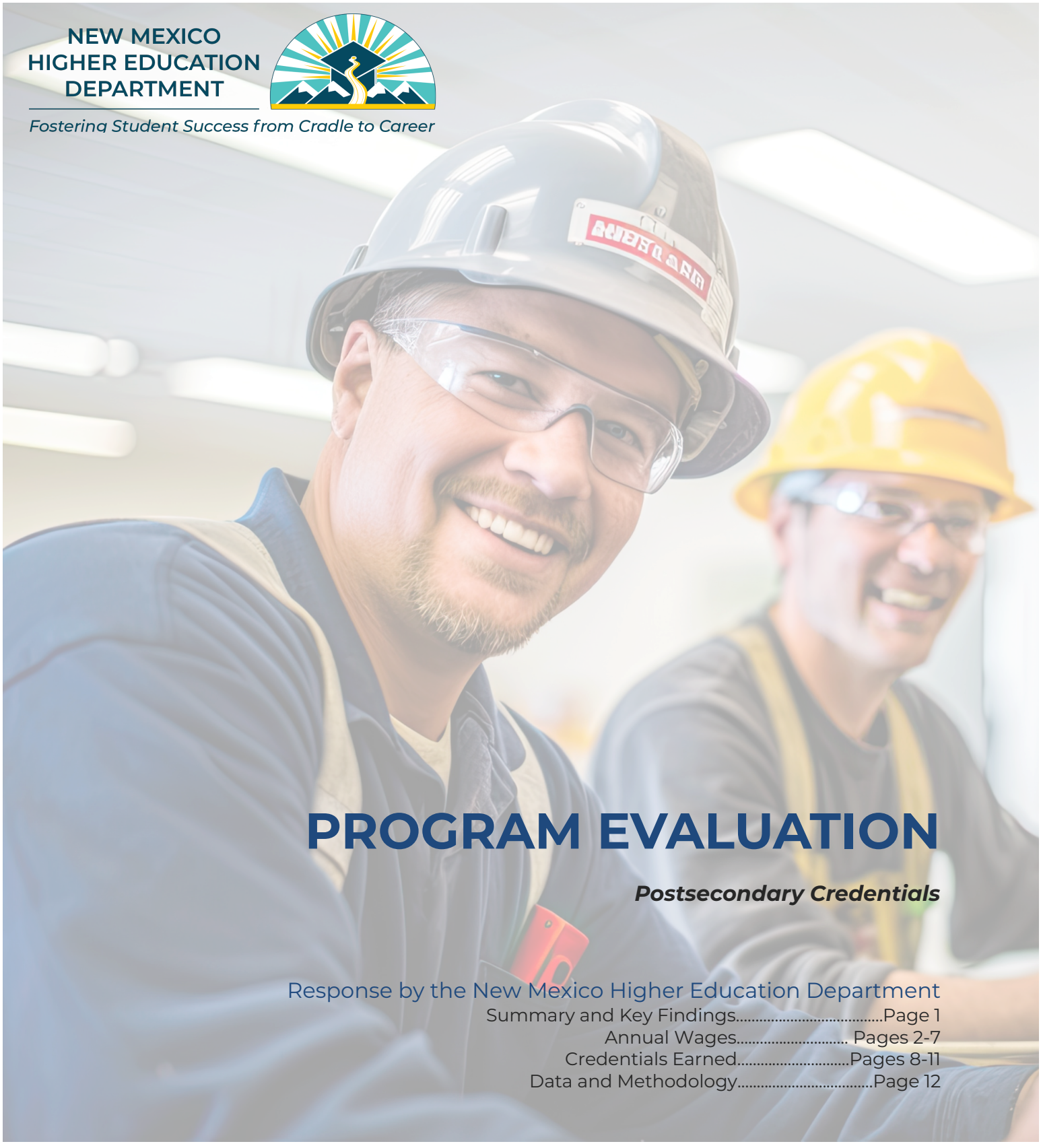
NEW MEXICO
HIGHER EDUCATION
DEPARTMENT

Fostering Student Success from Cradle to Career



PROGRAM EVALUATION

Postsecondary Credentials

Response by the New Mexico Higher Education Department

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Postsecondary Credentials

Findings from Higher Education and Workforce Data

Summary

The New Mexico Higher Education Department (NMHED) explored undergraduate credential and wage data requested by the Legislative Finance Committee (LFC) for their program evaluation titled “Postsecondary Credentials” from our agency and the New Mexico Department of Workforce Solutions (NMDWS). Through analyzing these combined datasets, NMHED looked at the pre- and post-credential completion median annual wages for credential recipients, how these wages varied by credential type and credential program, how these wages varied by student characteristics, and how credentials were distributed by type and student characteristics. This analysis helped NMHED better understand the data and provides a foundation for discussing credentials and their potential value in terms of wage returns to New Mexicans.

