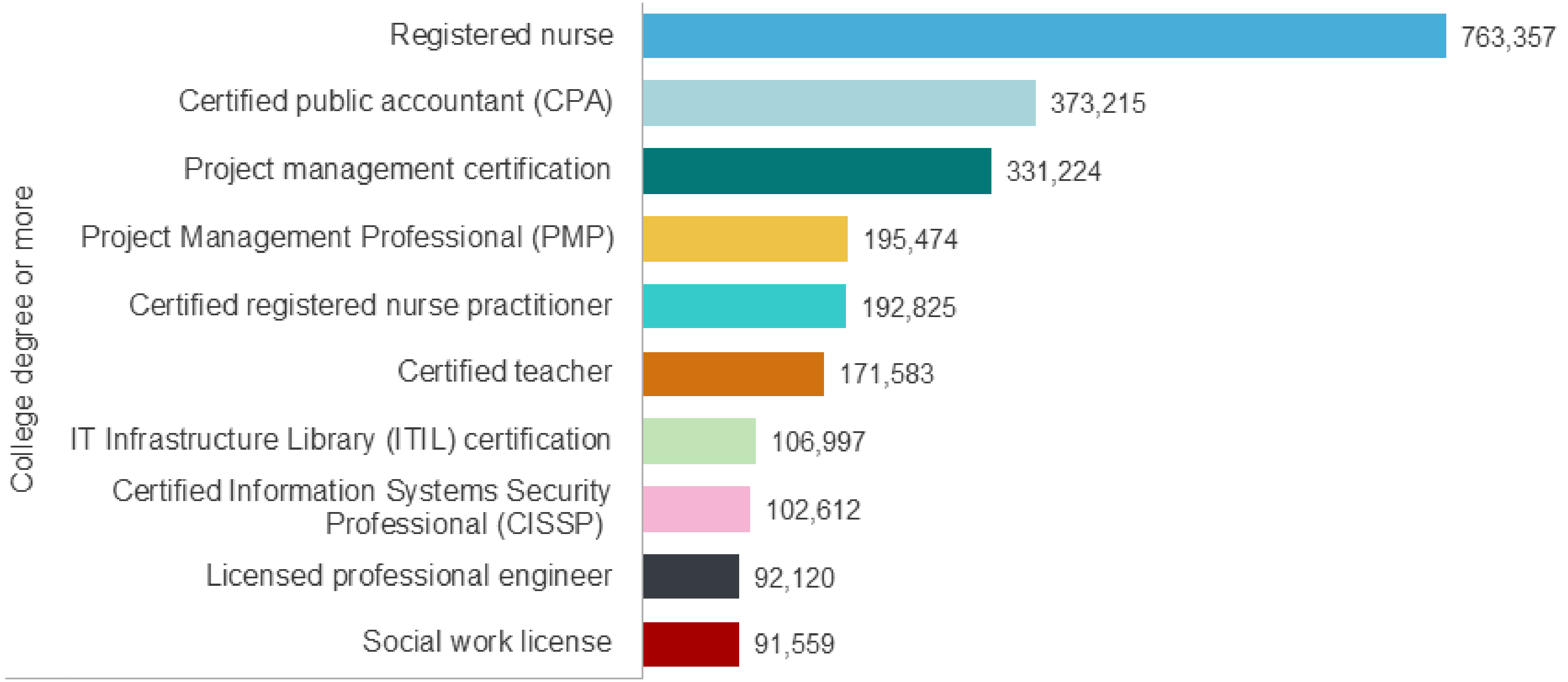
Top credentials sought by employers: Associate degree



NOTE: Data from 2022.

SOURCE: Lightcast.

