

Iowa State Board of Education

Executive Summary

September 17, 2026

Agenda Item:	National Center for Higher Education Management Systems (NCHEMS) Report - Higher Education and Workforce Alignment in Iowa
State Board Goal:	Goal 4
State Board Role/Authority:	Iowa Code section 260C.47(3) grants authority to the State Board of Education to determine whether the programs of a community college shall remain accredited.
Presenter(s):	Amy Gieseke, Administrator Division of Higher Education and Postsecondary Readiness
Attachment(s):	Two
Recommendation:	It is recommended that the State Board hear and discuss this information.
Background:	The Department of Education contracted with NCHEMS to conduct a comprehensive analysis of the State's higher education system, including public Regent institutions, all 15 community colleges, and private colleges and universities. The report assesses the alignment of current program offerings with workforce needs, identifies training gaps, and produces findings and recommendations to support data-driven policy and funding decisions

NCHEMS REPORT - Higher Education and Workforce Alignment in Iowa

Presented to the State Board of Education
September 17, 2026



Department of Education

Background

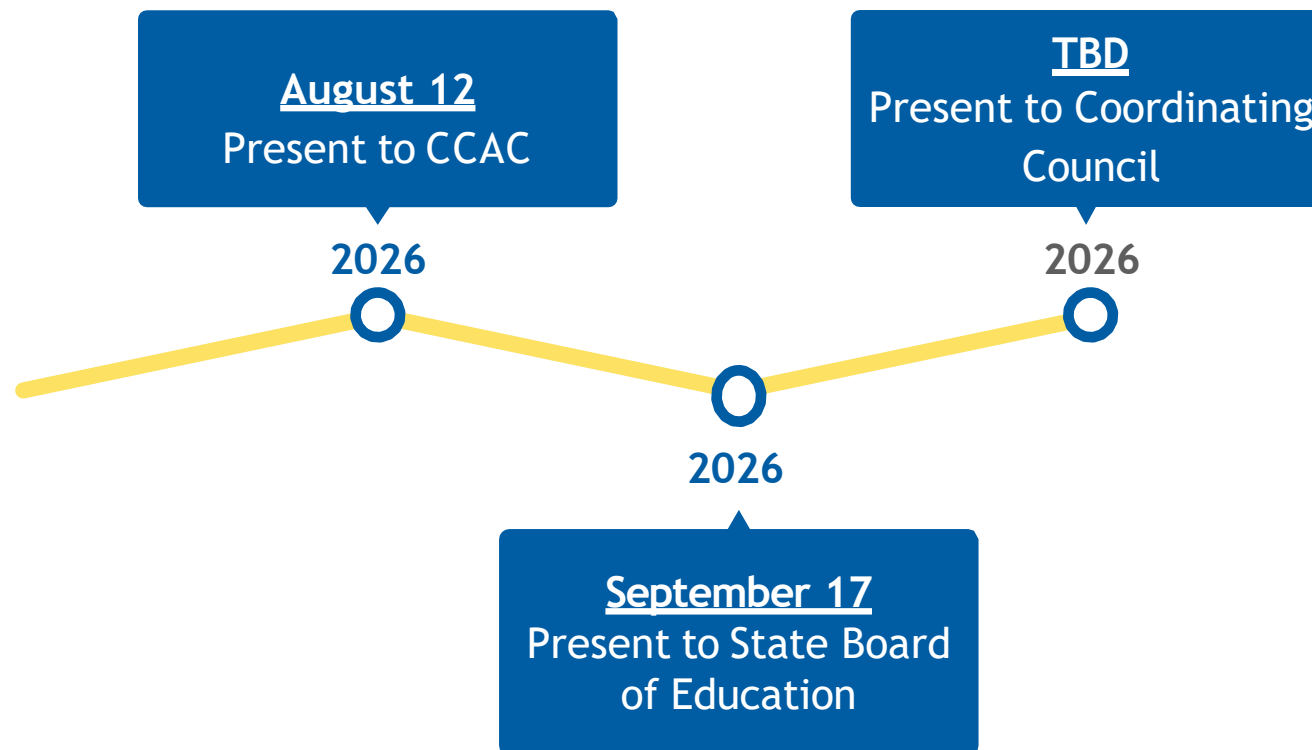
The Iowa Department of Education contracted with the **National Center for Higher Education Management Systems (NCHEMS)** to conduct a:

- comprehensive analysis of the state's higher education system, including public Regent institutions, all 15 community colleges, and private colleges and universities

Request:

- assess the alignment of current program offerings with workforce needs
- identify training gaps
- produce findings and recommendations to support data-driven policy and funding decisions

Timeline



Methods

- Report relied primarily on quantitative analysis of administrative data
- NCHEMS augmented publicly-available quantitative data with:
 - Thirteen group interviews that included 10-20 local experts
 - Nine regionally focused meetings with various stakeholders
 - An online form, which included 24 additional responses with comments

Key Questions

1. How is Iowa's **population changing**?
 - a. How will the potential audience for postsecondary education change in the future?
2. What does the **labor market** look like in Iowa?
 - a. How does it differ by region, and what future changes are expected?
 - b. What does this all mean for postsecondary demand?
3. Where are the gaps in **postsecondary program access**?
4. Where are the strengths and weaknesses in Iowa's **education-to-work pipeline**?
5. What is the alignment—or misalignment—between **educational supply and workforce demand**?
 - a. Are there disciplines and/or regions in which Iowa's IHEs are not graduating enough students to meet workforce needs?

Key Findings (Slide 1)

1. Iowa is a **net importer** to higher education and **net exporter** of BA-educated talent
2. Over the next decade, Iowa will see an increase in the **educational requirements** of its labor force
3. Iowa's public and private colleges and universities collectively have **sufficient capacity to fulfill the state's current and future needs** for college-educated talent
4. Iowa is not sufficiently meeting the needs of **adult learners**
 - Participation of traditionally aged students: 8th
 - Participation of working-age adults: 42nd

Key Findings (Slide 2)

5. While stakeholders have been working hard to ensure successful transfer for students, efforts have **not resulted in transfer improvements** that are evident in the data

- Transferred to a 4-yr w/in 3 years: down from 34% in 16-17 cohort to 31% in 22-23 cohort
- Transfer-oriented AA degree: down from 67% in 16-17 cohort to 63% in 22-23 cohort

6. Awards in the **health professions**, already the most numerous across Iowa, grew most over the past decade

7. Graduates of Iowa's community colleges tend to **remain in Iowa**; about half of graduates of Iowa's public universities are working in Iowa five years after graduation

8. The number of **registered apprenticeships** offered through Iowa Community Colleges has nearly doubled since 2020, with Hawkeye as one of the greatest drivers

Report Recommendations

1. Improve the state's capacity for gathering and analyzing data about the linkages between educational supply and workforce demand
 - **SLDS improvements**
 - **Private IHE data**
 - **Noncredit data**
2. Enhance the state's ability to plan and coordinate how its higher education assets work separately and together to achieve state priorities
 - **Coordinating Council**
3. Develop policies that promote the creation of institutional capacity to deliver programs to remote sites on an as-needed basis
 - **Meet short-term, workforce needs (Workforce Pell)**

1. How is Iowa's population changing?

How is Iowa's Population Changing?

Population and Demographic Change

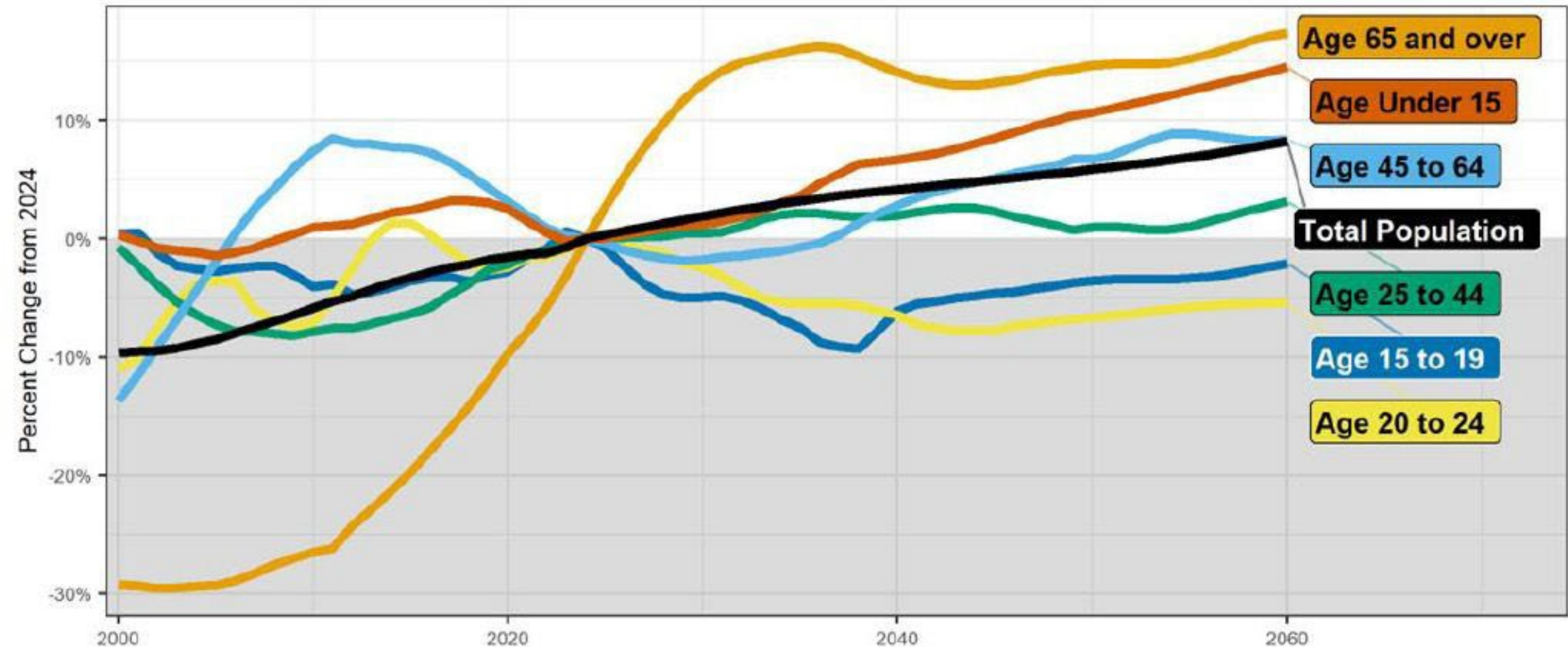
- Iowa's population is aging and becoming more diverse

Migration

- Iowa is a net importer of college students; many more students come to Iowa IHEs from out of state than leave the state to attend college elsewhere
 - Compared to other states, Iowa is the 8th largest net importer of college students
 - However, Iowa is the most significant net exporter of talent educated at the baccalaureate level of any state in the nation

Population and Demographic Change: Age

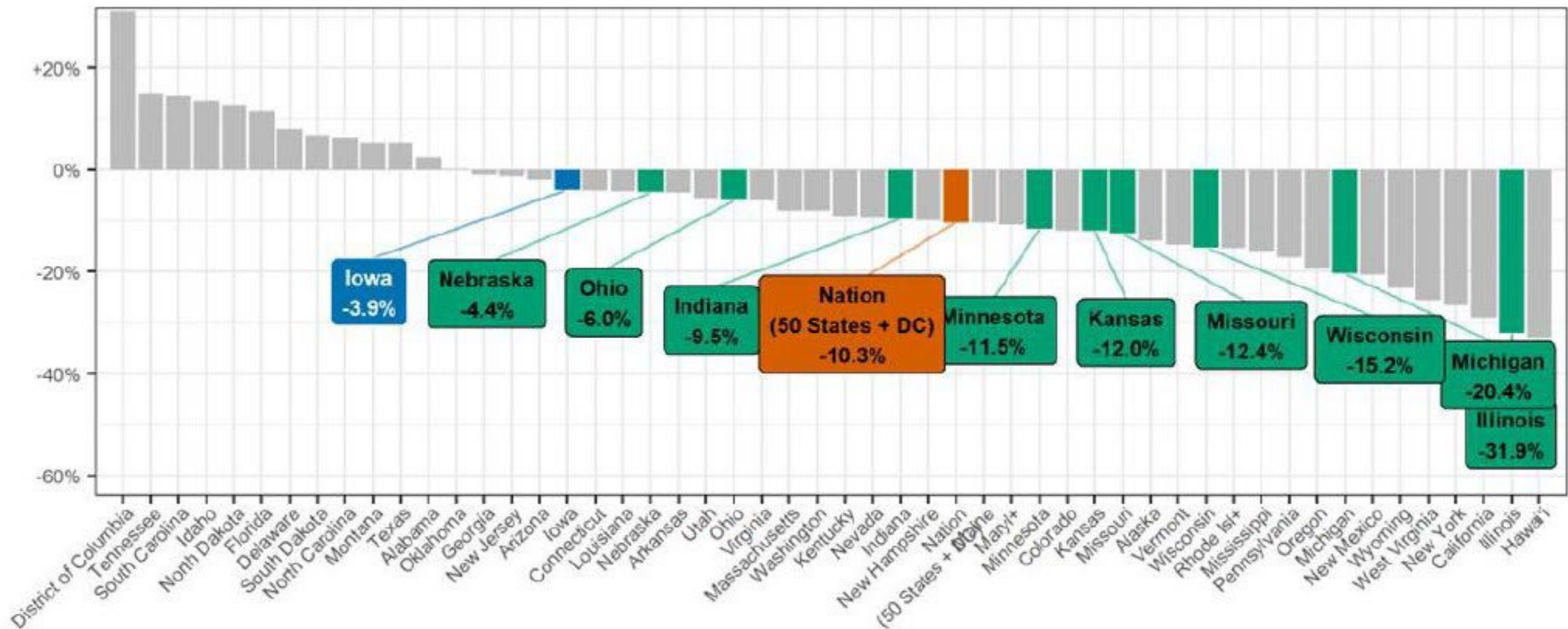
Figure 4. Projected Iowa Population Change from 2024, by Age Group



Source: 2025 Woods & Poole Economics, Inc. via the Iowa State Data Center.