Key Findings

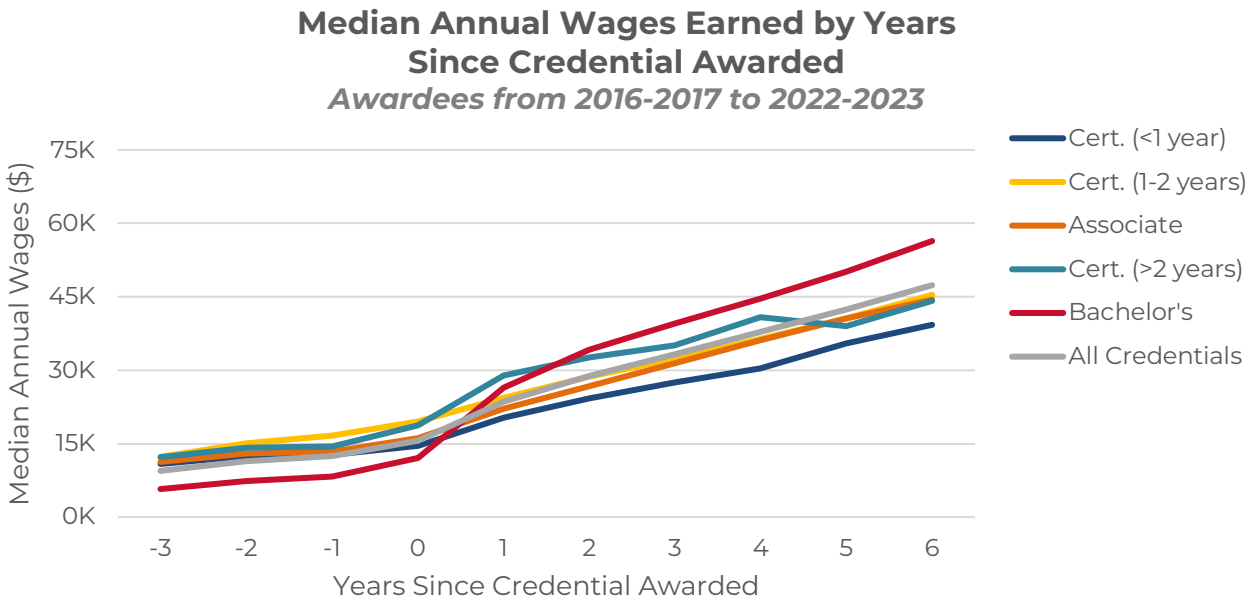
- **Median annual wages varied by credential type**. Aligning with findings from the broader literature, longer form credentials, such as bachelor's and associate degrees, generally had greater wage returns over time than shorter form credentials such as certificates.
- Median annual wages generally followed these trends by student characteristics, although **gaps in median wages were present between peer subgroups**. For example, male students generally had higher median annual wages than their female peers, and Native American students generally had lower median annual wages than their Hispanic and White peers.
- **Median annual wages varied by program area**. Some program areas, such as Computer and Information Sciences, had notably higher wage returns, even for shorter form credentials. Other program areas, like Agriculture and Agriculture Operations, while still seeing growth in median annual wages over time, had smaller returns.
- Due to the variability between programs and how credentials are leveraged by students, **some shorter form credential programs had median annual wages that rivaled and even exceeded those of bachelor’s degrees** within and across program areas.
- **Certificate programs of one to two years in length saw a sharp increase in 2022-2023** while other credential types continued to see declines. The largest driver of this growth for one- to two-year certificates were in Liberal Arts and Sciences.
- **The distribution of credential types amongst student subgroups varied**. A few notable examples include:
    - Male students were less likely to earn credentials overall but had a higher likelihood of earning certificates of more than two years and certificates of less than one year than their female peers.
    - Native American students were substantially less likely to earn bachelor’s degrees than other types of credentials.
    - Pell recipients were less likely to earn shorter form credentials than non-Pell recipients but made up a slight majority of associate degree earners and had an even split with their non-Pell peers for bachelor’s degrees.

Annual Wages

Overall

Prior to earning an award, median annual wages for students were low, regardless of credential type later received. Median annual wages for students who later earned bachelor's degrees were particularly low prior to the year of credential award, likely due to a higher share of students who were dependents and students who were enrolled with higher credit loads.

Upon being awarded credentials, wages increased for students receiving all credential types. This increase was greatest for those earning bachelor's degrees and smallest for those earning certificates of less than one year. Bachelor's degree awardees continued to see greater growth in wages compared to other awardees as students were further removed from the year their credential was awarded. These findings align with the broader literature on wage returns to credentials by credential type.



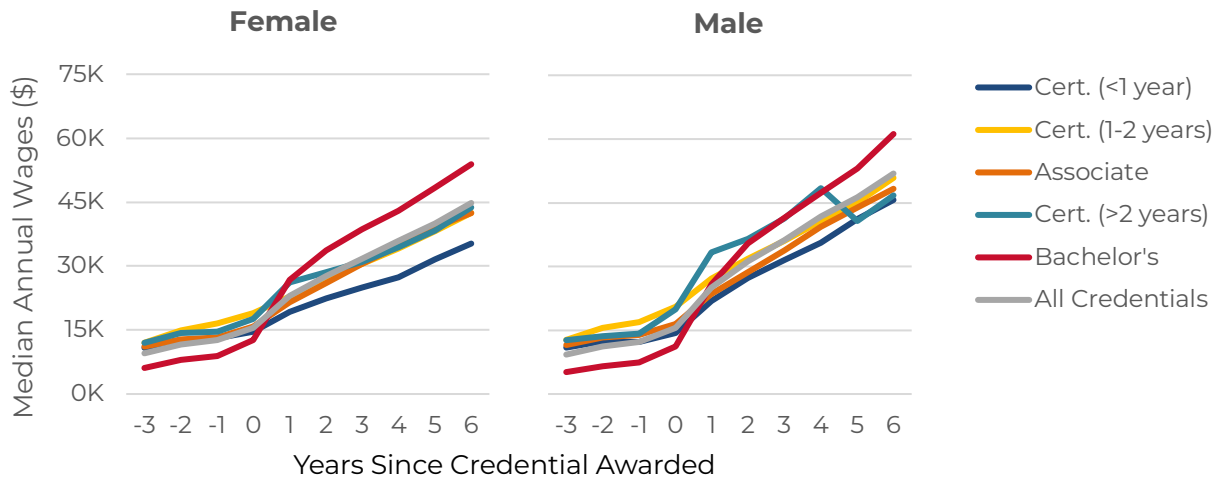
Note: "Years Since Credential Awarded" is calculated by subtracting the Academic Year (AY) from the Fiscal Year (FY) then subtracting one to account for the difference in naming convention. For example, at the x-axis value of 0, students earning a credential in AY2022 (summer 2022 to spring 2023) have their wages from FY2023 (July 2022 to June 2023) reported. Negative values are years prior to the awarding of a given credential.

