OFFICE OF HIGHER EDUCATION

Educating for the Future
2023 Update

October 2023

Author

Lesley Sisaket, PhD

Research Analyst
Tel: 651-259-3925
Lesley.Sisaket@state.mn.us

About the Office of Higher Education

The Minnesota Office of Higher Education is a cabinet-level state agency providing students with financial aid programs and information to help them gain access to postsecondary education. The agency also serves as the state's clearinghouse for data, research and analysis on postsecondary enrollment, financial aid, finance and trends.

The Minnesota State Grant Program is the largest financial aid program administered by the Office of Higher Education, awarding more than $224 million annually in need-based grants to Minnesota residents attending eligible colleges, universities and career schools in Minnesota. The agency oversees other state scholarship programs, tuition reciprocity programs, a student loan program, Minnesota's 529 College Savings Plan, licensing and early college awareness programs for youth.

About This Report

This is a legislative-mandated report. As requested by Minnesota Statutes, section 3.197, this report cost approximately $2,881.99 to prepare, including staff time.

Contents

Executive Summary

In 2015, the Minnesota Legislature passed statute 135A.012 Higher Education Goal, which enacted a goal that 70% of Minnesota adults (ages 25-44) will have attained a postsecondary certificate or degree by 2025. In recognition of existing gaps in attainment, the law also sets 30% and 50% educational attainment benchmarks for all races and ethnicities as interim goals. Current estimates show that 63.0% of Minnesotans aged 25-44 years completed a postsecondary credential (Figure 1). This percentage has steadily increased compared to 2015 estimates (57.5%). In order to reach the 70.0% educational attainment goal set by the Legislature, however, Minnesota still needs an additional 104,420 persons age 25-44 to complete a postsecondary credential by 2025.

While progress has been made in each basic race category, there is still work to be done. White Minnesotans have the highest attainment at 68.7%, while American Indian and Hispanic individuals share the lowest attainment percentage at 28.8% and 35.5%, respectively. Black Minnesotans have an attainment rate of 40.5%. Asian Minnesotans (64.3%) and multiracial Minnesotans (53.3%) have attainment rates over the 50 percent benchmark. For Minnesota's racial communities to meet the benchmarks that have been set by the Legislature, an additional 87,731 postsecondary credentials are needed overall. Of the additional credentials needed, 5,311 of the 87,731 credentials must be earned by American Indian identifying adults, 6,049 by Asian identifying adults, 34,836 by Black identifying adults, 8,128 by multiracial identifying adults, 33,407 by Hispanic identifying adults, and 14,388 by White-identifying adults.

At a disaggregated level, large disparities continue to persist for Minnesota's ethnic communities within basic race. The overall attainment rate for Black-identifying adults who have attained an associate or higher degree[1] is 33.7%. When the data is disaggregated, the Liberian community has the highest attainment at 45.7%, the Ethiopian community has an attainment of 35.1%, the Somali community has an attainment of 19.4%, and all other Black-identifying communities having an overall attainment of 35.8%.

When we look at the overall attainment of Asian-identifying adults who have gone on to attain an associate or higher degree, the data shows that the overall attainment rate is 60.4%. As for Minnesota's Asian ethnic communities, the Indian, Chinese, and Korean communities have surpassed Minnesota's Education Attainment Goal at 91.1%, 81.1%, and 72.8%. When we look at Minnesota's Southeast Asian communities, the data shows that the attainment levels vary below the 70% attainment goal. Filipino-identifying and Vietnamese-identifying adults who have attained an associate or higher degree have an attainment rate of 60.8% and 50.6%, respectively. The Cambodian, Lao, Burmese, and Hmong communities continue to progress towards the 50% benchmark implemented by the Legislature for individuals who have attained an associate or higher degree at 36.4%, 33.3%, 19.0%, and 42.3%.

As for Minnesota's Hispanic communities, who have an overall attainment of 31.5% for adults who have attained an associate or higher degree, their ethnic communities also vary at a disaggregated level in terms of their attainment rates. The Salvadorian-identifying community has an attainment rate of 16.0%, the Mexican-identifying community has an attainment rate of 26.7%, the Puerto-Rican-identifying community has an attainment rate of 41.1%, and all other sub-groups under the Hispanic basic race has an attainment rate of

---

[1] Data for detailed race and ethnicity is only available at the level of associate or higher.

41.2%. In order for Minnesota to maintain economic growth and ensure continued prosperity, the state and its colleges must engage communities of color and American Indian communities in postsecondary education.

Minnesota's Attainment Goal

In 2015, the Minnesota Legislature enacted an Education Attainment Goal[2], which states that 70% of Minnesota adults (ages 25-44) will have attained a postsecondary certificate or degree by 2025. The law also sets 30% and 50% educational attainment benchmarks for all races and ethnicities.