Population and Demographic Change: Total High School Graduates

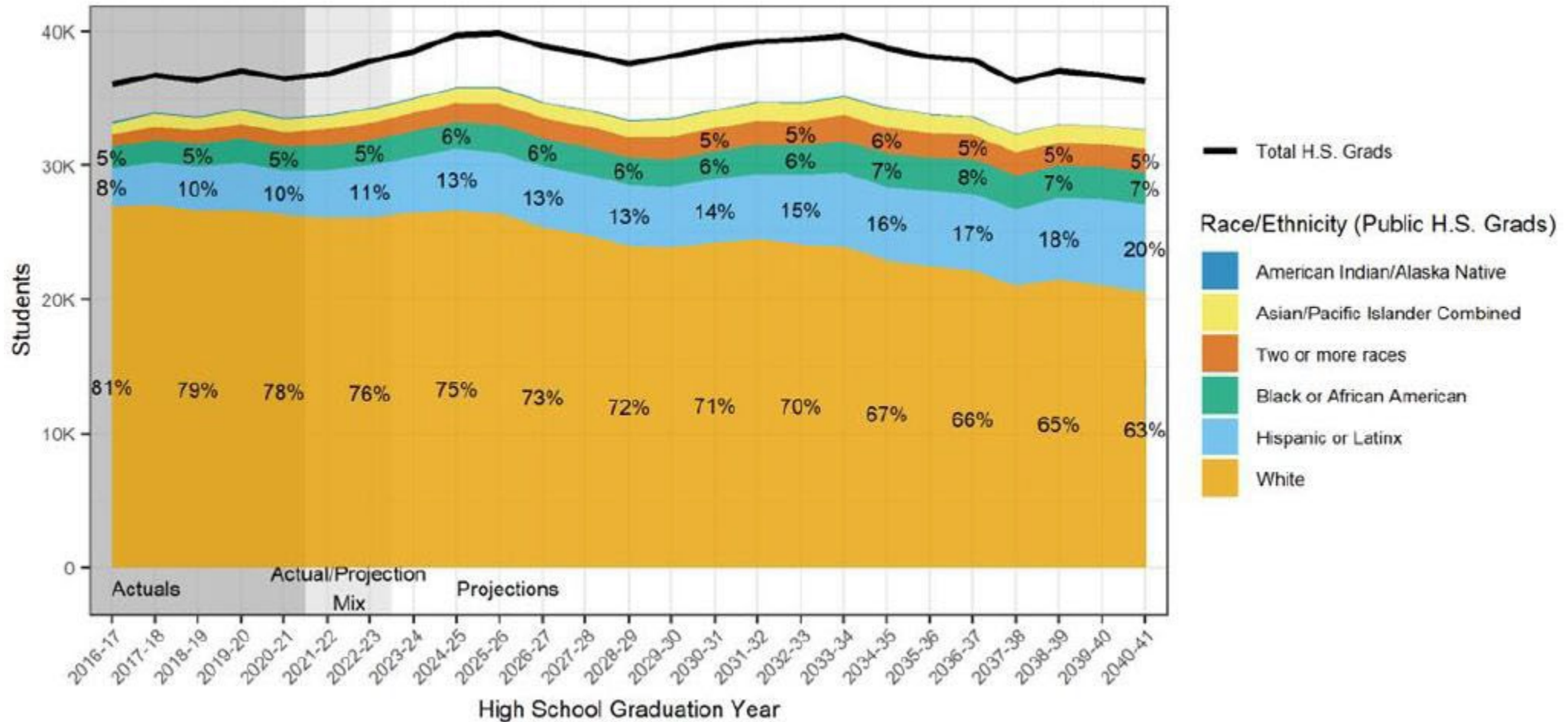
Figure 8. Projected Change in Total High School Graduates, 2022-23 to 2040-41, by State



Source: Western Interstate Commission for Higher Education, Knocking at the College Door: Projections of High School Graduates, 2024.
<https://www.wiche.edu/knocking>

Population and Demographic Change: Race/Ethnicity

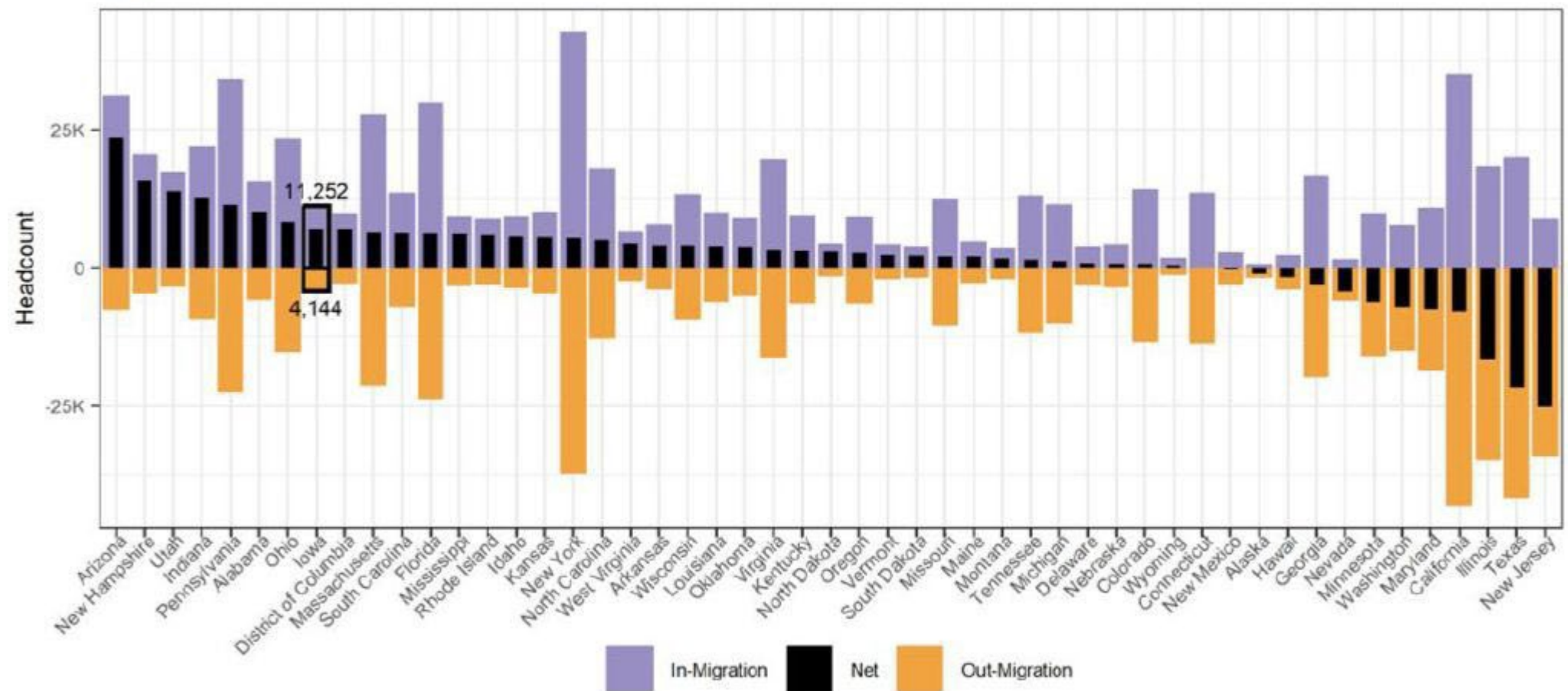
Figure 6. Projected Iowa High School Graduates, by Race/Ethnicity



Source: Western Interstate Commission for Higher Education, Knocking at the College Door: Projections of High School Graduates, 2024. <https://www.wiche.edu/knocking>. Notes: Race/ethnicity was only available for public high school graduates. Public total numbers are actuals through 2022-23. Public school Race/ethnicity includes actuals through 2021-22. Later years are projections. The difference between the total (line) and the races/ethnicities (colors) is private high school graduates. Percentages are based on public high school graduates only.

Migration: First-Time Degree-Seeking Student

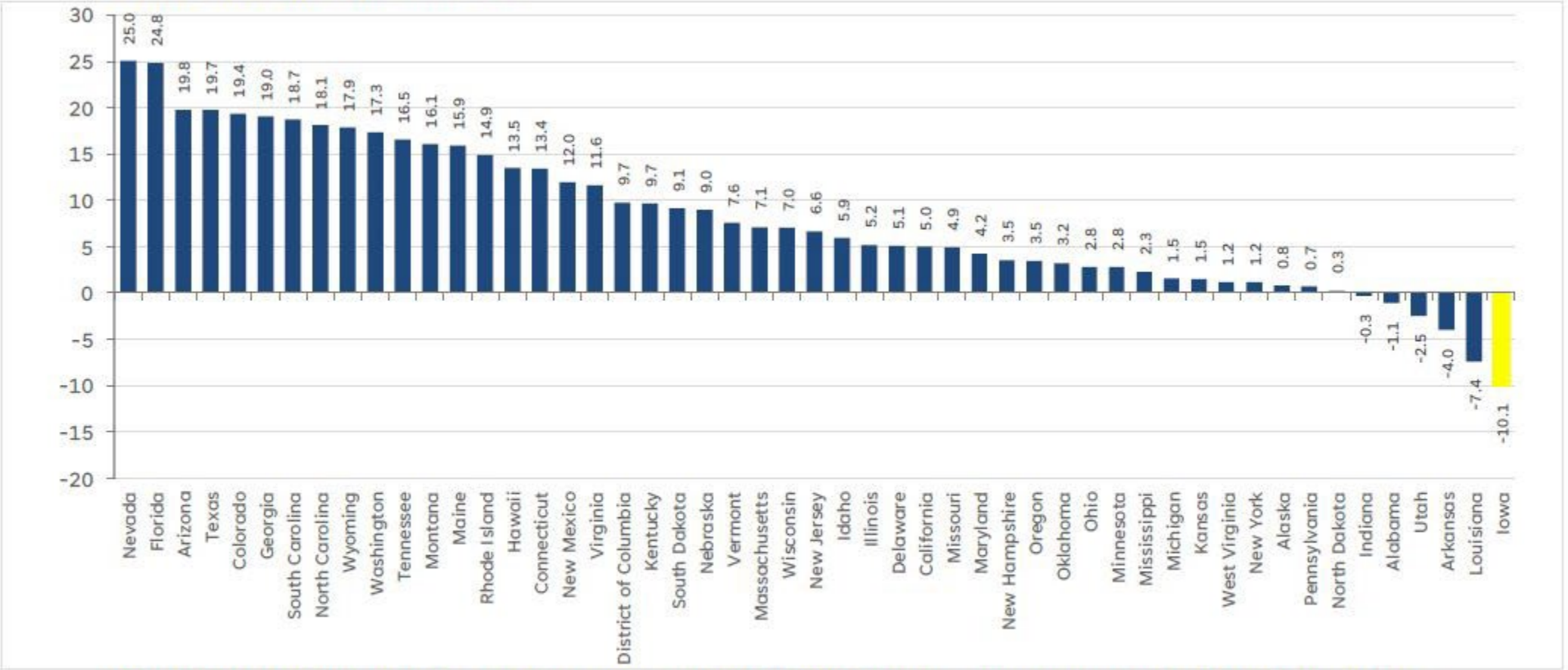
Figure 9. In-Migration and Out-Migration of First-Time Degree-Seeking Students by State, Fall 2024



Source: NCES IPEDS 2024 Fall Enrollment Survey, ef2024c provisional release file. Note: represents students attending Title-IV eligible U.S. institutions as first-time degree-seeking students. Excludes students whose state or residence is unknown and those attending an institution in the same state as their permanent residence.

Migration: Net-Migration Rates of Population with a Bachelor's Degree and Above

Figure 11. Average Annual Net-Migration Rates of Population Age 22-64 with a Bachelor's Degree and Above, 2022-2024



Notes: The Net-Migration Rate is defined as net-migrants (in-migrants less out-migrants) per 1,000 population. Data include in-migrants from U.S. states, U.S. territories/island areas, and foreign countries. Out-migrants to U.S. territories/island areas and foreign countries cannot be accounted for. Source: U.S. Census Bureau, 2022, 2023, and 2024 American Community Survey (ACS) Public Use Microdata Samples.

2. What does the labor market look like in Iowa?

What does the labor market look like in Iowa?

Educational Demand

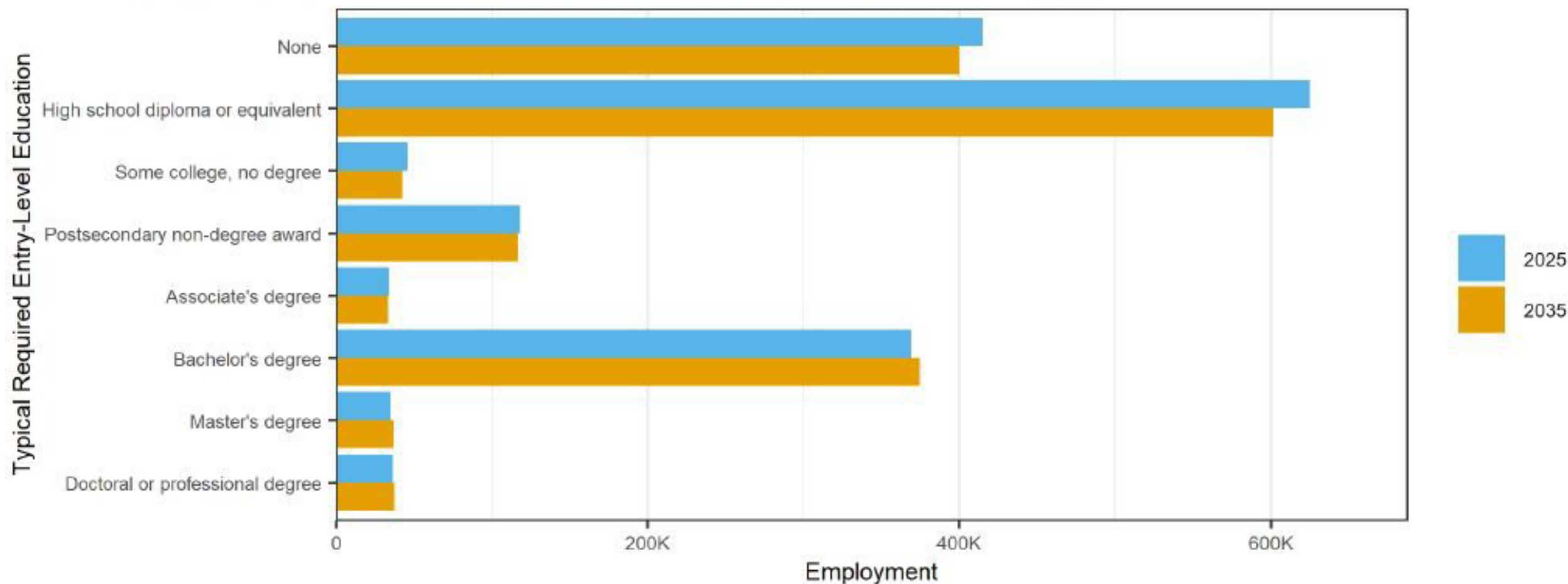
- Over the next 10 years, Iowa will see an increase in the educational requirements of its labor force
- Among occupations requiring bachelor's degrees, demand is expected to be greatest in management, nursing, accounting, and education
- Among occupations requiring an associate degree, demand is expected to be greatest among preschool teachers, legal aides, health-related positions, and agricultural and technical positions

Economic & Regional Variations

- Iowa's industry mix has changed over time, differs from that of the U.S., and varies by region
- In some regions of Iowa, wages are lower than in surrounding states, even after adjusting for cost-of-living differences
- Unemployment in Iowa is lower than the national average

Educational Demand: Entry-Level Education

Figure 19. Iowa Jobs by Typical Entry-Level Education, 2025 and 2035



Source: JobsEQ. Note: 2035 jobs are projections.