By Gender

By gender, male students had higher median annual wages for all credential types six years after receipt of their credential than their female peers. Median annual wages for females were more stratified across credential types while the median annual wages of their male peers were more tightly clustered after six years.

Median Annual Wages Earned by Years Since Credential Awarded and Gender

Awardees from 2016-2017 to 2022-2023

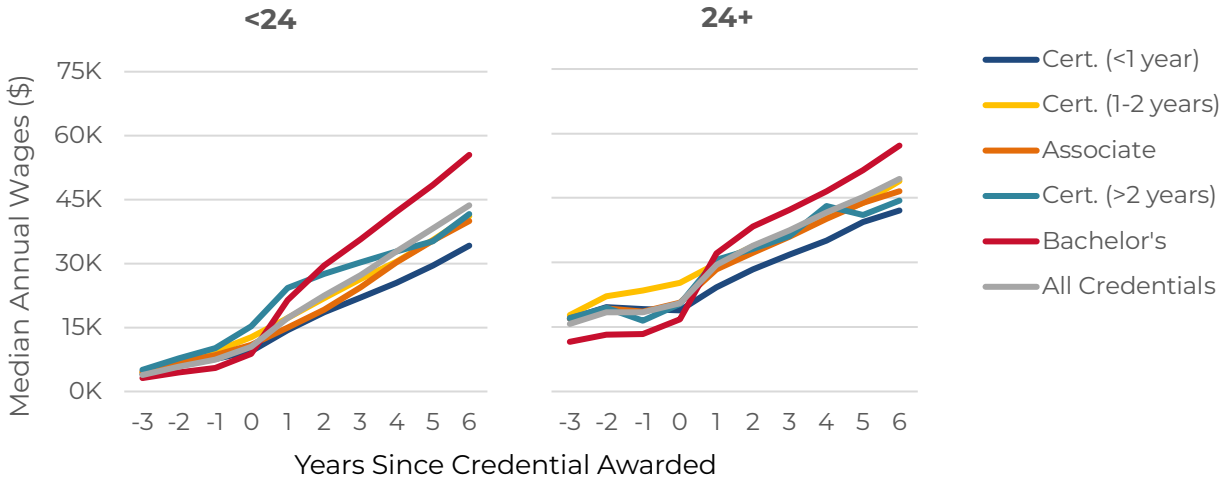


By Age Bracket

By age bracket, students who were 24 years or older in the year they received their credential had higher median annual wages than their younger peers. Older awardees had slightly less differentiation in median annual wages across credential types than younger awardees as well. It seems likely that older awardees' longer pre-existing work histories were a meaningful factor in their elevated wages relative to their younger peers.

Median Annual Wages Earned by Years Since Credential Awarded and Age Bracket

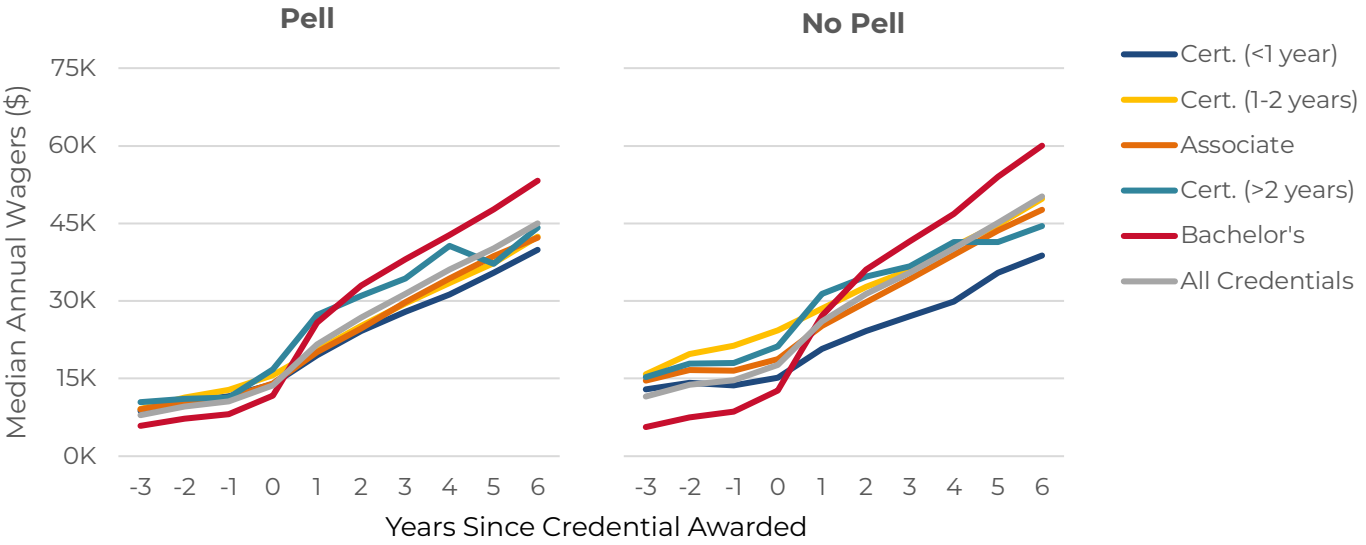
Awardees from 2016-2017 to 2022-2023



By Pell Status

By Pell status, median annual wages for Pell recipients[1] were generally lower than those of their peers who were not Pell recipients. This gap was largest at the bachelor's degree level. However, Pell recipients did have slightly higher median annual wages than their non-Pell receiving peers when looking at the shortest certificates.