Educational attainment refers to the highest level of education an individual completes. Educational attainment of a population is the percentage or count of the persons that holds a postsecondary credential (certificate, associate degree, diploma, bachelor's degree, master's degree, graduate certificate, doctoral or professional degree). The population sampled for measuring educational attainment can vary widely depending on the source. In Minnesota, educational attainment estimates for the state's attainment goal are limited to persons aged 25-44 years. The Legislature chose this age group because age 25-44 is the primary age range at which individuals have completed or are pursuing education or training. The population reported by other sources, for example the U.S. Census Bureau, uses the population aged 25-64 years.

Greater educational attainment correlates with increased earnings, lower unemployment, better health, and other social and economic benefits. The ability of Minnesota workers to live in and raise their families relies on their ability to find employment at a family-sustaining wage that cover the costs of housing, food, transportation, and childcare. Employment and overall economic success require that Minnesotans enter the workforce and advance their careers to achieve a family-sustaining wage. Given that Minnesota's communities of color and Indigenous populations lag the state-wide average on numerous economic outcomes, ensuring the path to greater educational attainment and family-sustaining wages for our communities of color and Indigenous communities represents a moral and practical imperative for the state.

The report uses data obtained from the American Community Survey and analyzed by the Minnesota Demographic Center, with supplemental data provided by the Minnesota Office of Higher Education and Minnesota State Colleges and Universities, to create state-level estimates of postsecondary attainment. Minnesota uses the 1-year American Community Survey (ACS) sample grouped into the most recent 5-year period (2017-2021) to create the attainment estimates and are referenced in the report as "2023 estimates".

Currently, the ACS does not include data on how many adults have sub-baccalaureate certificates as their highest level of education. The Census category "some college, no degree" is a catch-all category that includes individuals who are currently enrolled in college and have not finished, individuals who attended college and did not complete their education, and individuals who earned a postsecondary credential below an associate degree. To reach an estimate of the number of certificates awarded, we used student data provided by Minnesota State Colleges and Universities and the Office of Higher Education between 1990 and 2022 broken down by the age of the certificate holders to separate out certificate holders from those with some college, no degree group within ACS data.

The size of each certificate cohort changes over time based on four factors: mortality, migration, individuals' achievement of higher credentials, and age of individuals. Migration and educational achievement have greater

---

[2] https://www.revisor.mn.gov/statutes/2021/2021-10-26%2009:38:36+00:00/cite/135A.012/pdf

relative impacts on the number of certificate holders than mortality does. Attainment estimates shown have been rounded to the nearest 100 persons or tenth of one percent. Subgroup totals may not add to the all person totals due to rounding. These estimates contain sampling and other sources of error displayed by the margin of error unless noted. Percentages for individuals self-identifying as "other" race are not calculated.

Industry-Recognized Credentials

During the 2023-2024 legislative session, the language within Minnesota Laws 2023 Chapter 44[3] (H.F.No.1126; see Appendix A) changes the state's attainment goal in statute, effective August 1, 2023, to add industry-recognized credentials (also known as workforce credentials) in Minnesota's education attainment goal. There are three types of industry-recognized credentials that apply to the alteration in language around the education attainment goal: certificates, licenses, and certifications, which are defined below.

- Certificate: A certificate may be awarded by either an educational institution or independent education and training provider associated with specific programs of study.
- License: A license is a type of nontraditional credential that is generally awarded by a government-regulated agency. This award may be granted by a federal entity, but usually comes from the state level. Unlike the two other credentials, a license is required before an individual may work in specific professions.
- Certification: A certification is a type of nontraditional award to an individual that demonstrates proficiency and knowledge, through examination, in a specific industry or trade. As opposed to a certificate, obtaining a certification award is not dependent on any actual education or training program. Instead, evaluating candidates for certification relies on independent, third-party professional and industry-based groups. These national organizations develop and maintain relevant proficiency standards that are assessed and sanctioned by industry-approved examination facilities, independent of any educational institution or training program.

At the time of this report, the Minnesota Office of Higher Education had begun the process of compiling a list of industry-recognized credentials. As of October 2023, the list of known industry-recognized credentials (see Appendix B) and known state licenses (see Appendix C) presented here is not definitive, as the information is subject to change as new credentials are created. Additional data collection is needed in order to include industry-recognized credentials in population attainment estimates.
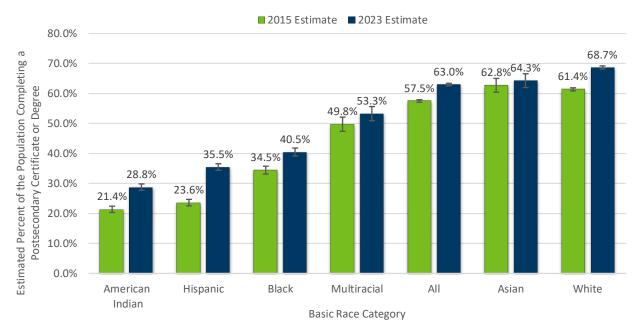
---

[3] https://www.revisor.mn.gov/laws/2023/0/Session+Law/Chapter/44/

2023 Educational Attainment Estimates

As of October 2023, current estimates on Minnesota's educational attainment show that 63.0% of Minnesotans aged 25-44 years have completed a postsecondary credential (Figure 1). This percentage increased as compared to 2015 estimates (57.5%).