Educational Demand: Forecasted Demand Requiring at Least a Bachelor's Degree

Figure 25. Top 15 Iowa Occupations with the Largest Forecasted Demand Typically Requiring At Least a Bachelor's Degree, 2025-2035

Iowa

SOC	Occupation	10-Year Forecasted Demand (1)	Forecasted Annual Percent Growth	Current Employment 2025 (2)	Mean Annual Wage (3)
11-1021	General and Operations Managers	26,336	0.0%	34,488	\$105,400
29-1141	Registered Nurses	15,820	-0.1%	33,364	\$80,500
13-2011	Accountants and Auditors	10,461	0.1%	14,136	\$82,900
25-2021	Elementary School Teachers, Except Special Education	9,635	-0.4%	15,679	\$57,700
13-1199	Business Operations Specialists, All Other	8,484	0.1%	9,819	\$82,000
11-3031	Financial Managers	7,647	1.3%	9,160	\$147,800
11-9199	Managers, All Other	7,331	0.0%	9,845	\$133,200
25-3031	Substitute Teachers, Short-Term	7,266	0.0%	6,237	\$40,300
13-1161	Market Research Analysts and Marketing Specialists	7,098	0.3%	8,190	\$77,900
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	6,876	-0.4%	11,868	\$60,600
15-1252	Software Developers	6,696	1.1%	10,715	\$119,800
13-1071	Human Resources Specialists	6,352	0.2%	7,886	\$73,800
11-9111	Medical and Health Services Managers	6,021	1.6%	6,578	\$117,900
13-1111	Management Analysts	5,532	0.6%	6,359	\$91,800
13-1082	Project Management Specialists	4,857	0.1%	7,143	\$103,200

Source: JobsEQ. Data as of 2025Q2. (1) Forecasted demand includes expected new growth and vacancies due to workers leaving the occupation (exits and transfers). (2) Data based on a four-quarter moving average. (3) Wage data represents the average for all covered occupations.

Educational Demand: Forecasted Demand Requiring a Postsecondary Certificate or Associate's Degree

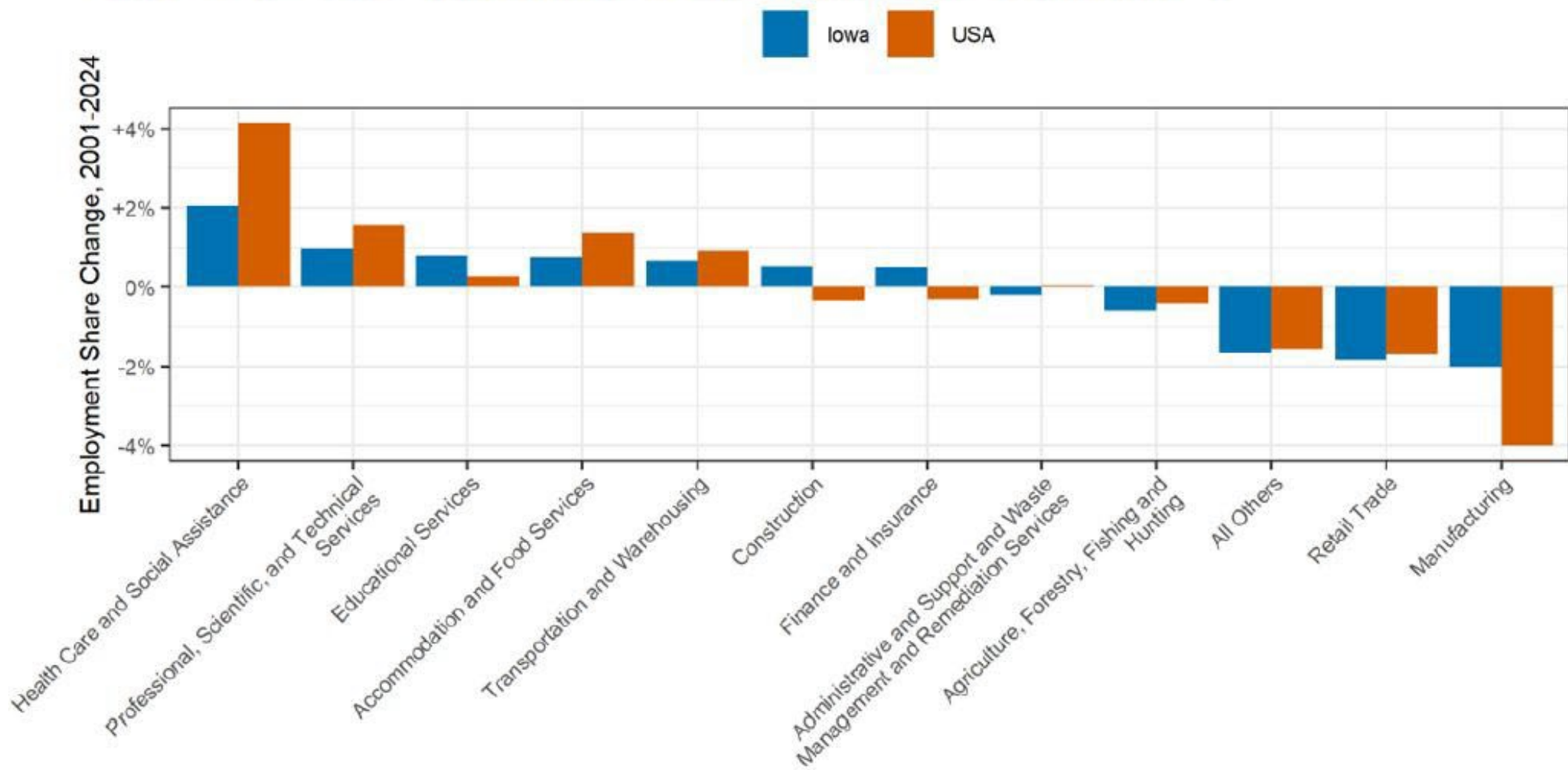
Figure 26. Top 15 Iowa Occupations with the Largest Forecasted Demand Typically Requiring a Postsecondary Certificate or Associate Degree, 2025-2035

Iowa					
SOC	Occupation	10-Year Forecasted Demand (1)	Forecasted Annual Percent Growth	Current Employment 2025 (2)	Mean Annual Wage (3)
25-2011	Preschool Teachers, Except Special Education	7,248	0.1%	6,458	\$35,800
23-2011	Paralegals and Legal Assistants	2,432	-0.2%	2,417	\$58,000
31-2021	Physical Therapist Assistants	1,849	1.5%	1,116	\$64,000
29-2056	Veterinary Technologists and Technicians	1,190	0.3%	1,204	\$44,300
29-1292	Dental Hygienists	1,187	0.2%	1,948	\$87,600
29-2034	Radiologic Technologists and Technicians	1,150	-0.2%	2,400	\$69,300
19-4012	Agricultural Technicians	1,037	-0.1%	704	\$44,200
15-1231	Computer Network Support Specialists	987	-0.3%	1,711	\$68,500
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	879	-1.1%	983	\$49,000
19-4099	Life, Physical, and Social Science Technicians, All Other	828	0.0%	689	\$53,500
17-3022	Civil Engineering Technologists and Technicians	709	-0.2%	894	\$68,700
17-3011	Architectural and Civil Drafters	694	0.0%	830	\$67,200
17-3023	Electrical and Electronic Engineering Technologists and Technicians	684	-0.7%	878	\$74,100
23-2099	Legal Support Workers, All Other	654	-0.3%	727	\$54,500
31-2011	Occupational Therapy Assistants	643	1.2%	475	\$66,500

Source: JobsEQ. Data as of 2025Q2. (1) Forecasted demand includes expected new growth and vacancies due to workers leaving the occupation (exits and transfers). (2) Data based on a four-quarter moving average. (3) Wage data represents the average for all covered occupations.

Economic & Regional Variations: Change in Share of Employment

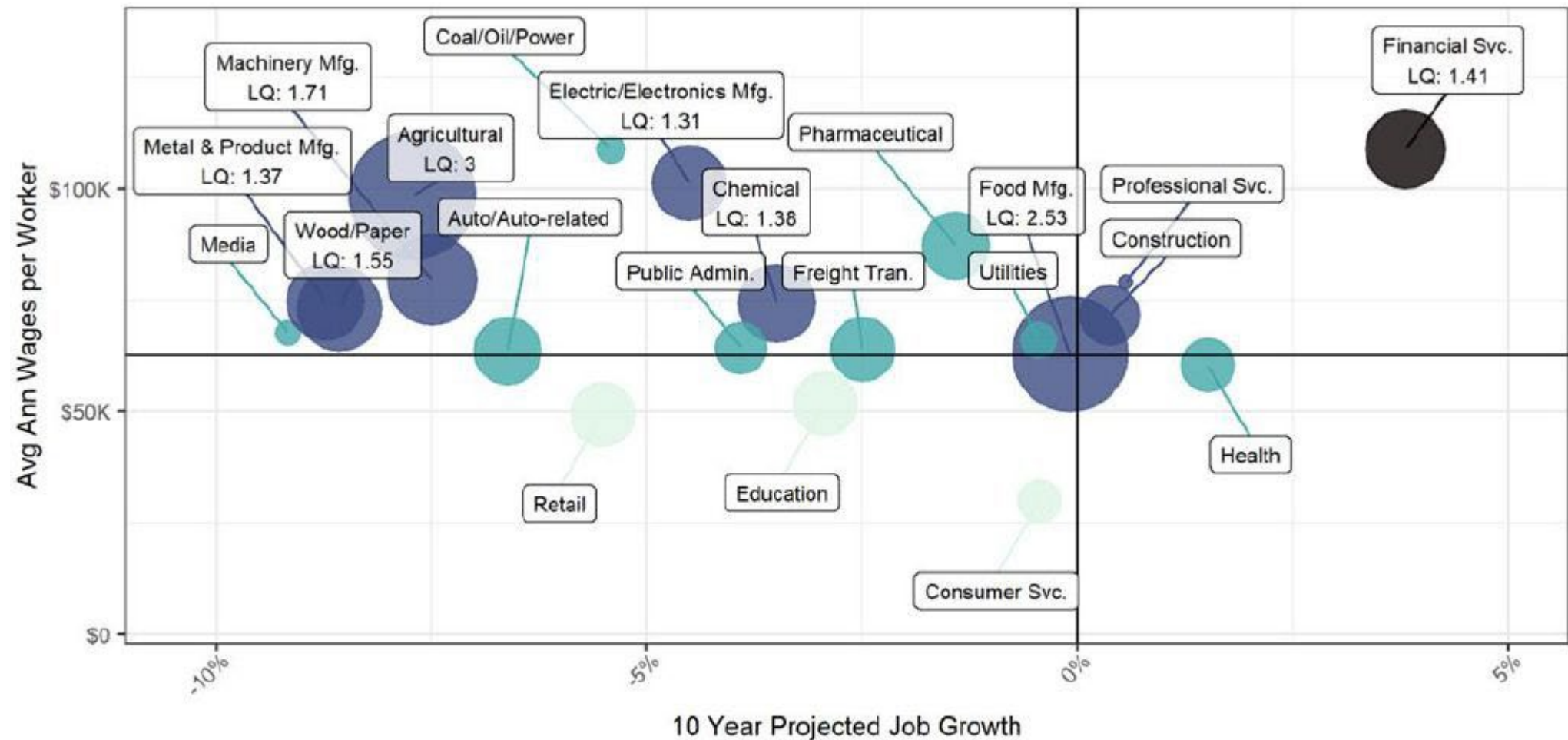
Figure 21. 2001-2024 Change in Share of Employment by Industry, Iowa and USA



Source: Jobs EQ. Data current through 2025Q2.

Economic & Regional Variations: Iowa Comparative Advantage

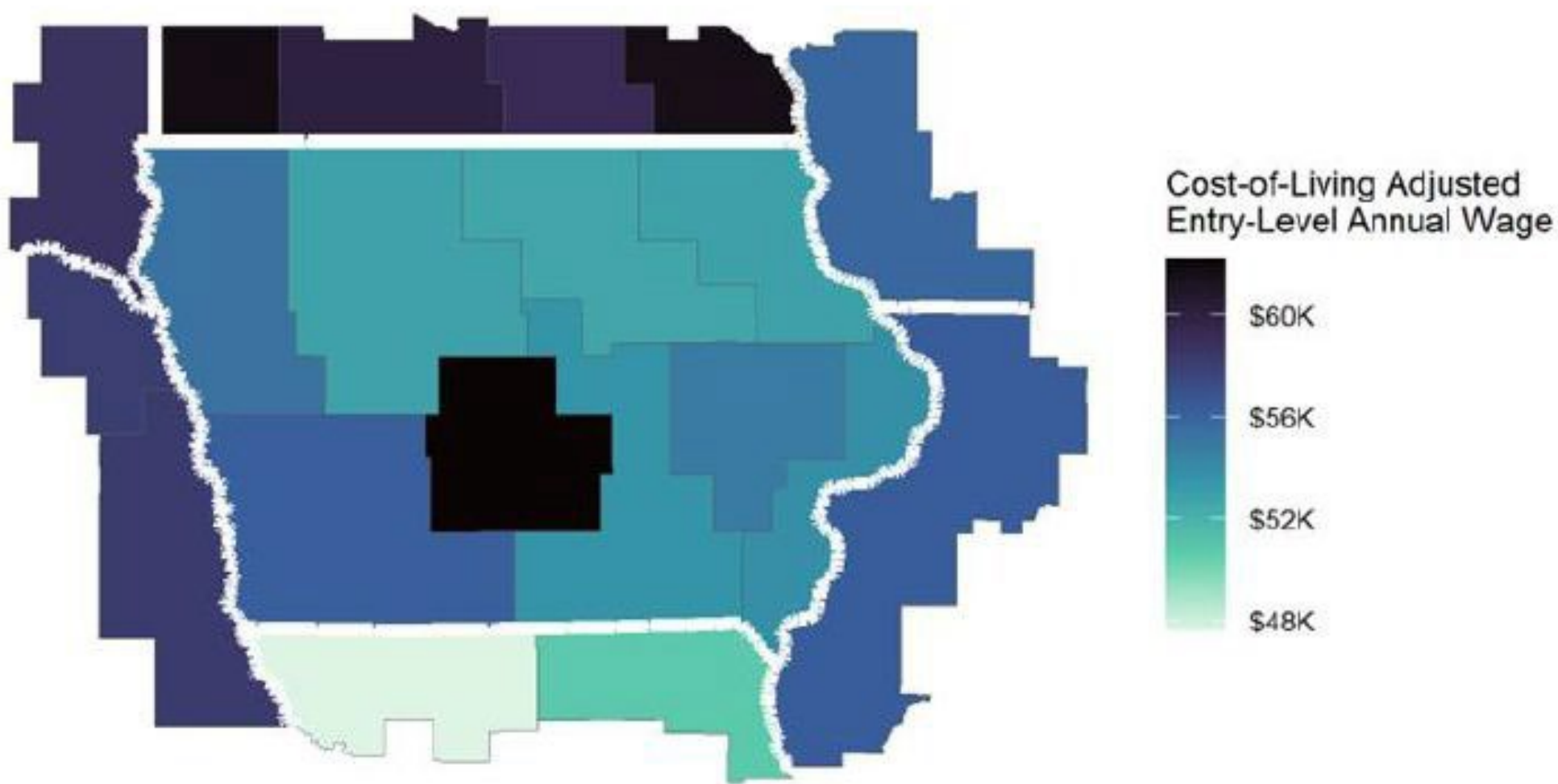
Figure 24. Iowa Comparative Advantage by Industry Cluster



Source: Jobs EQ. Data current through 2025Q3. Bubble size reflects the 4-quarter average Location Quotient (LQ). Only industry clusters with an LQ higher than .5 are displayed. Darker colors indicate more advantages: Above-average wages, projected job growth, and/or local competitive advantage (as measured by Location Quotient).