Median Annual Wages Earned
by Years Since Credential Awarded and Pell Status
Awardees from 2016-2017 to 2022-2023



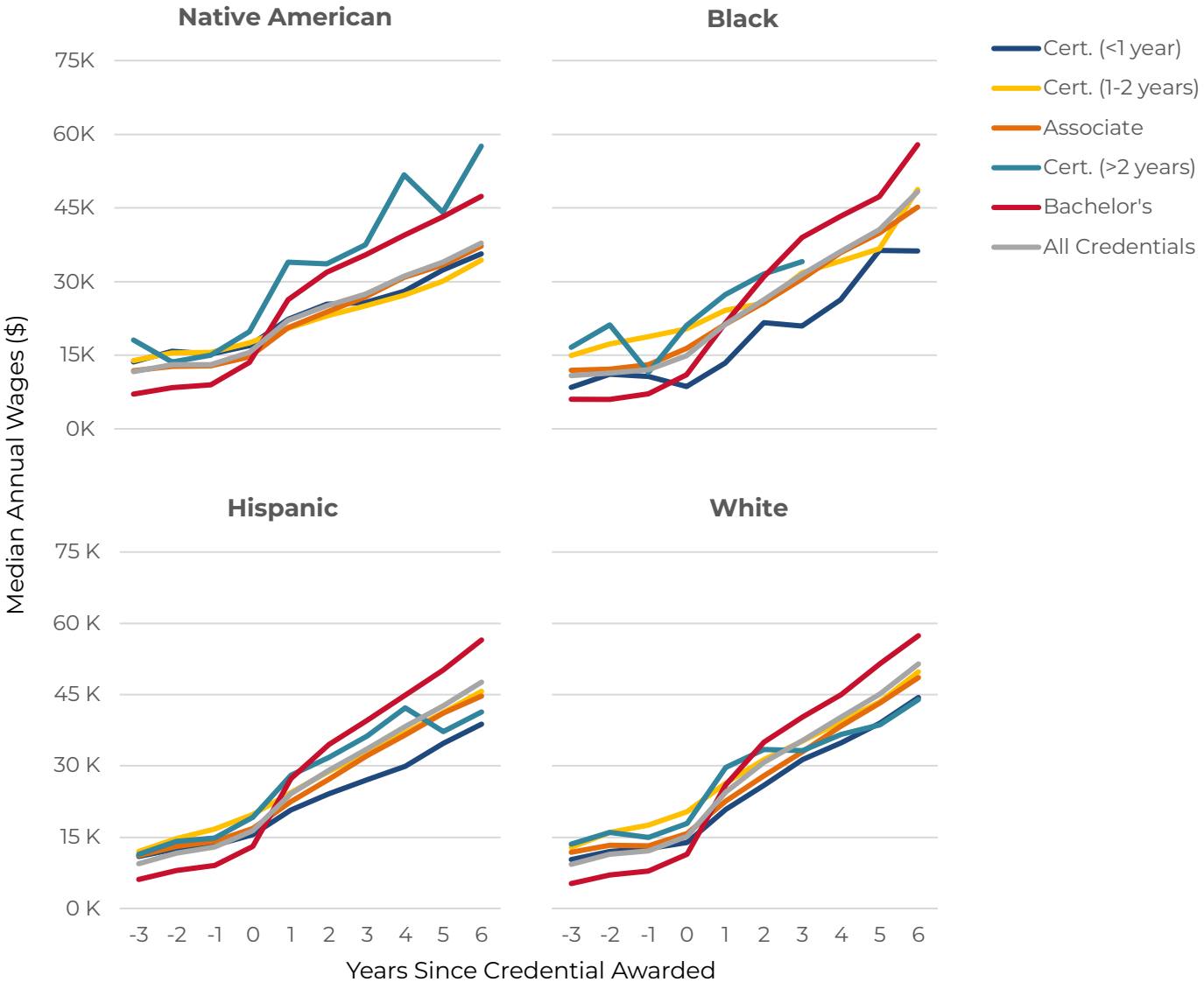
[1] Pell recipients were identified as students who had a Pell Grant in the academic year in which they earned their credential or in either of the prior two academic years.

By Race and Ethnicity

Median annual wages varied by race and ethnicity in addition to credential type. Native American students had generally lower median annual wages than their peers from other groups, regardless of credential type. While Hispanic and White students had similar median annual wages for bachelor's degree earners after six years, median annual wages for other credential types differed, with Hispanic awardees' wages lower and slightly more stratified for other credential types.

Median Annual Wages Earned by Years Since Credential Awarded and Race/Ethnicity

Awardees from 2016-2017 to 2022-2023



“New Mexico's workforce system is a cornerstone of the state's economic vitality, dedicated to equipping its residents with the skills and opportunities needed for individual success, and providing employers with access to skilled talent to drive economic growth.”

WIOA Combined State Plan (2024-2027)