Top credentials sought by employers: Bachelor's degree



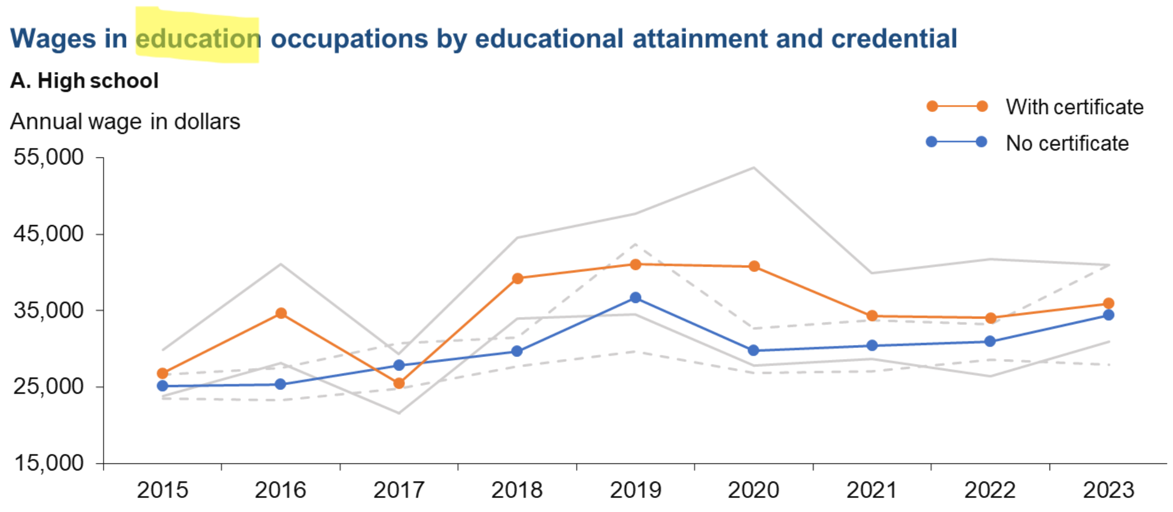
NOTE: Data from 2022.

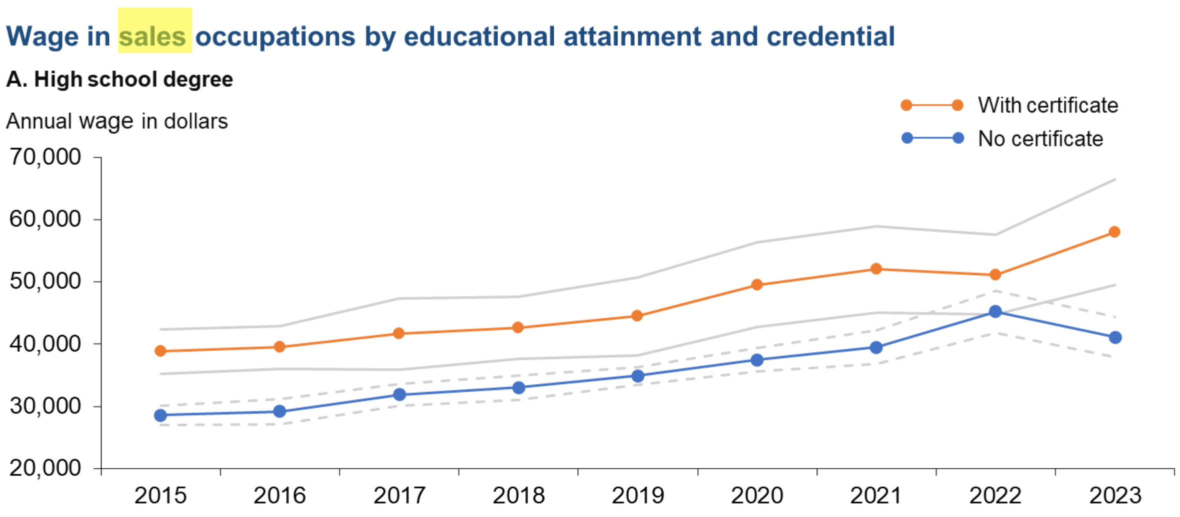
SOURCE: Lightcast.

High demand, big payoff?

- Credentials related to healthcare are most sought after
  - But higher demand does not automatically mean a bigger payoff
- We used Census data to analyze the wage gap between those with and without credentials in 12 occupational groups
  - Continue to break out workers into educational attainment groups
- Result: it's almost impossible to identify clear "winner"
- Two groups demonstrate just how complex this question is
  - Education and sales

High school degree: with or without credential





NOTES: Solid gray lines indicate 90-percent confidence interval for the with-certificate trendlines. Dashed gray lines indicate 90-percent confidence interval for the no-certificate trendlines.