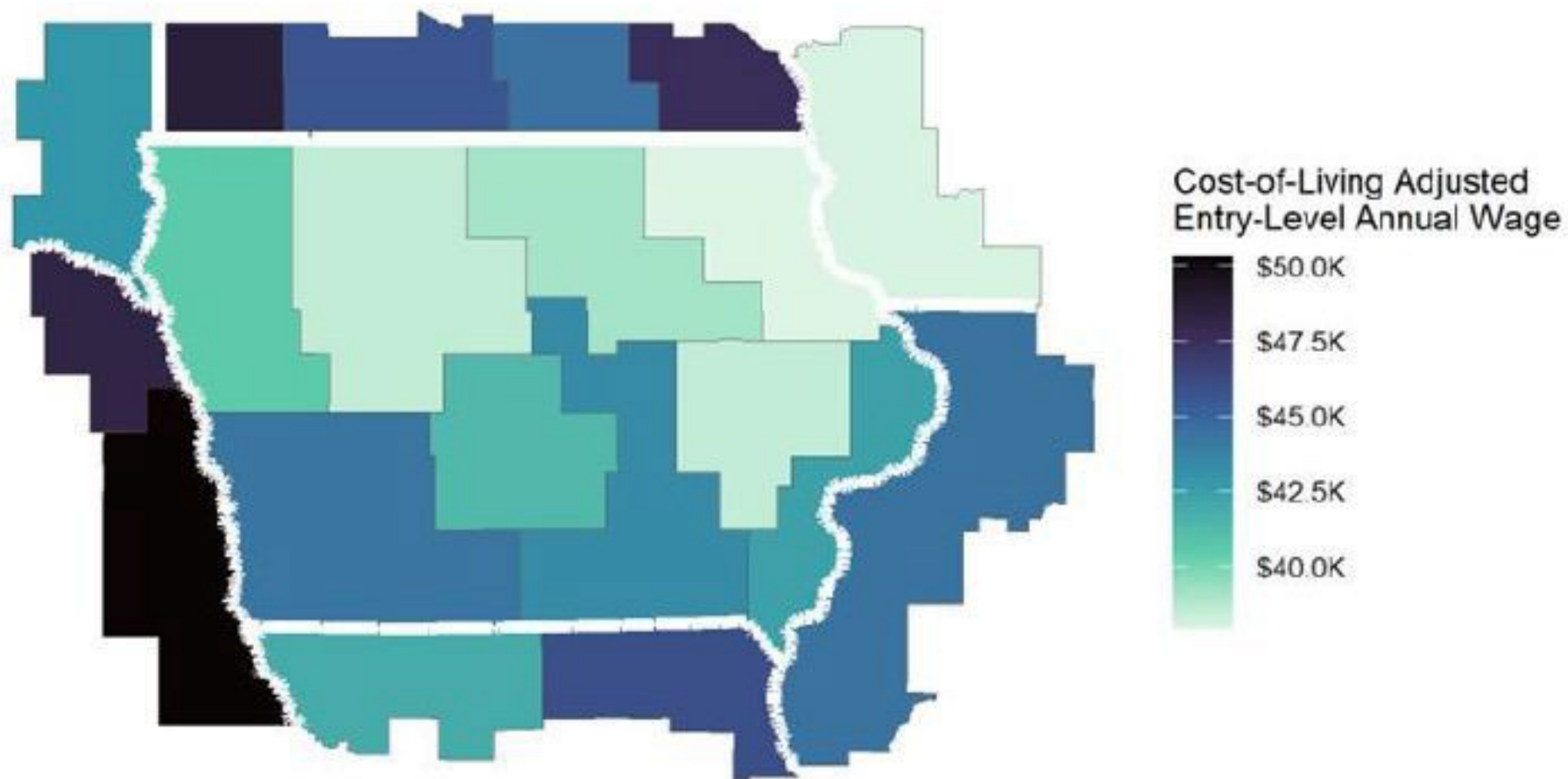
Economic & Regional Variations: Bachelor & Associate Degree Occupation Wages

Figure 29. Bachelor's Degree Occupations' Average Entry-Level Wages by Region, Adjusted for Cost-of-Living



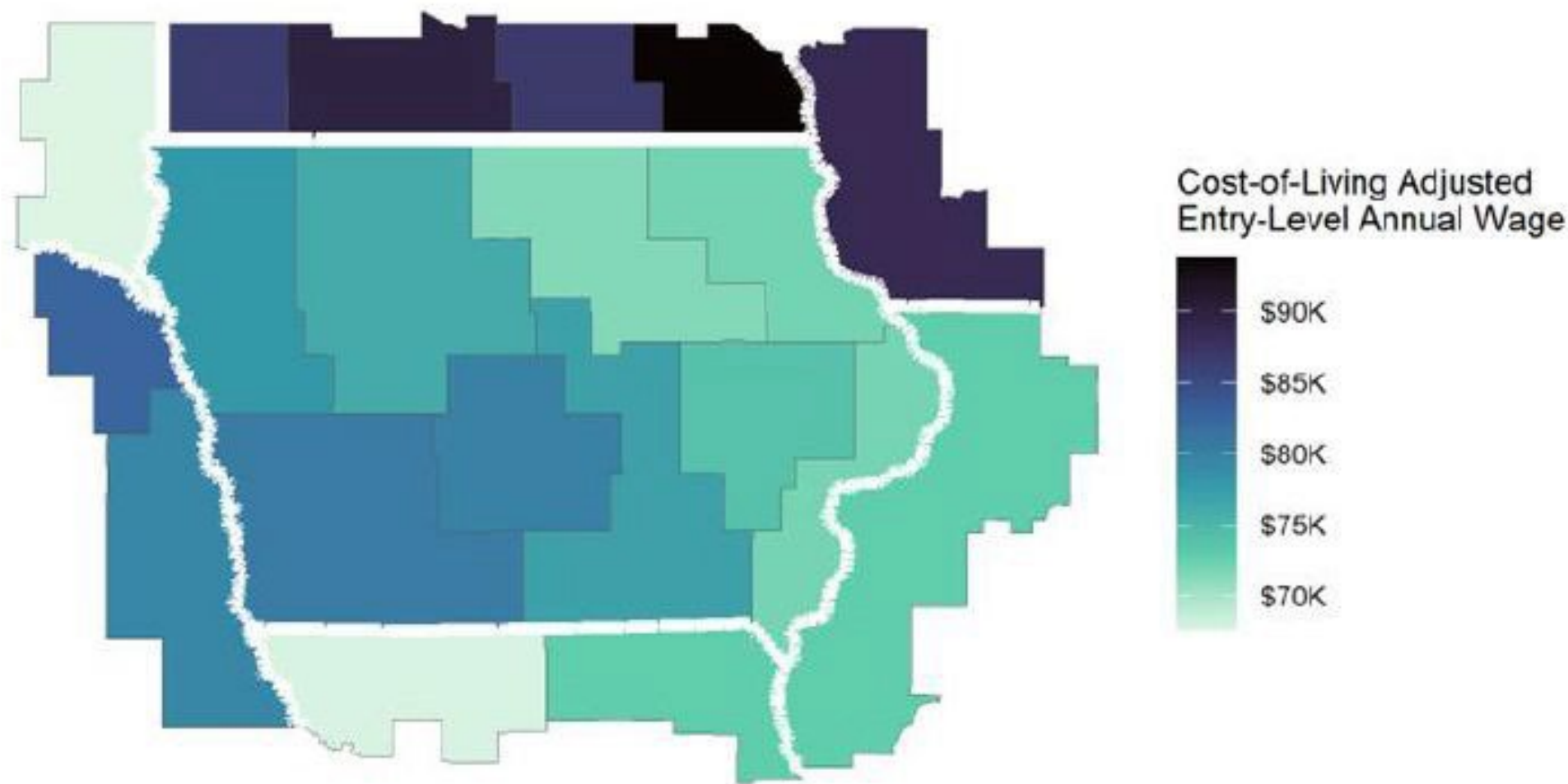
Economic & Regional Variations: Bachelor & Associate Degree Occupation Wages

Figure 30. Associate Degree Occupations' Average Entry-Level Wages by Region, Adjusted for Cost-of-Living



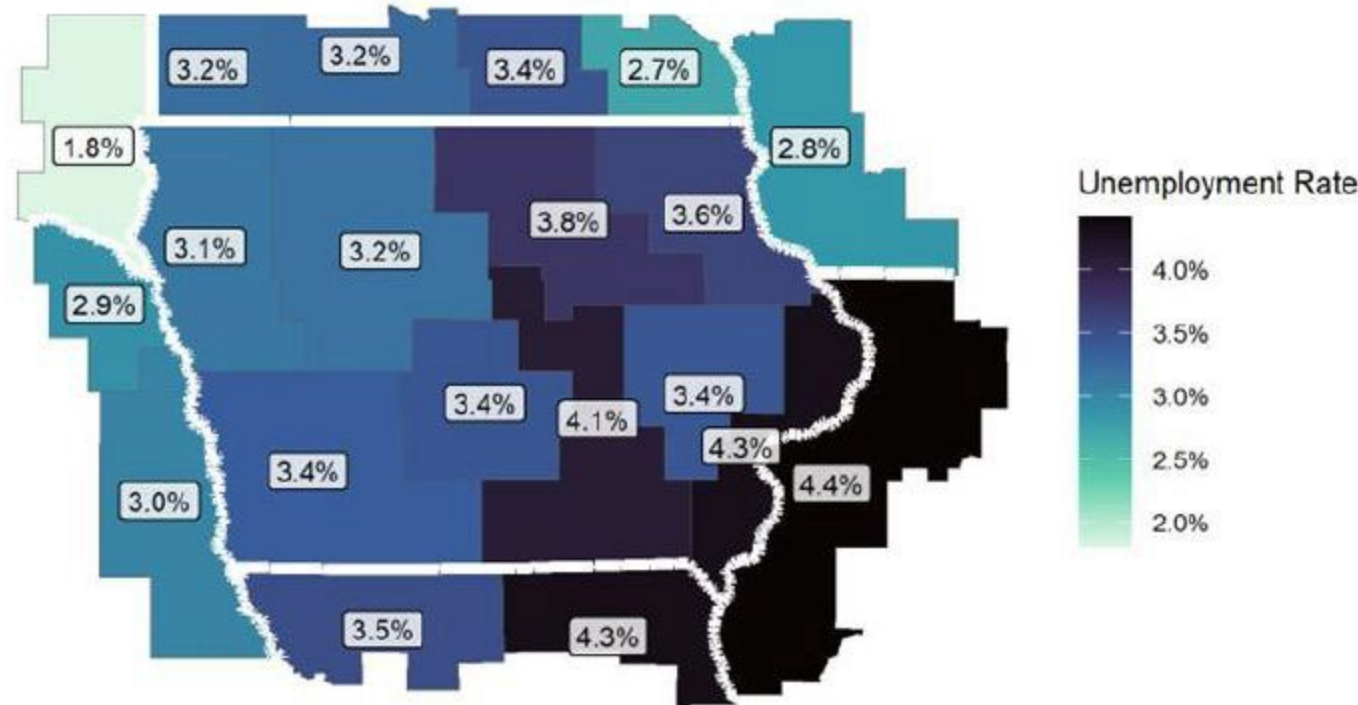
Economic & Regional Variations: Bachelor & Associate Degree Occupation Wages

Figure 31. Registered Nurses' Average Entry-Level Wages by Region, Adjusted for Cost-of-Living



Economic & Regional Variations: Unemployment

Figure 28. Unemployment Rate by Region, 2024Q4-2025Q3



Source: Jobs EQ. Notes: Includes counties that are at least partially within 30 miles of the Iowa border. Unemployment rate imputed from Bureau of Labor Statistics data. It represent the average for the four quarters ending 2025Q3.

3. Where are the gaps in postsecondary program access?

Where are the gaps in postsecondary program access?

Institutional Capacity & Supply

- Iowa has more institutions per 100,000 adult residents than 42 other states

“The evidence collected for this study points to a clear conclusion: Iowa’s public and private colleges and universities collectively have sufficient capacity to fulfill the state’s current and future needs for college-educated talent.”