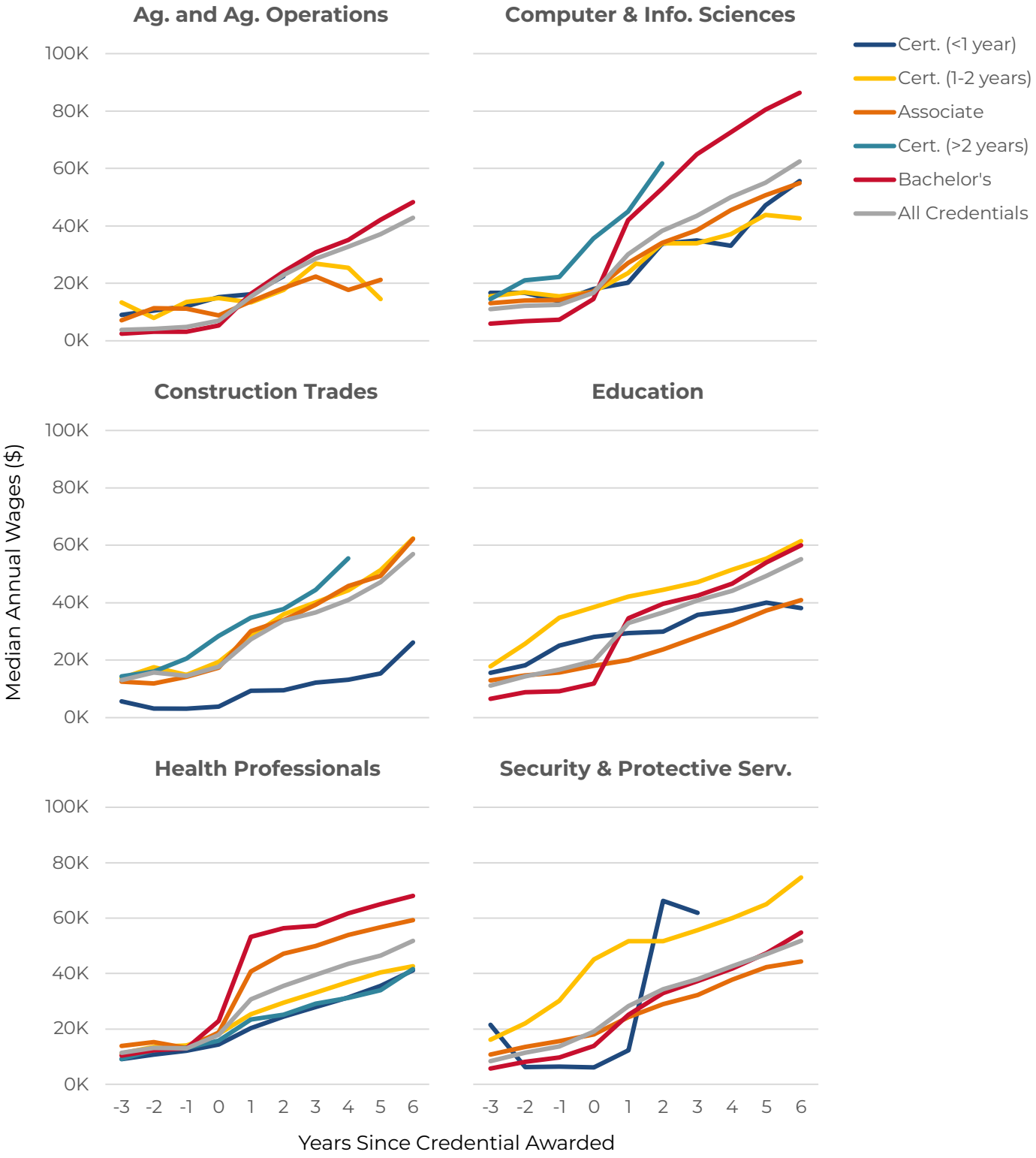
By Priority Areas (CIP2[2])

Exploring select priority credential program areas identified via the state’s Workforce Innovation and Opportunity Act (WIOA) Combined State Plan revealed the extent to which wage returns varied not only by credential level but also program area. Some program areas, such as Computer and Information Sciences had high wage returns, even for certificates of less than a year. At the same time, other areas had generally lower wage returns. For example, Agriculture and Agriculture Operations had wage returns across credential types which were noticeably lower. While there were some program areas where earnings followed a clear pattern based on credential level, such as Healthcare, others were less consistent. In two program areas (Education and Security and Protective Services) which did not have wage returns that followed the credential hierarchy, certificates of one to two years had higher earnings than even bachelor’s degrees. However, in these program areas, certificates of one to two years were most likely serving as additional, mid-career credentials for student already in the workforce and enhancing pre-existing wages.

[2] CIP codes (Classification of Instructional Programs) are six-digit values used to provide taxonomic structure to programs. CIP2 codes are the first two digits of these codes and provide the broadest program area description.

Median Annual Wages Earned by Years Since Credential Awarded for Select Program Areas

Awardees from 2016-2017 to 2022-2023



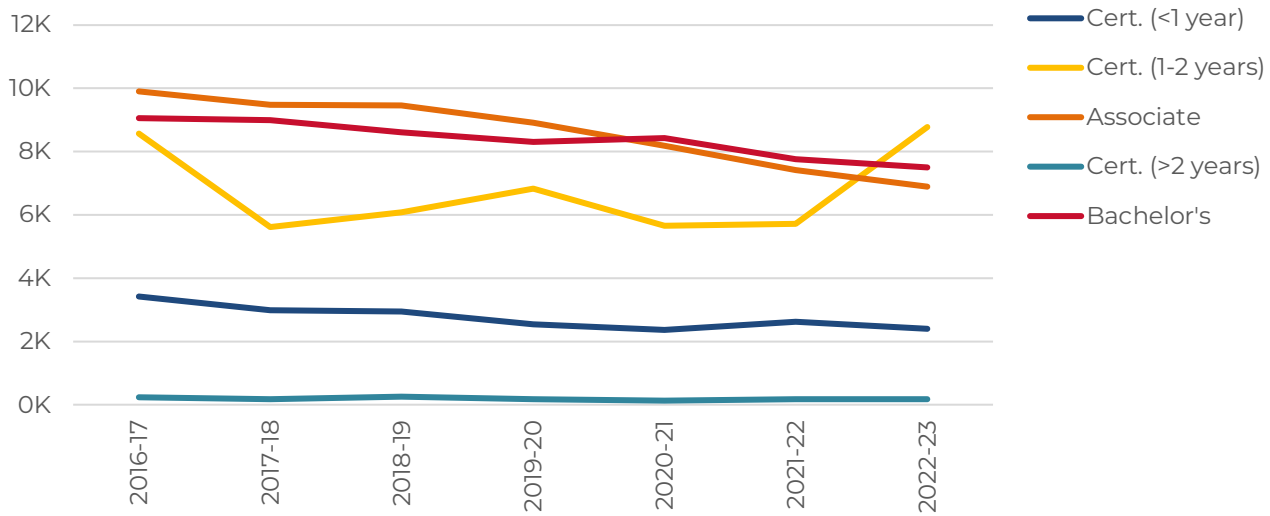
Note: Program areas included were identified through priority sectors listed in NMDWS's [WIOA State Plan Summary.](#) Included in this visual are program areas which have training at both the certificate and degree level. Not all program areas have each credential type available.