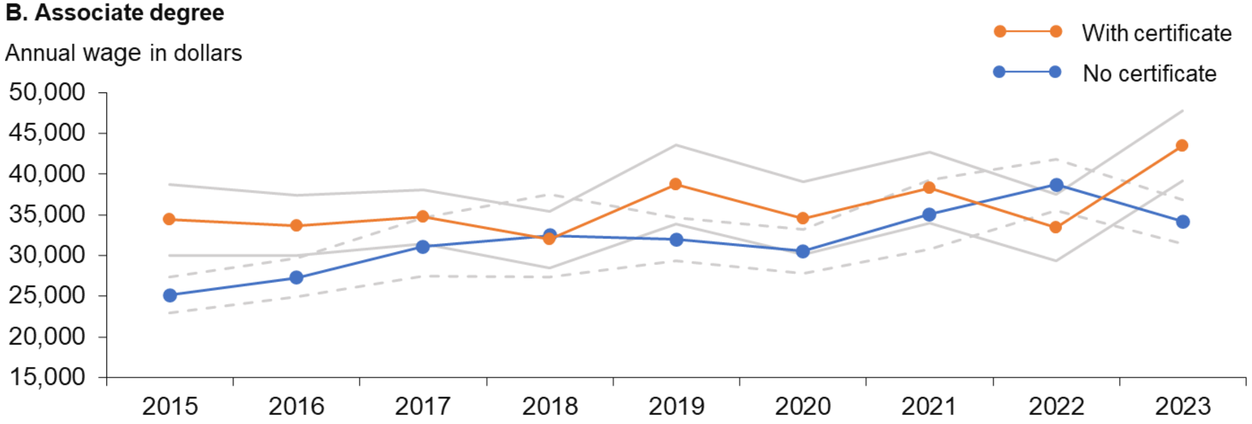
SOURCES: IPUMS CPS ASEC; authors' calculations.