Enrollment Trends, Demographics, and Access

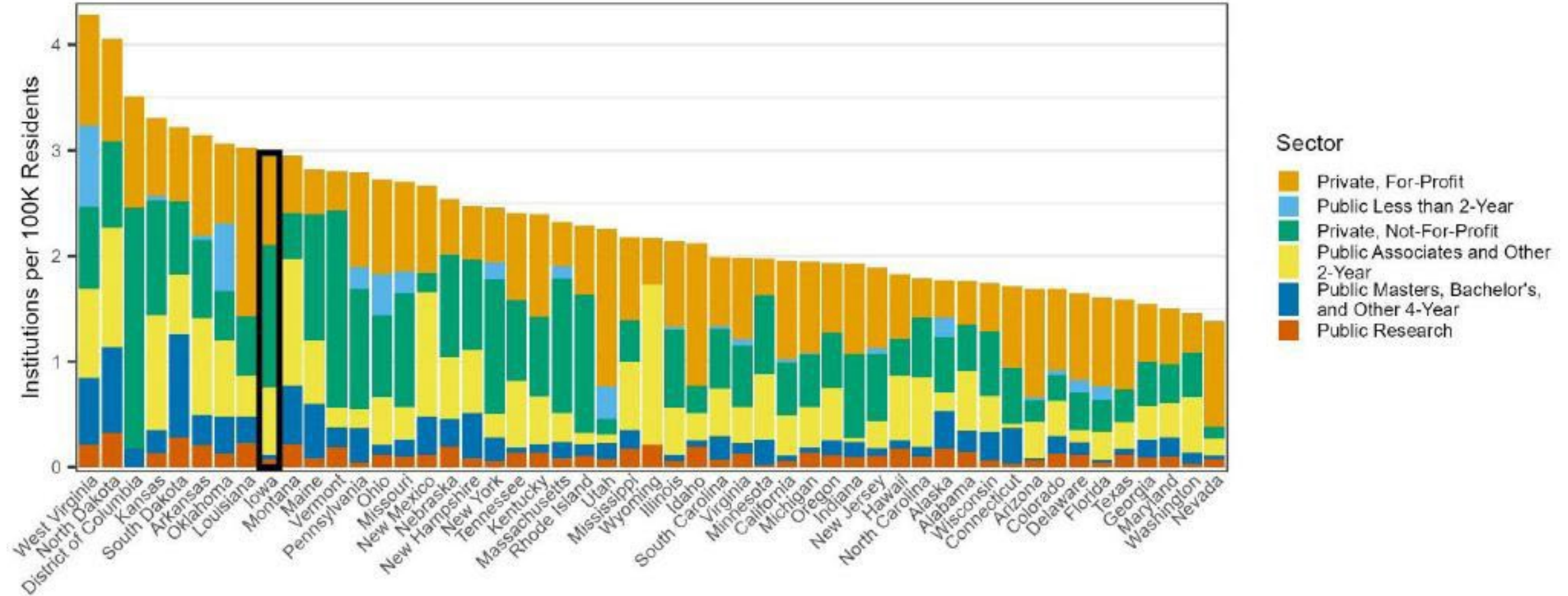
- In line with national trends, postsecondary enrollment across the state has declined over many years, with decreases concentrated in the community college and private sectors
- About one-third of degree-seeking community college students are age 25 or older, while only 6% of public university students are age 25 or older
- Men are represented at lower rates in Iowa’s college population

Affordability & Delivery Modality

- The Iowa Board of Regents and private four-year institutions have been working to expand access to online degrees, sometimes with in-person support
- Affordability, as indicated by net price, is lowest at Iowa’s community colleges and highest at private institutions on average

Institutional Capacity & Supply: Postsecondary Institutions

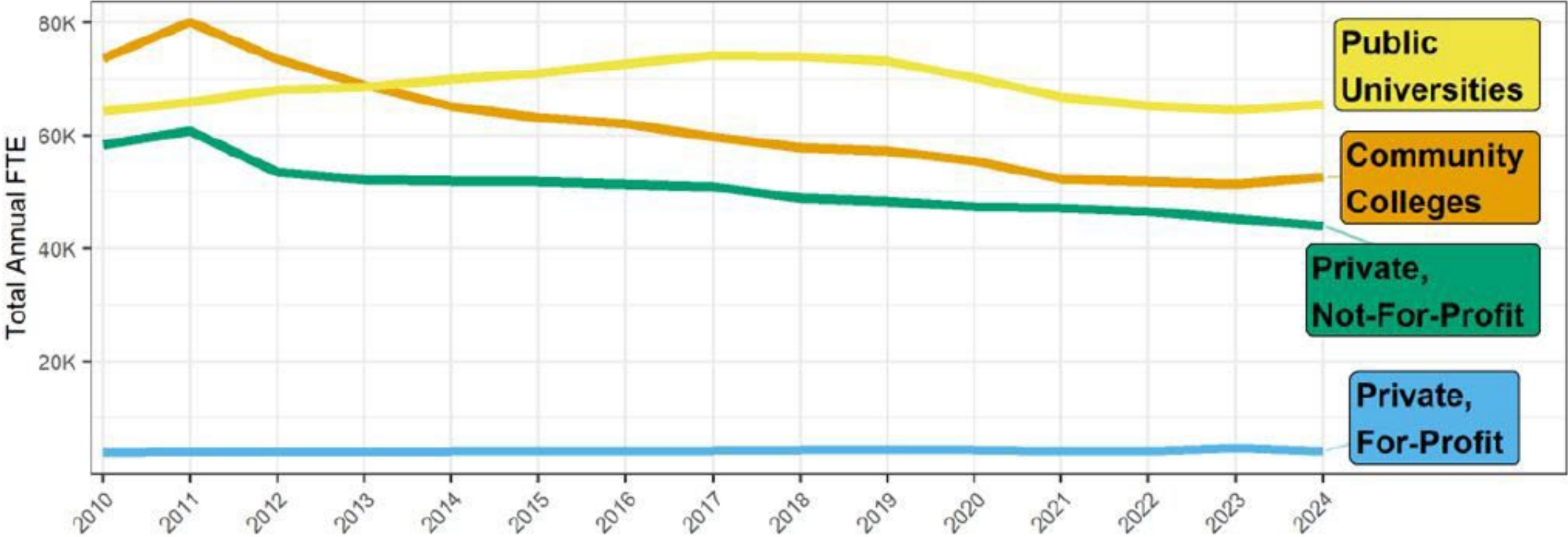
Figure 32. Postsecondary Institutions per 100,000 Residents Age 18+, by State



Sources: Numerator from NCES IPEDS Directory Information, HD2024 file. Denominator is 2025 Resident Population Age 18 Years and Older from the U.S. Census Bureau's Population Estimates. Notes: Includes only Title IV granting institutions. Online institutions primarily serving out-of-state students have been subtracted from state values.

Enrollment Trends, Demographics & Proximity: Enrollment

Figure 37. Iowa Postsecondary Enrollment by Sector of Institution



Source: NCES IPEDS 12-Month Enrollment Survey, files efiYYYY, 2010-2023 final release files; 2024 provisional release.

Enrollment Trends, Demographics & Access: Participation Rates

Figure 53. Participation by State, Age 18 to 24: Undergraduates as a Percent of Residents Without a Bachelor's Degree

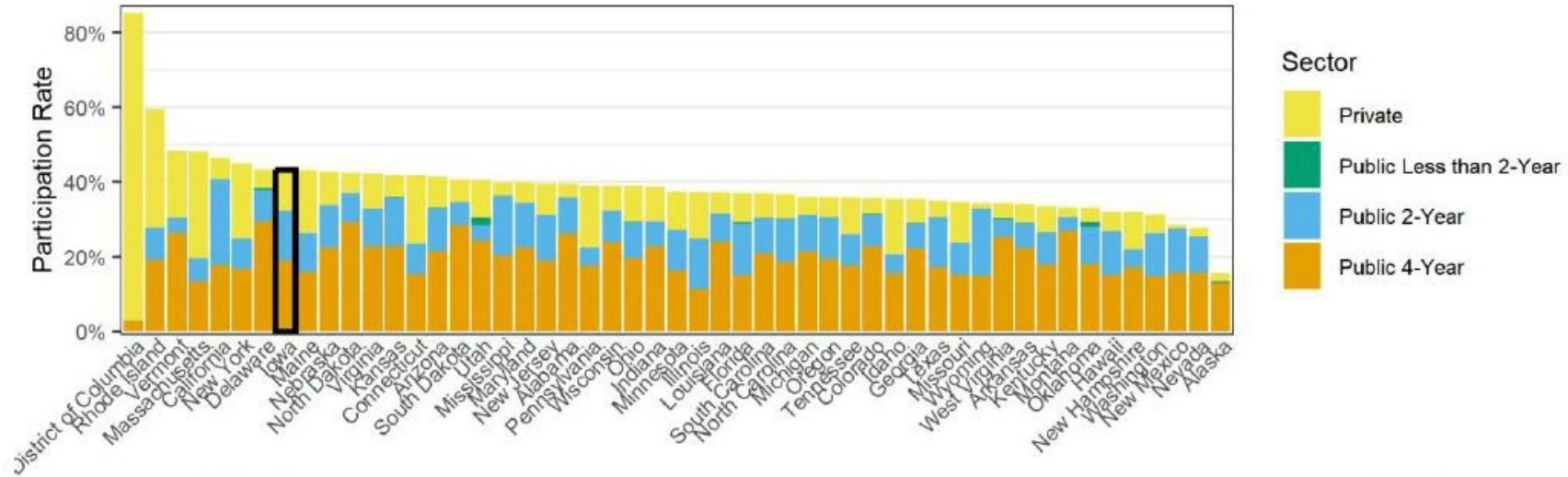
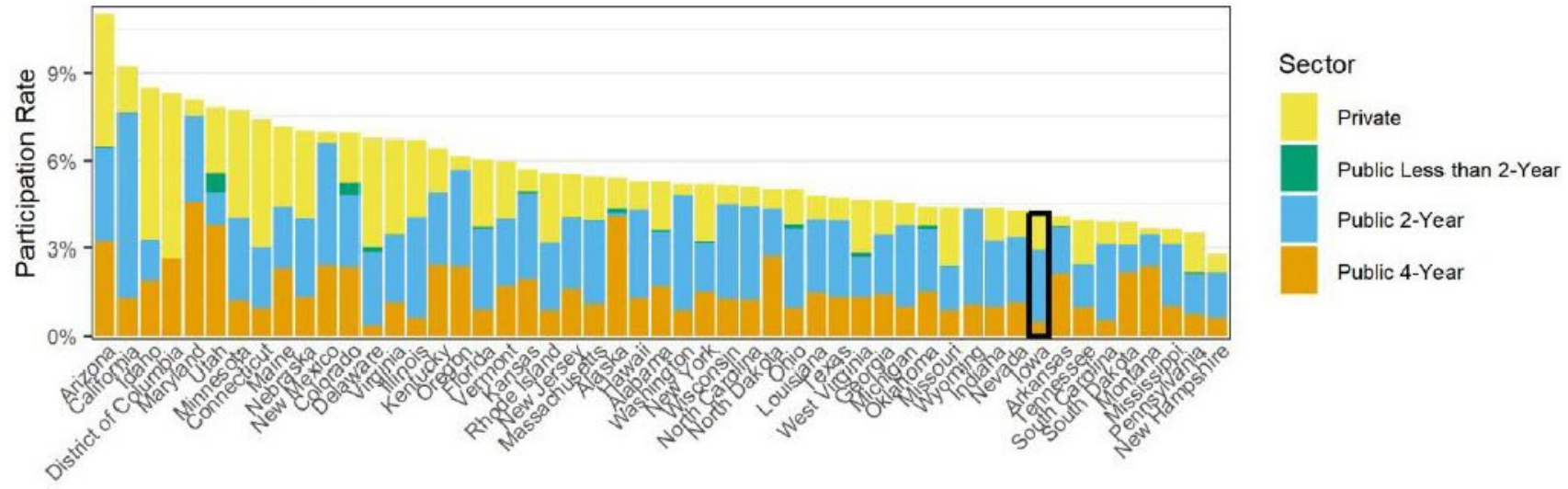


Figure 54. Participation by State, Age 25-49: Undergraduates as a Percent of Residents Without a Bachelor's Degree



Enrollment Trends & Changing Demographics: Age

Figure 42. Community College Degree-Seeking Enrollment by Age Group

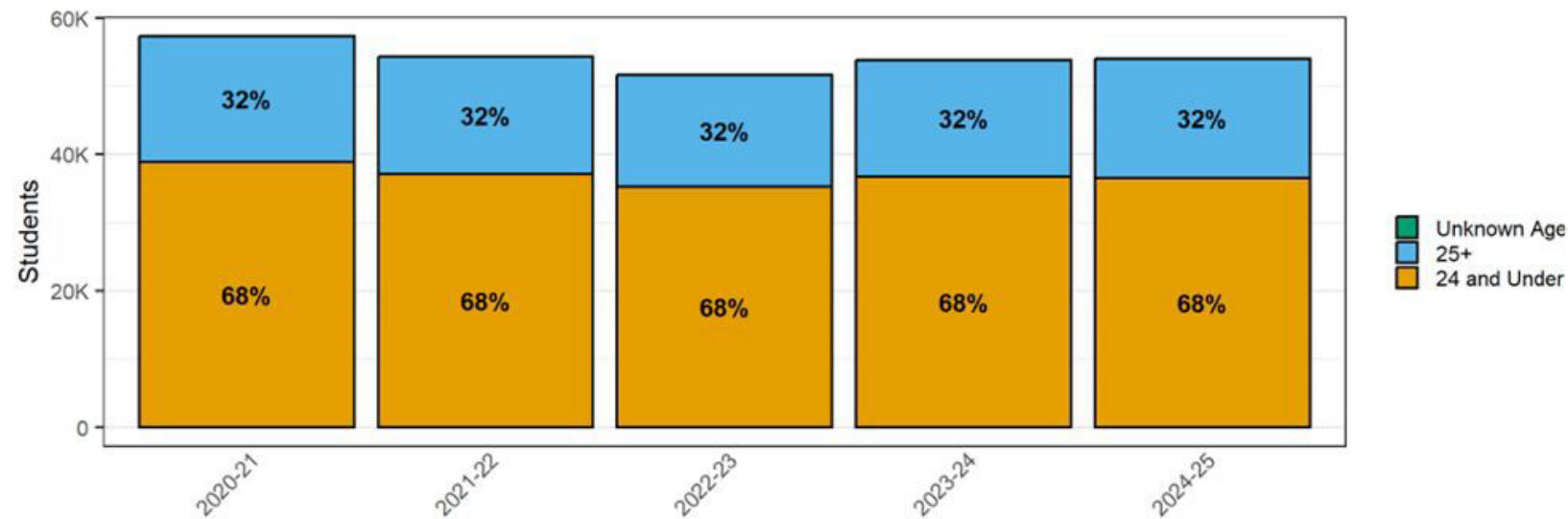
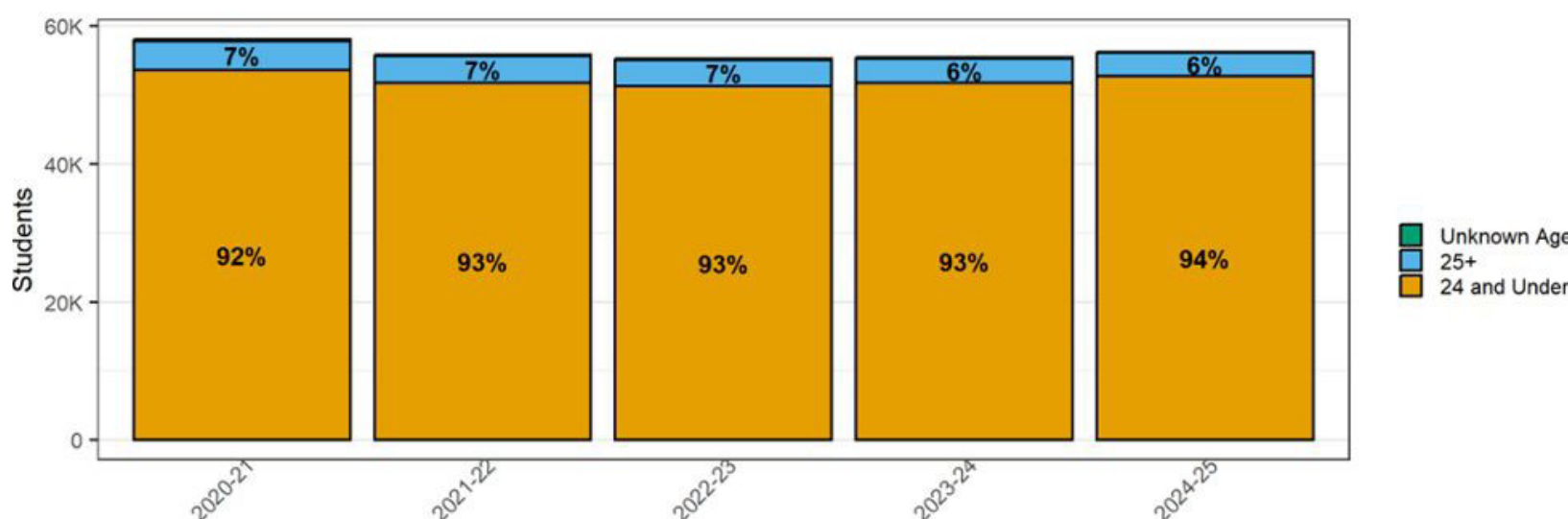