Credentials Earned

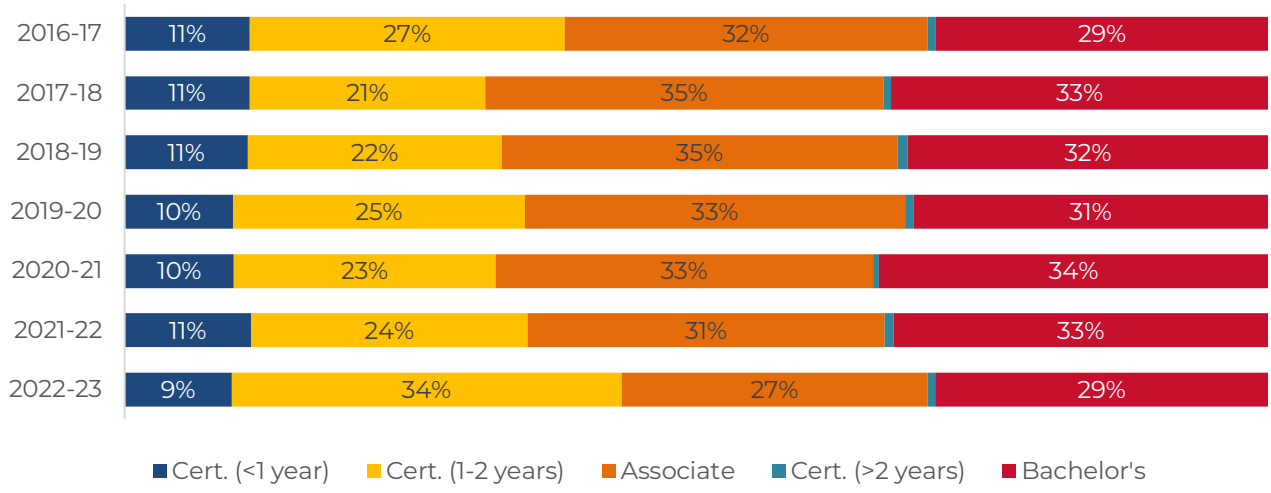
Overall

The number of credentials awarded declined over time across all credential types between 2016-2017 and 2021-2022. However, in 2022-2023, there was a substantial increase in certificates of one to two years, nearly rebounding to 2016-2017 levels. In the years preceding 2022-2023, certificates of one to two years never comprised more than 27 percent of all undergraduate credentials awarded. In 2022-2023, with the surge in production in these credentials, they comprised 34 percent of credentials awarded. A major driver of this increase in certificates was the awarding of certificates in Liberal Arts and Sciences which more than doubled from 2021-2022 to 2022-2023. Most of these awards were from Central New Mexico Community College although a substantial number were also awarded by San Juan College.

Undergraduate Credentials Earned by Academic Year
2016-2017 to 2022-2023



Share of Undergraduate Credentials by Type
2016-2017 to 2022-2023



Count of <2 Year Certificates Awarded by Program Area

2020-2021 to 2022-2023

Program Area by CIP2*	2020-21	2021-22	2022-23
Agricultural/Animal/Plant/Veterinary Science and Related Fields	144	246	113
Architecture and Related Services	≤5**	≤5	≤5
Business, Management, Marketing, and Related Support Services	766	675	675
Communication, Journalism, and Related Programs	28	21	18
Communications Technologies/Technicians and Support Services	≤5	15	14
Computer and Information Sciences and Support Services	187	175	205
Construction Trades	121	176	170
Culinary, Entertainment, and Personal Services	197	253	297
Education	441	420	318
Engineering/Engineering-Related Technologies/Technicians	437	572	398
English Language and Literature/Letters	14	12	6
Family And Consumer Sciences/Human Sciences	246	176	235
Foreign Languages, Literatures, and Linguistics	≤5	≤5	≤5
Health Professions and Related Programs	1,537	1,653	1,624
Homeland Security, Law Enforcement, Firefighting and Related Protective Services	100	220	224
Interpersonal and Social Skills	-	≤5	-
Legal Professions and Studies	31	25	13
Liberal Arts and Sciences, General Studies and Humanities	3,002	2,658	5,858
Library Science	≤5	-	-
Mathematics and Statistics	≤5	≤5	≤5
Mechanic and Repair Technologies/Technicians	200	315	330
Multi/Interdisciplinary Studies	18	18	12
Natural Resources and Conservation	≤5	-	≤5
Parks, Recreation, Leisure, Fitness, and Kinesiology	10	16	16
Precision Production	179	239	262
Public Administration and Social Service Professions	14	15	6
Science Technologies/Technicians	-	23	12
Social Sciences	19	25	7
Transportation and Materials Moving	266	249	239
Visual and Performing Arts	59	144	126
Total	**8,028**	**8,348**	**11,185**

Notes:

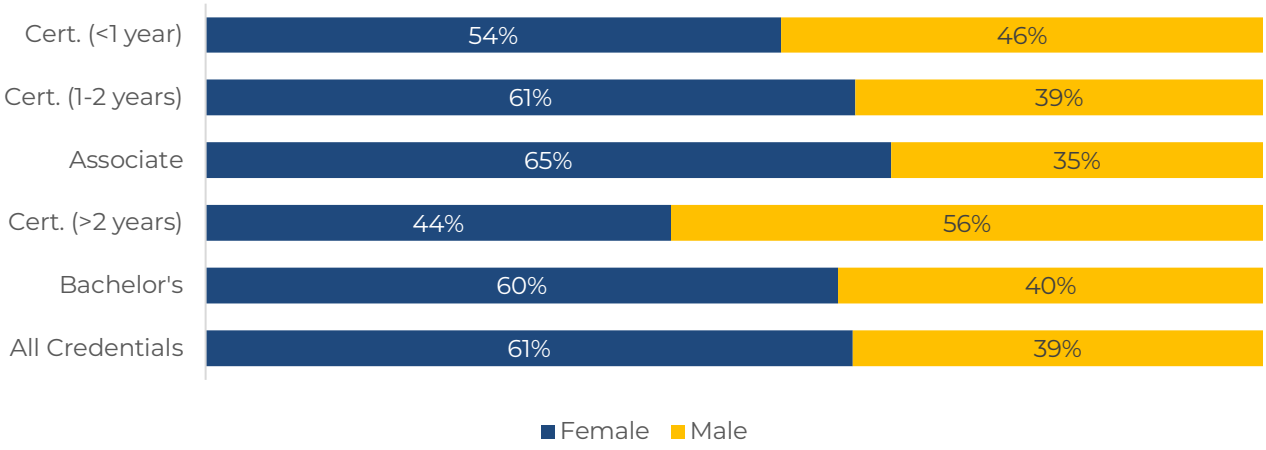
**CIP codes (Classification of Instructional Programs) are six-digit values used to provide taxonomic structure to programs. CIP2 codes are the first two digits of these codes and provide the broadest program area description.*

***Cell values totaling 5 or less have been suppressed to "≤5" to protect student privacy.*

By Gender

From the 2016-2017 to 2022-2023 academic years, the majority of credentials (over 60 percent) were earned by female students including by each type of credential except certificates of greater than two years. While not comprising the majority of awardees for credentials of this type, male students also made up a larger share of certificates of less than one year (46 percent) compared to other credential types where female students comprised the majority of awardees.

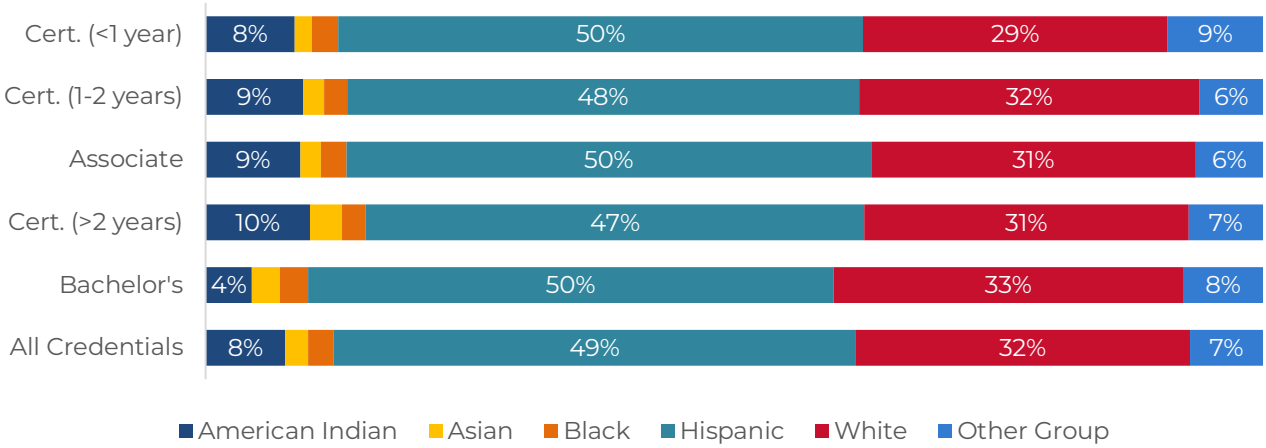
Share of Undergraduate Credentials by Credential Type and Gender
2016-2017 to 2022-2023



By Race and Ethnicity

Between the 2016-2017 and 2022-2023 academic years, with the exception bachelor's degrees, the distribution of certificates awarded by race and ethnicity was fairly consistent across credential types. For bachelor's degrees, Native American students comprised a substantially smaller share (4 percent) of awardees compared to their share of other credential types (8 to 10 percent).

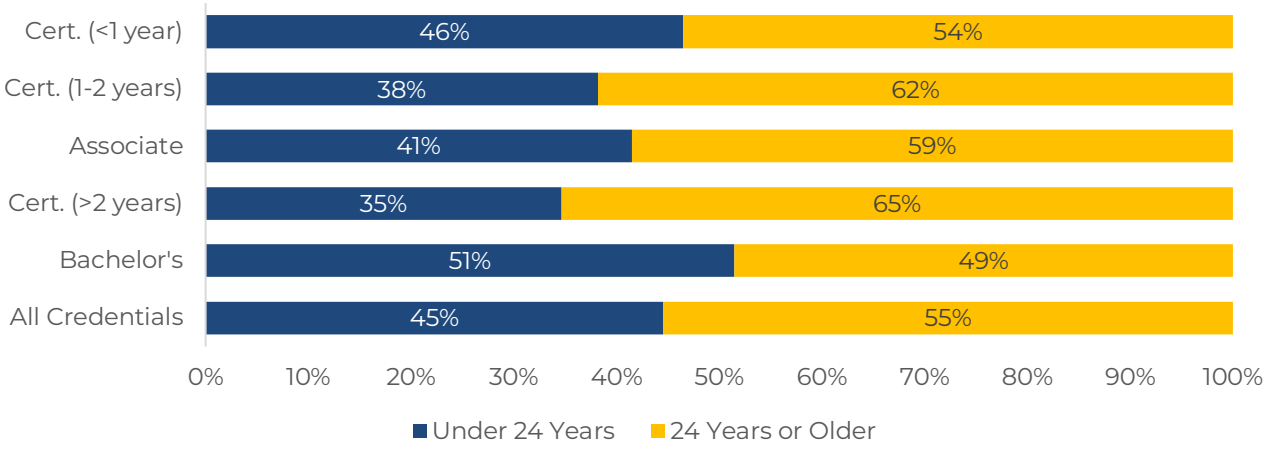
Share of Undergraduate Credentials by Credential Type and Race and Ethnicity
2016-2017 to 2022-2023