Associate degree: with or without credential

Wages in education occupations by educational attainment and credential

B. Associate degree

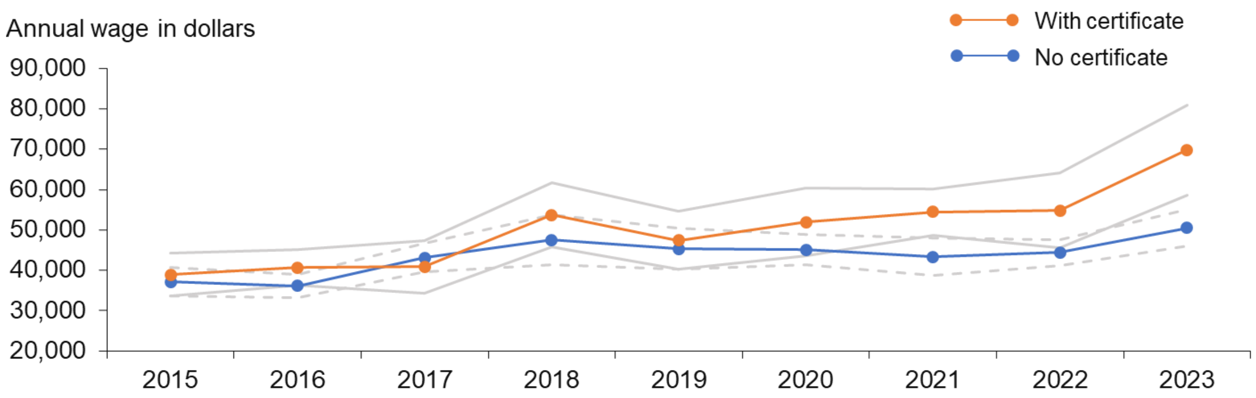
Annual wage in dollars



Wage in sales occupations by educational attainment and credential

B. Associate degree

Annual wage in dollars

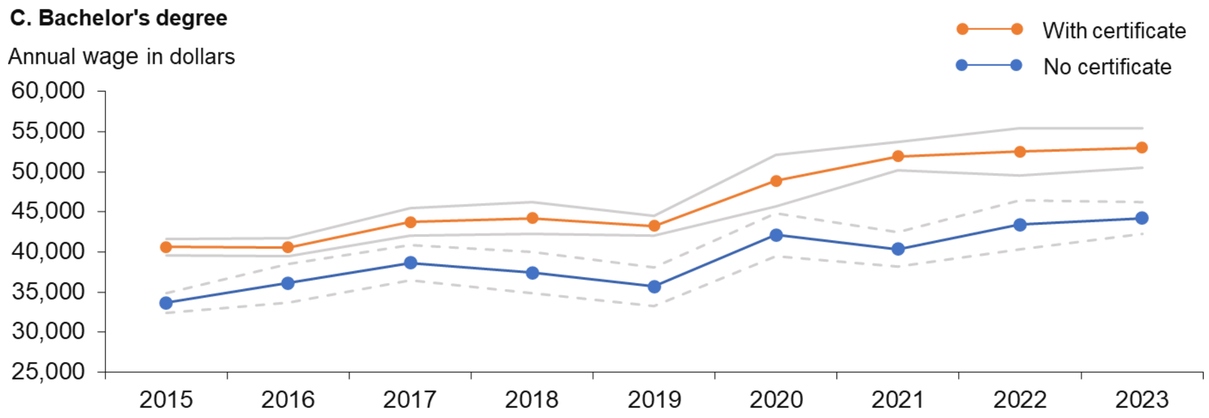


NOTES: Solid gray lines indicate 90-percent confidence interval for the with-certificate trendlines. Dashed gray lines indicate 90-percent confidence interval for the no-certificate trendlines.

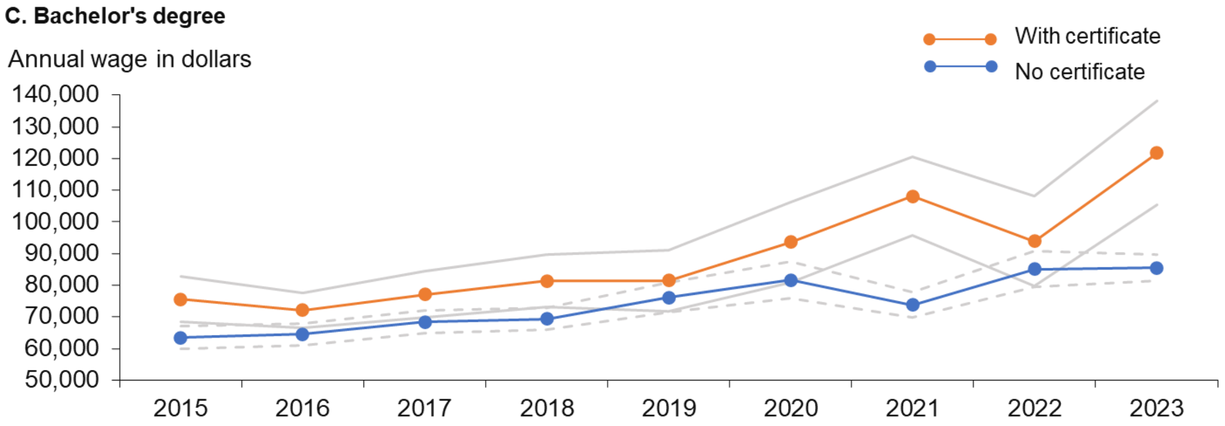
SOURCES: IPUMS CPS ASEC; authors' calculations.

Bachelor's degree: with or without credential

Wages in education occupations by educational attainment and credential



Wage in sales occupations by educational attainment and credential



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The Bottom Line? It's Complicated

- It is extremely important to acknowledge the nuance within short-term credentials
  - Whether they provide a boost in wages
  - Whether these boosts are available to workers of all educational levels

- With the available data, it's not always clear that short-term credentials give a job applicant an advantage

- For these reasons, it is important to tailor programs to individual needs of local workforce and local demand for certain occupations

Read More at Dallasfed.org

Short-term credentials meet growing interest among students, employers

Anna Crockett, Emily Ryder Perlmeter and Xiaohan Zhang

March 06, 2024

Job seekers with associate degrees likely to benefit from short-term credentials

Anna Crockett, Emily Ryder Perlmeter and Xiaohan Zhang

May 08, 2024

How valuable is a short-term credential for a job seeker? It's complicated

Anna Crockett, Emily Ryder Perlmeter and Xiaohan Zhang

August 09, 2024

Recent and Upcoming Work

How might artificial intelligence affect Texas' good jobs?

- *Released November 2025*

Observations from focus groups with young adults on career pathways

- *Upcoming (Late 2025/Early 2026)*

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