Figure 44. Public University Degree-Seeking Undergraduate Enrollment by Age Group



Enrollment Trends & Changing Demographics: Gender

Figure 43. Community College Degree-Seeking Enrollment by Gender

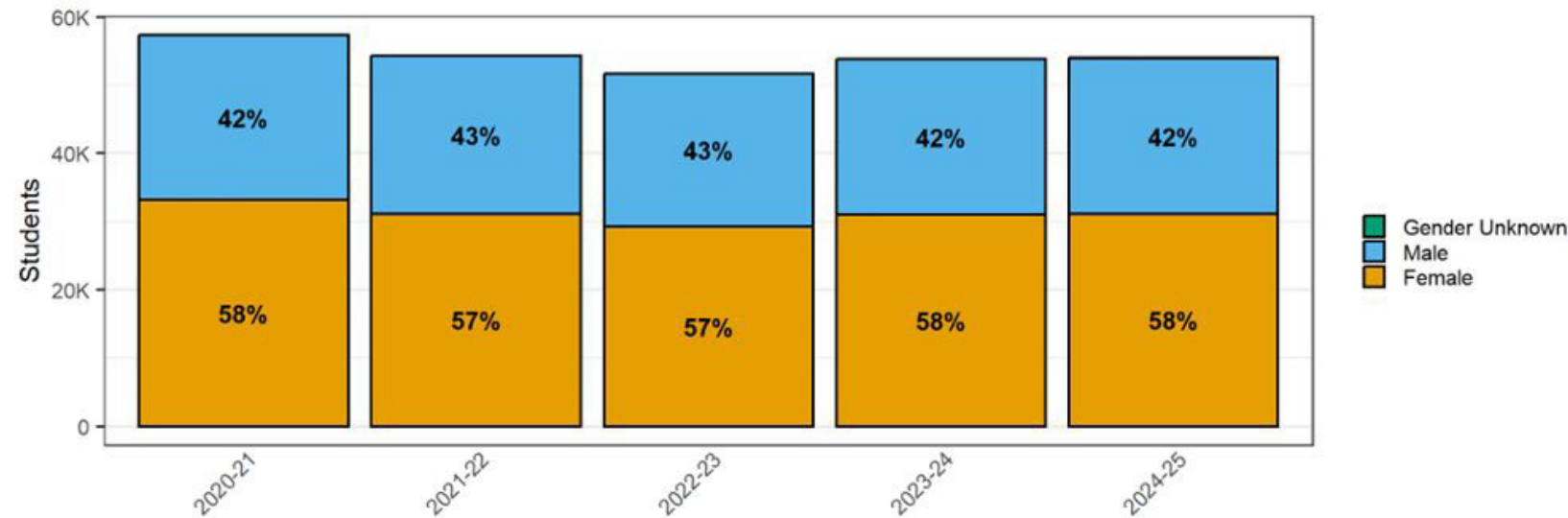
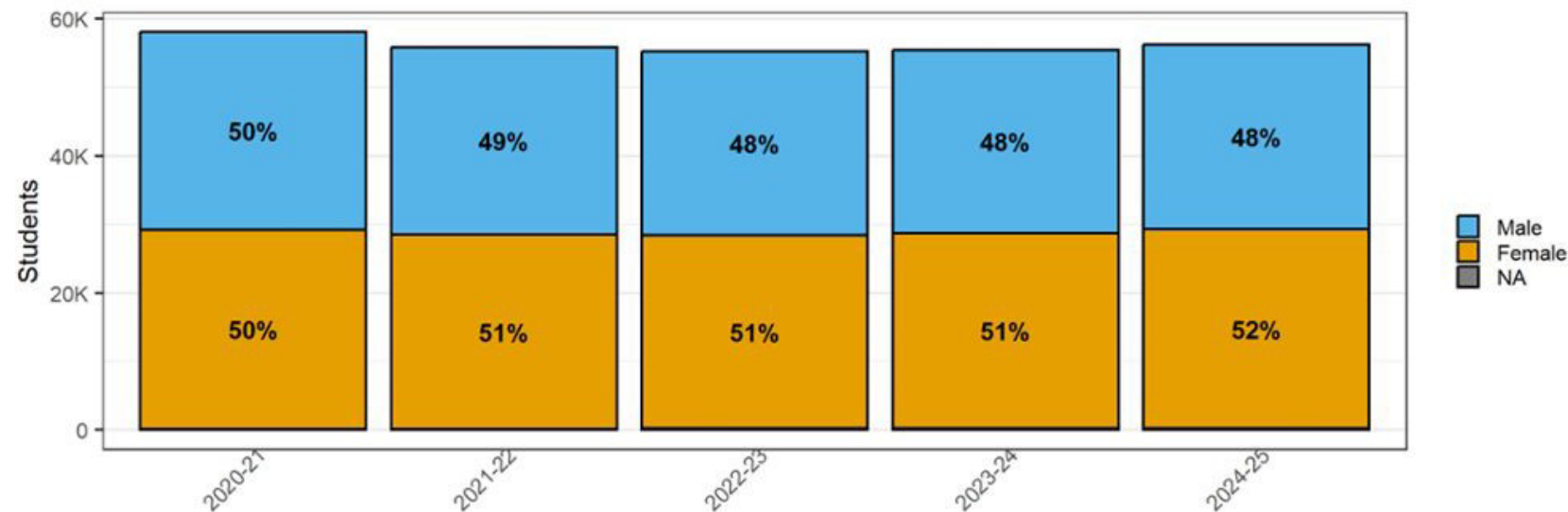
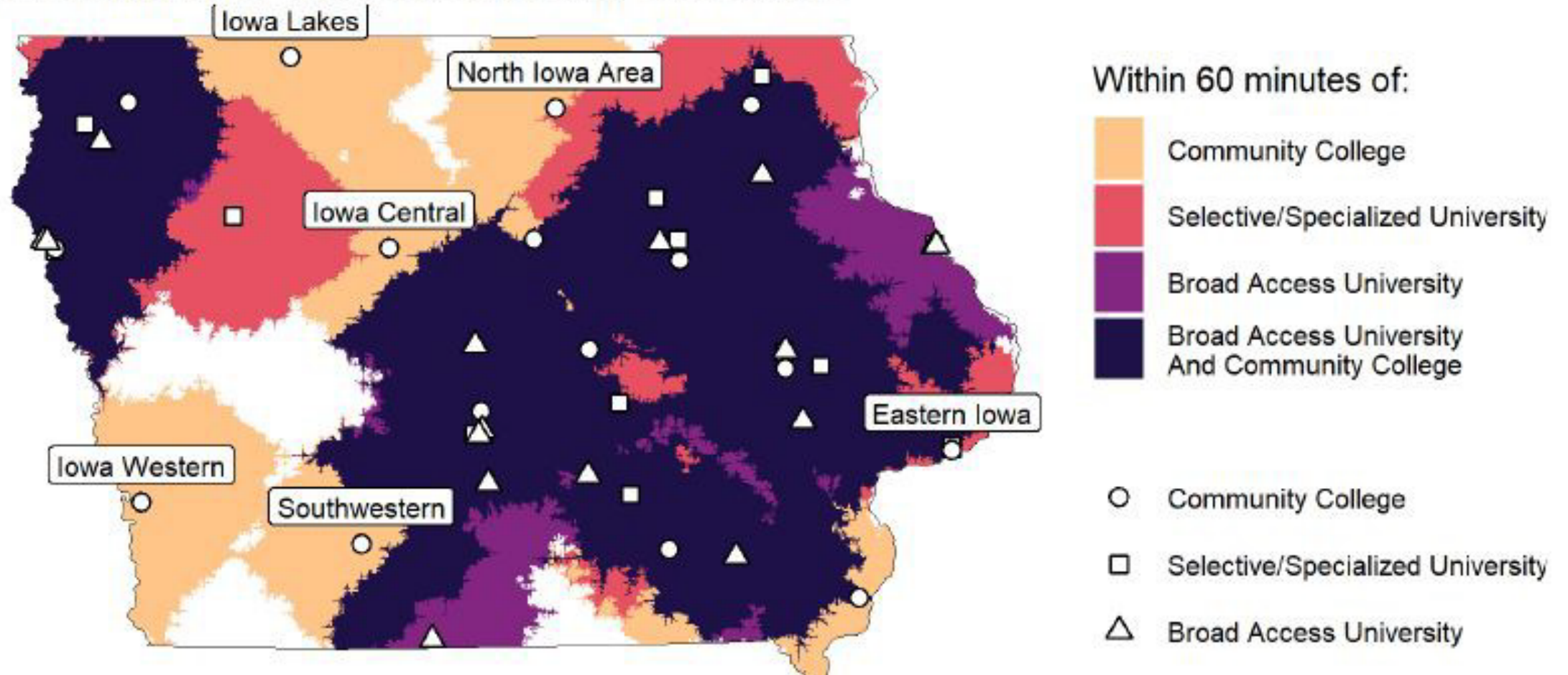


Figure 45. Public University Degree-Seeking Undergraduate Enrollment by Gender



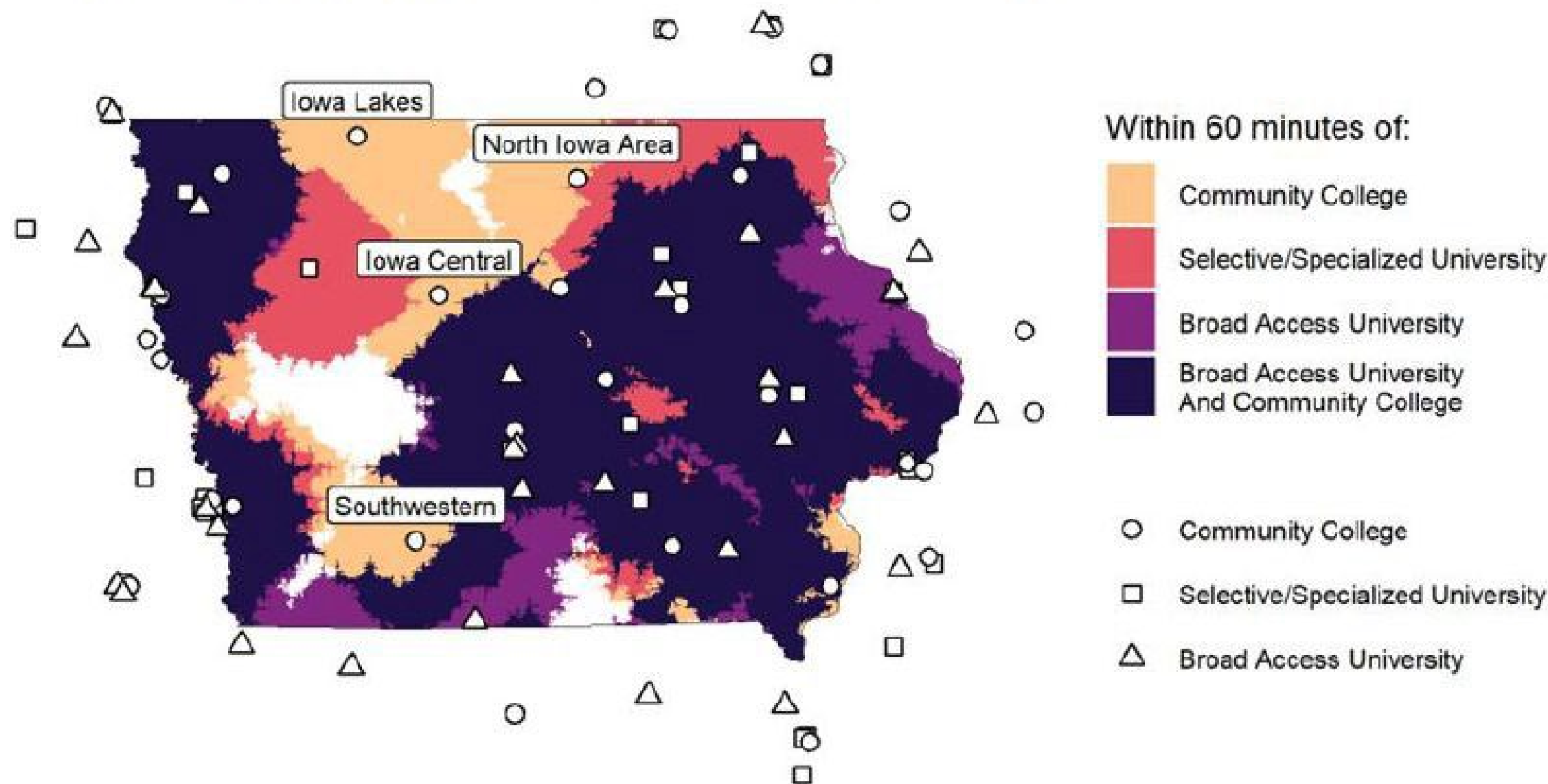
Enrollment Trends, Demographics & Access: Proximity