With each basic race community continuing to progress towards the 70% threshold, White-identifying Minnesotans have the highest attainment rate amongst all basic races at 68.7%. The Asian and multiracial-identifying communities have surpassed the 50% benchmark with 64.3% and 53.3% attainment rates. As of 2023, the remaining three communities continue to inch towards the educational attainment goal with the American Indian community at 28.8%, the Black or African American community at 40.5%, and Hispanic or Latino community at 35.5% attainment rates. For Minnesota's racial communities to meet the benchmarks that have been set by the Legislature, an additional 87,731 postsecondary credentials are needed overall. Of the additional credentials needed, 5,311 of the 87,731 credentials must be earned by American Indian-identifying adults, 6,049 by Asian-identifying adults, 34,836 by Black-identifying adults, 8,128 by multiracial-identifying adults, 33,407 by Hispanic-identifying adults, and 14,388 by White-identifying adults.

Figure 1: Percentage of the Population Age 25-44 with a Certificate or Higher Credential Minnesota, 2017 and 2023 Estimates by Basic Race Community

Source: IPUMS Microdata version of U.S. Census Bureau American Community Survey, certificate data provided by the Office of Higher Education and Minnesota State Colleges and Universities, with tabulations and analysis completed by the Minnesota Demographic Center. Holders of certificates as their highest postsecondary award were estimated using a cohort analysis method applied to administrative data on certificates awarded.

Table 1: Percentage of the Population Age 25-44 with a Certificate or Higher Credential Minnesota, 2017 and 2023 Estimates by Basic Race Community
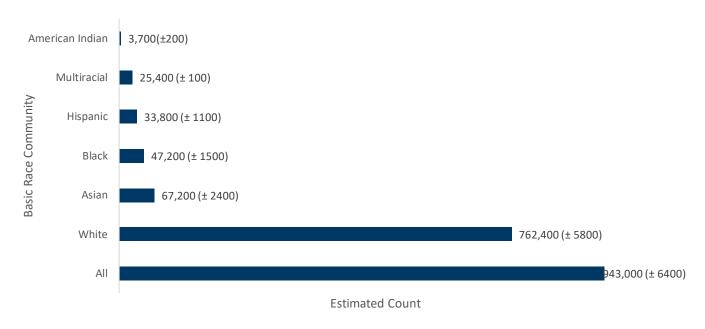
Basic Race Community	Percent of Persons with Certificate or Higher Credential, 2015 Estimates	Margin of Error 2015 Estimates	Percent of Persons with Certificate or Higher Credential 2023 Estimates	Margin of Error 2023 Estimates
AMERICAN INDIAN	21.4%	2.3%	28.8%	1.0%
ASIAN	23.6%	1.4%	64.3%	2.3%
BLACK	34.5%	1.7%	40.5%	1.3%
HISPANIC	49.8%	3.0%	35.5%	1.1%
MULTIRACIAL	57.5%	0.4%	53.3%	2.4%
WHITE	62.8%	1.8%	68.7%	0.5%
ALL	61.4%	0.4%	63.0%	0.4%

Source: IPUMS Microdata version of U.S. Census Bureau American Community Survey (survey years 2017-2021) with certificate data provided by the Office of Higher Education and Minnesota State Colleges and Universities, with tabulations and analysis completed by the Minnesota Demographic Center.

Figure 2: Estimated Count of Persons Age 25-44 with a Certificate or Higher Credential, Minnesota, 2023 Estimates by Basic Race Community

Source: IPUMS microdata version of U.S. Census Bureau 2017-2021 American Community Survey for Associate or Higher Degree, with tabulations by the Minnesota State Demographic Center.

Figure 3: Persons with a Certificate or Higher Credential and Number Needed to Reach 70% Goal, Minnesota, Ages 25-44, Basic Race Groups, 2023 Estimates

■ Current certificate or degree holders
■ Additional certificate or degree holders needed to meet 70% goal

Basic Race Community	
AMERICAN INDIAN	5,311
ASIAN	6,049
BLACK	34,836
MULTIRACIAL	8,128
WHITE	14,388
HISPANIC	33,407
ALL	104,420

Number of Persons

Note: Above graph does not show or account for margins of error. Source: IPUMS microdata version of U.S. Census Bureau 2017-2021 American Community Survey for Associate or Higher Degree, with tabulations by the MN State Demographic Center.