By Age Bracket

Older students comprised a larger share of awardees of all credential types except bachelor's degrees between the 2016-2017 and 2022-2023 academic years. The split between older and younger students for bachelor's degree awardees was nearly even, with a 51/49 percent split between younger and older students.

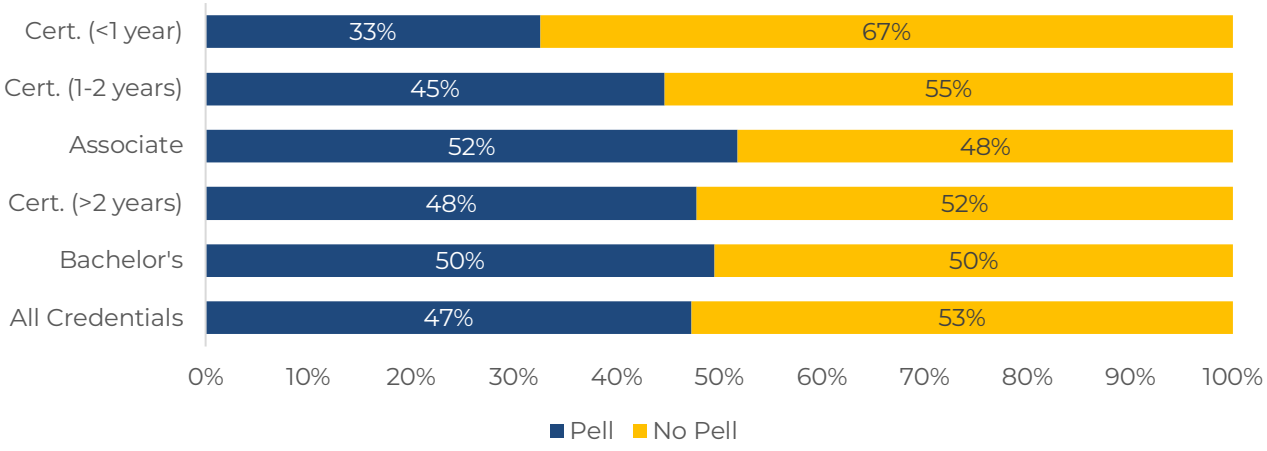
Share of Undergraduate Credentials by Credential Type and Age Bracket
2016-2017 to 2022-2023



By Pell Status

In total, Pell recipients made up a smaller share (47 percent) of awardees than students who were not Pell recipients (53 percent). However, the distribution between Pell and non-Pell awardees varied by credential type. While Pell recipients only comprised a third of awardees for the shortest certificate programs, Pell recipients made up a slight majority of associate degree recipients (52 percent) and received an equal share of bachelor's degrees over the timeframe explored.

Share of Undergraduate Credentials by Credential Type and Pell Status
2016-17 to 2022-23



About the Data and Methods

The dataset used for this analysis was developed based on a data request by LFC's program evaluators and with NMHED and NMDWS staff input.

- Higher education data included in this analysis was pulled from NMHED's Electronic Data Editing and Reporting (eDEAR) database. Data includes all undergraduate credentials earned at New Mexico's public higher education institutions from the 2016-2017 to 2022-2023 academic years. Credential data was joined with student characteristic data.
- Wage data included in this analysis was provided by the NMDWS Unemployment Insurance (UI) dataset and ranged from calendar years 2013 to 2023. NMHED converted these calendar years to fiscal years to better align with academic years.
- The NMDWS UI dataset only provides data on individuals earning wages in New Mexico, and not all employers report data into this system. Notably excluded from this dataset are earnings from outside New Mexico, from federal government employers, from small employers, and wages earned by individuals as contractors.
- The NMDWS UI dataset also includes wage values of *0* when reported by employers as such. NMHED consulted NMDWS to understand their approach to handling these values and considered the implications for keeping or removing these values from the analysis. NMHED decided to leave these values in the dataset as these individuals would be considered employed. The decision to leave these values in the dataset does have the effect of depressing median wage values.
- When analyzing median annual wage returns, NMHED limited displayed values to those in which at least 20 credentials had been awarded for a given credential type and/or program. This was done to limit the level of variability in this measure of central tendency.
- Median annual wage values are measured along a timeline of *Years Since Credential Awarded*. *Years Since Credential Awarded* is calculated by subtracting the Academic Year (AY) from the Fiscal Year (FY) then subtracting one to account for the difference in naming convention. For example, at the x-axis value of 0, students earning a credential in AY2022 (summer 2022 to spring 2023) have their wages from FY2023 (July 2022 to June 2023) reported. Negative values are years prior to the awarding of a given credential.
- Because of the structure of the dataset and the limitations of the range of years available, the number of credentials included at each *Years Since Credential Awarded* value progressively declines as more recent credentials have fewer years of post-credential wage data available.