Figure 33. Proximity of Iowa Colleges and Universities



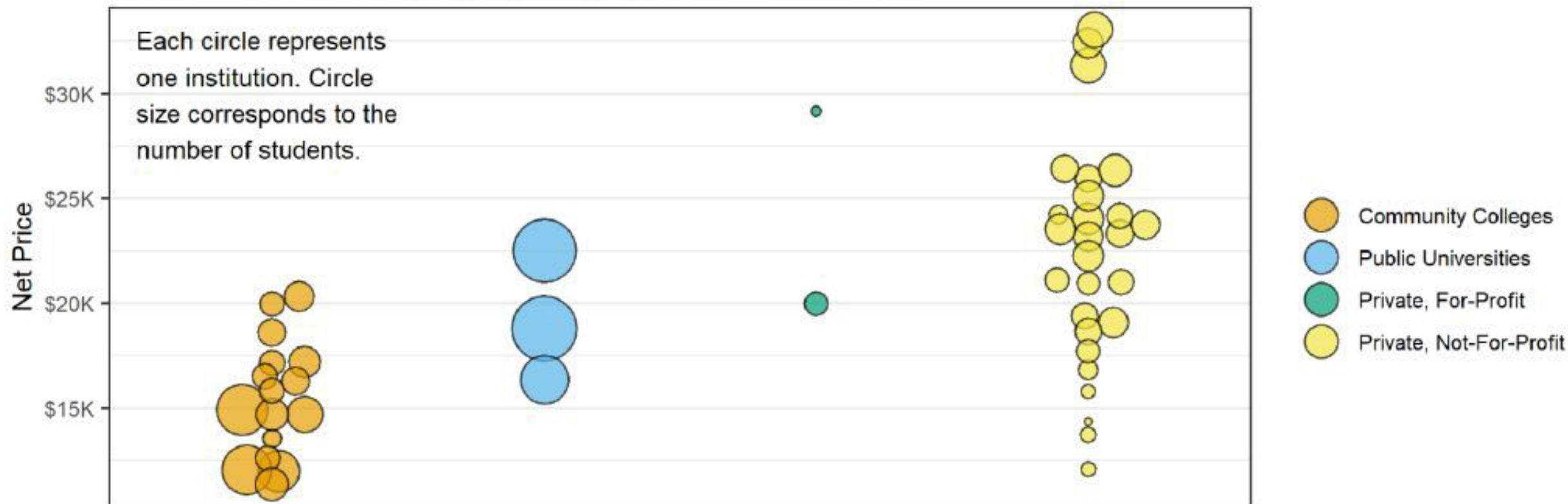
Enrollment Trends & Changing Demographics: Proximity

Figure 34. Proximity of Colleges and Universities in Iowa or Border States



Affordability & Delivery Modality: Net Price Distribution

Figure 56. 2023-24 Iowa Institutions' Net Price Distribution



Source: NCES IPEDS Student Financial Aid and Net Price Survey and Cost Survey, sfa2324, cost1_2024 and cost2_2024 provisional release files. Net price is calculated for the cohort of first-time-in-college, full-time, degree/certificate-seeking undergraduates who were awarded title IV federal student aid. For public institutions the cohort is further restricted to those paying the in-state or in-district tuition rate. Net price is the total cost of attendance (including tuition, fees, food, housing, books, supplies, and other expenses) minus the average amount of grant and scholarship aid from federal, state or local governments, or institutional sources, awarded to students in the cohort. Costs of attendance are based on on-campus living expenses for Public Universities and Private Not-For-Profit Institutions. They are based on off-campus, not with family living expenses for Community Colleges and Private For-Profit Institutions.

4. Where are the strengths and weaknesses in Iowa's education-to-work pipeline?

Where are the strengths and weaknesses in Iowa's education-to-work pipeline?

Pipeline & Enrollment Bottlenecks

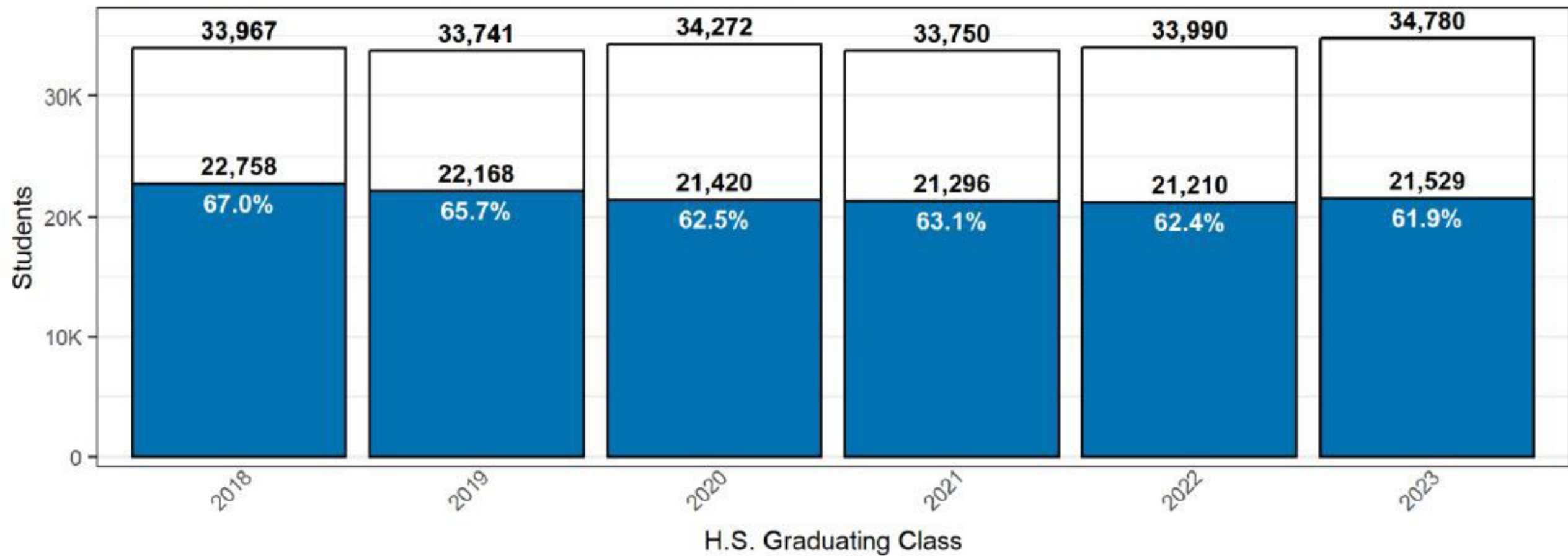
- As is typical elsewhere in the nation, the rate at which Iowa high school graduates enroll immediately in college has declined
- The number of degrees awarded by Iowa colleges and universities, at all levels, has declined in recent years
- Awards in the health professions, already the most numerous across Iowa, grew most over the past decade
- About 60% of Iowa community college graduates, and 40% of Iowa public university graduates, are employed in Iowa five years after graduation
- One-third of students who complete a transfer-oriented associate degree at a CC do not subsequently transfer to a four-year institution, and transfer rates have not improved in recent years

Curricular Shifts Aligning to Workforce

- Iowa has emphasized WBL in recent years. Stakeholders shared examples of efforts to incorporate more WBL and registered apprenticeship opportunities into their curriculum
- The number of awards conferred in the health professions and business disciplines grew

Pipeline & Enrollment Bottlenecks: College-Going Rates

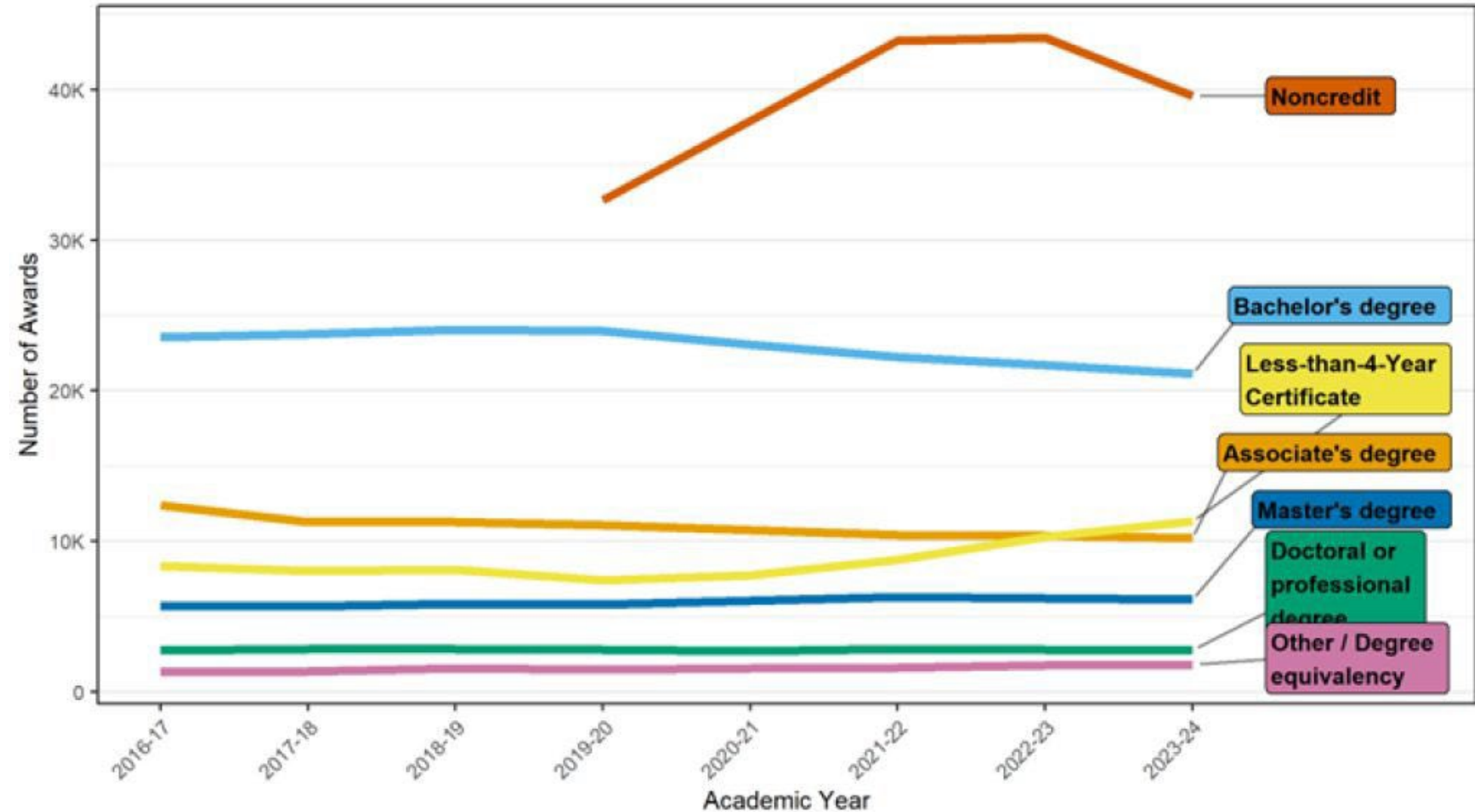
Figure 57. Direct from High School College-Going Rates



Source: Iowa Department of Education's Iowa High School Readiness Reports. Note: Represents public high school graduates who enrolled in postsecondary education or training within one year of high school graduation.

Pipeline & Enrollment Bottlenecks: Completion of Degrees and Certificates

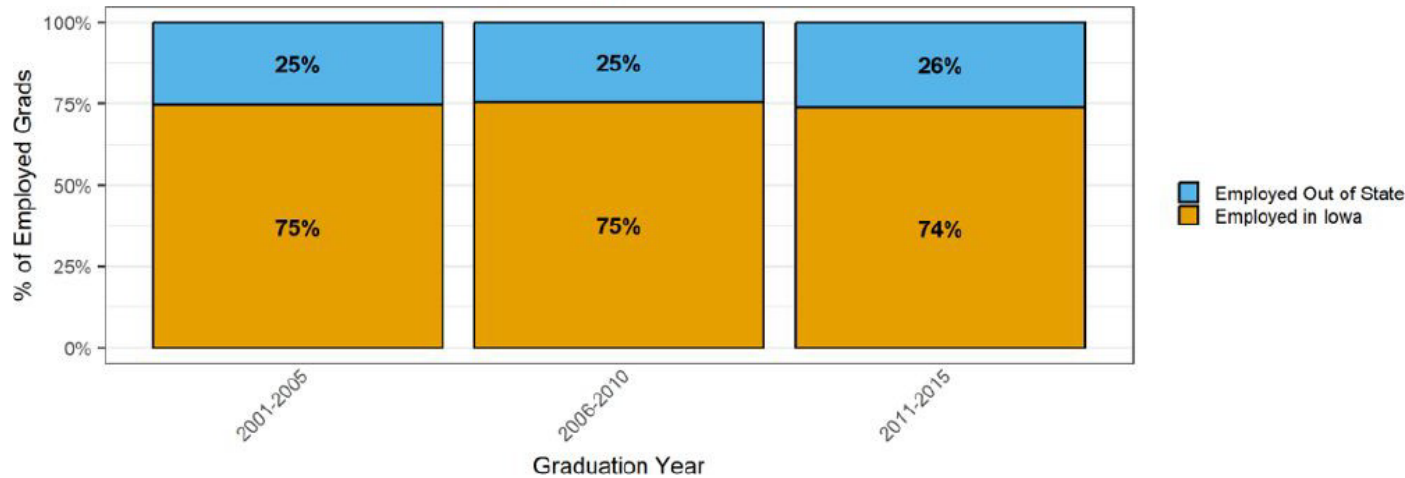
Figure 61. Awards by Level, All Iowa Institutions



Source: Iowa Department of Education, Iowa Board of Regents, and NCES IPEDS Completions Survey, files cYYYY_a, 2016–2023 final release files, 2024 provisional release.

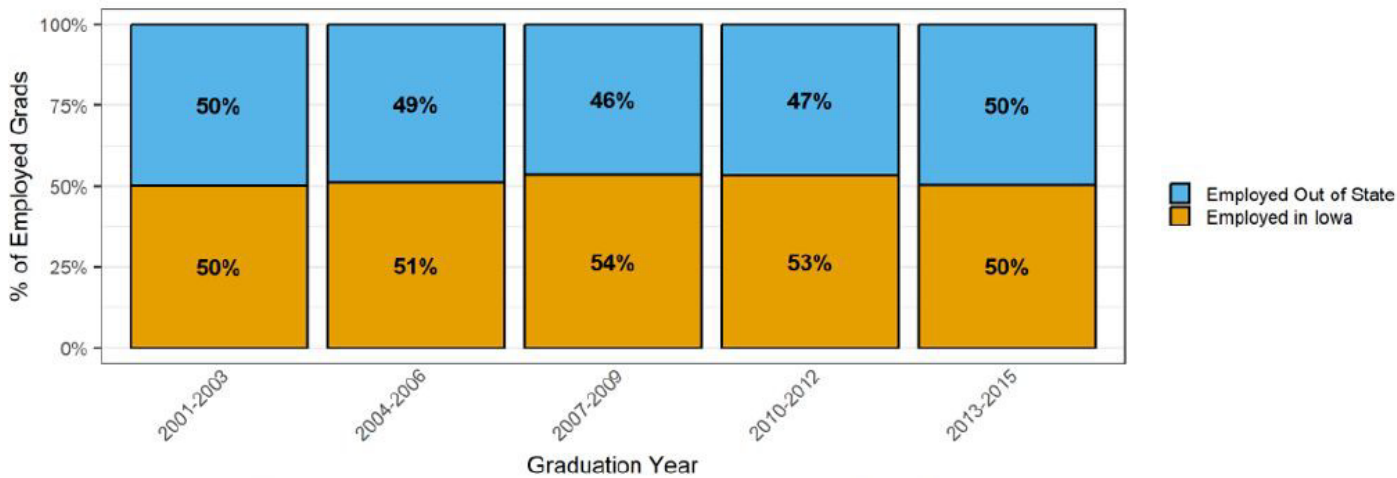
Pipeline & Enrollment Bottlenecks: Post-Graduation of Degrees and Certificates

Figure 69. Employment Location 5 Years Post-Graduation of Employed Associate Degree Graduates from Iowa Community Colleges



Source: U.S. Census Bureau's Postsecondary Employment Outcomes (PSEO). Excludes graduates without UI wage records, those who had 2 or more quarters of no earnings in the reference year, or who earned less than the annual equivalent of full-time work at the prevailing federal minimum wage.

Figure 71. Employment Location 5 Years Post-Graduation of Employed Bachelor's Degree Graduates from Iowa Public Universities



Source: U.S. Census Bureau's Postsecondary Employment Outcomes (PSEO). Excludes graduates without UI wage records, those who had 2 or more quarters of no earnings in the reference year, or who earned less than the annual equivalent of full-time work at the prevailing federal minimum wage.

Pipeline & Enrollment Bottlenecks: Transfer

Figure 64. Percent of First-Time Iowa Community College Students Who Transferred Within 3 Years

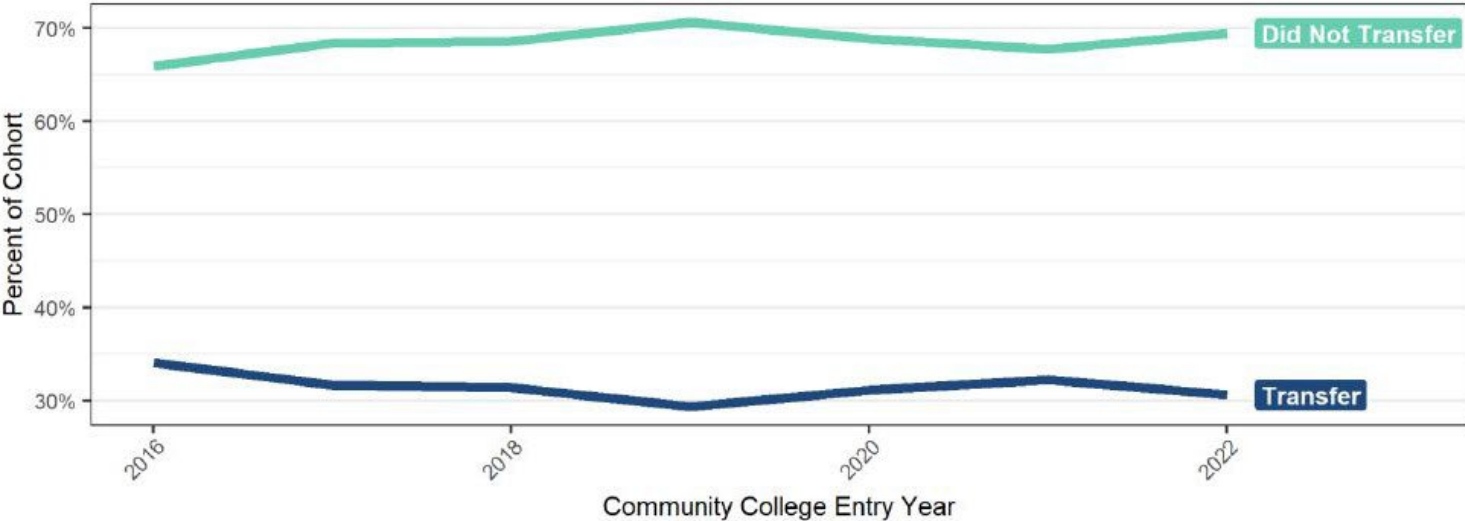
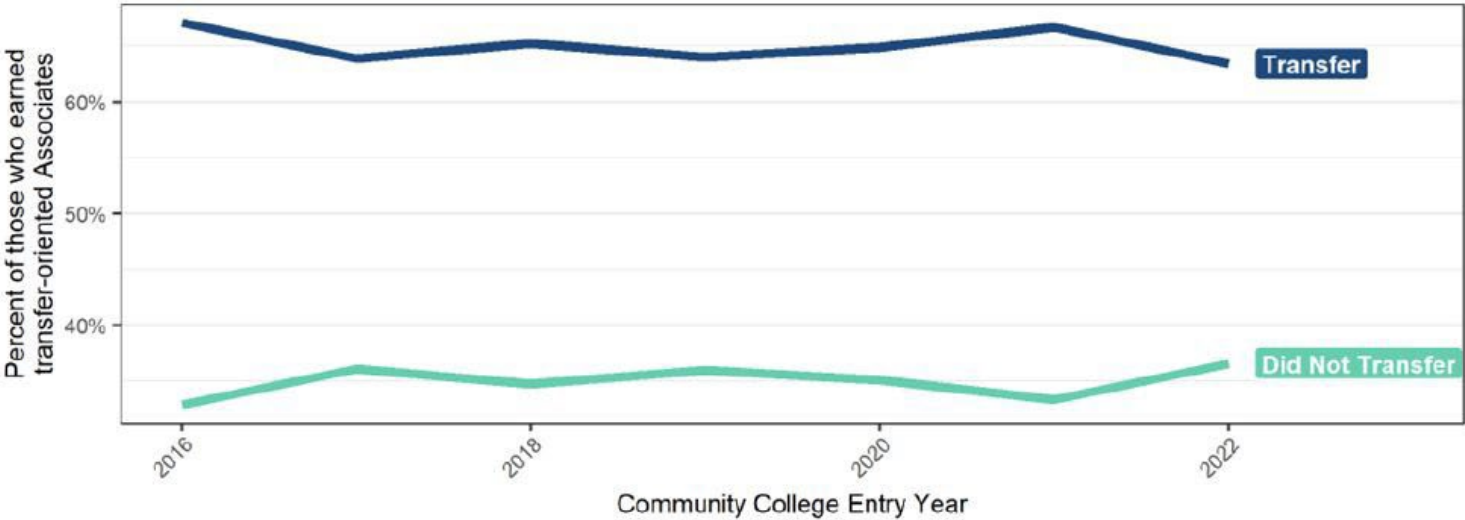
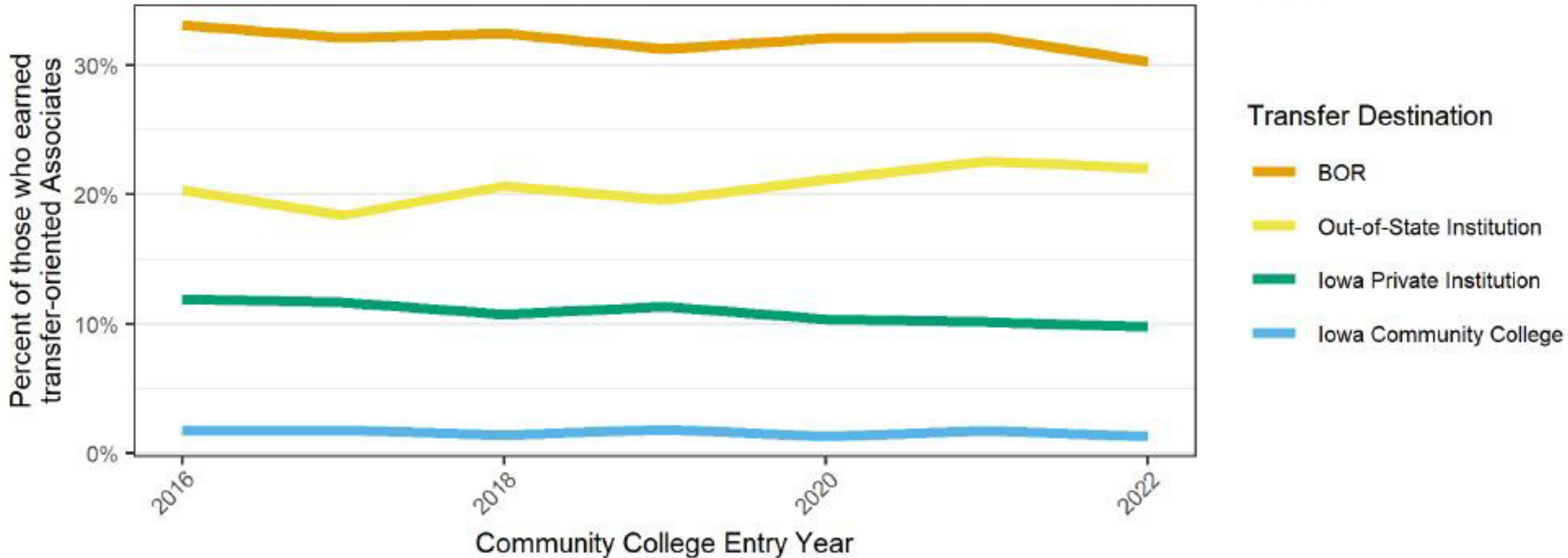


Figure 65. Percent of First-Time Iowa Community College Students Who Transferred Within 3 Years, of Those Who Earned a Transfer-Oriented Associate Degree



Pipeline & Enrollment Bottlenecks: Transfer

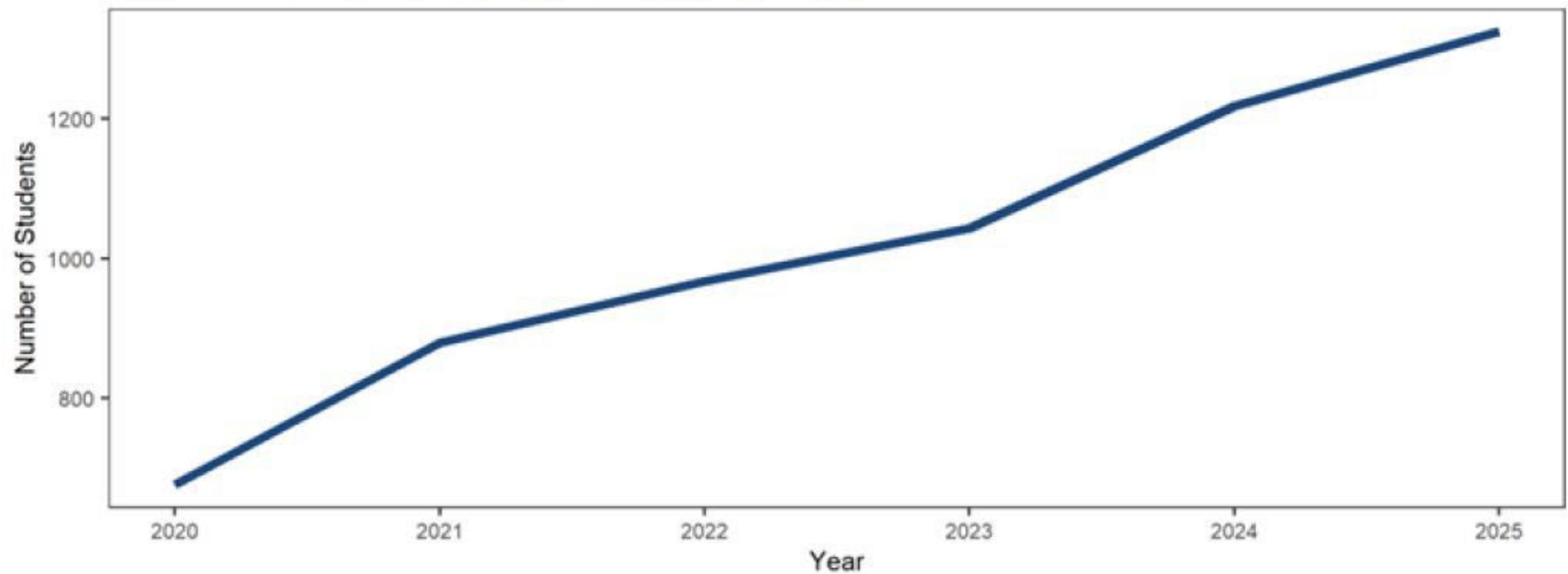
Figure 66. Percent of First-Time Iowa Community College Students Who Transferred Within Three Years, of Those Who Earned a Transfer-Oriented Associate Degree, by Transfer Destination



Source: Iowa Department of Education. Notes: Starting cohort includes all first-time, full-time students as of Fall term of an Academic Year. Transferred = enrolled in a transfer institution within three years of the student's cohort term, and the earliest enrollment in the transfer institution is after the latest enrollment in the original institution.

Curricular Shifts Aligning to Workforce: Registered Apprenticeships

Figure 58. Total Enrolled in Registered Apprenticeships



Source: Iowa Department of Education.

5. What is the alignment—or misalignment—between educational supply and workforce demand?

What is the alignment—or misalignment—between educational supply and workforce demand?

Education to Workforce Alignment

- There do not appear to be widespread shortages in appropriately educated talent
- Business/management occupations and accountants seem to be the largest areas in which educational supply is lower than labor market demand
- The data do not show an undersupply of graduates in either nursing or elementary/secondary education
- There is an unmet need for preschool teachers, though early childhood degrees may not produce a return on investment for students, since wages in this profession are low

Education to Workforce Alignment: Supply-Demand Analysis

Figure 77. Top 10 Iowa Jobs that Require Postsecondary Education by Average Annual Openings and Related Educational Supply