Certificate Versus Degree Attainment

The estimates presented for 2023 in Figure 1 include the combined certificate estimates and the associate degree or higher estimates. Of all Minnesotans age 25-44, 10.6% completed a certificate as their highest credential. American Indian-identifying adults (29.7%) Black-identifying adults (16.7%) and Hispanic-identifying adults (11.0%) have higher than average rate of certificate completion as their highest credential as shown in table 2. Asian-identifying adults (6.1%) and Multiracial-identifying adults (8.1%) have lower than average rates of certificate completion as the highest credential earned.

The difference in certificate completion rates indicates that American Indian, Black, and Hispanic-identifying adults are pursuing short-term credentials at a higher rate as compared to their Asian, White, and multiracial Minnesotan counterparts.
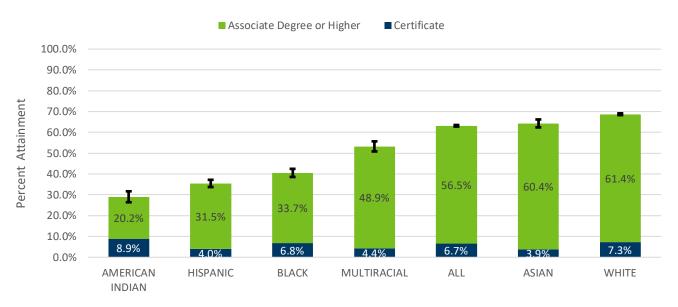
Table 2: Certificates Earned as a Percent of Total Credentials Earned Persons Age 25-44, Minnesota, 2023 Estimates by Basic Race Community

Basic Race Community	Count of Persons with a Certificate	Count of Persons with an Associate Degree or Higher	Total Persons with Certificate or Higher Credential	Certificates Earned as a Percent of Total Credentials
AMERICAN INDIAN	1,100	2,600	3,700	29.7%
ASIAN	4,200	64,200	68,400	6.1%
BLACK	8,000	39,900	48,000	16.7%
MULTIRACIAL	2,100	23,800	26,000	8.1%
WHITE	81,200	684,300	765,200	10.6%
HISPANIC	3,800	30,500	34,400	11.0%
ALL	100,400	847,700	946,200	10.6%

Note: Above table does not show or account for margins of error. Source: IPUMS microdata version of U.S. Census Bureau 2017-2021 American Community Survey for Associate or Higher Degree, with tabulations by the MN State Demographic Center.

Figure 4: Percentage of Population Age 25-44 with a Certificate or Higher Credential, Minnesota, 2023 Estimates by Basic Race Community

Legend: ■ Associate Degree or Higher   ■ Certificate

Y-axis: Percent Attainment (0.0% to 100.0%)
X-axis: Basic Race Community

Basic Race Community	Associate Degree or Higher	Certificate
AMERICAN INDIAN	20.2%	8.9%
HISPANIC	31.5%	4.0%
BLACK	33.7%	6.8%
MULTIRACIAL	48.9%	4.4%
ALL	56.5%	6.7%
ASIAN	60.4%	3.9%
WHITE	61.4%	7.3%

Note: Numbers in Figure 4 may not add to the totals in Figure 1 due to rounding. Source: IPUMS microdata version of U.S. Census Bureau 2017-2021 American Community Survey for Associate or Higher Degree, with tabulations by the Minnesota State Demographic Center.

Associate or Higher Degree Attainment by Detailed Race and Ethnic Communities

The overall attainment rate of Minnesotans with an associate degree or higher is 63.0% (Figure 4). Asian and White Minnesotans have the highest attainment rate pertaining to an associate degree or higher at 64.3% and 68.7%, respectively. The attainment rates for associate degree or higher for the remaining Basic Race Community are: 53.3% for the Multiracial-identifying community, 40.5% for the Black or African American-identifying community, 35.5% for the Hispanic or Latino-identifying community, and 28.8% for the American Indian-identifying community.

To continue the emphasis on the importance of data disaggregation, the Minnesota Office of Higher Education uses data obtained from the American Community Survey to disaggregate education attainment numbers, by detailed race and ethnic populations, for those who have attained an associate degree or higher credential.

Disaggregated data by detailed race/ethnicity groups is not available for certificate estimates. Basic race categories mask the complexity of educational attainment within race/ethnicity groups. For this reason, it is critical to talk about educational attainment within race/ethnicity groups as shown in Figures 5 and Table 3 as opposed to basic race categories.

Education Attainment of Black-Identifying Ethnic Communities

Figure 5 disaggregates the Black basic race category into more detailed race/ethnic groups. As shown, the overall attainment rate for Black Minnesotans for associate degree or higher credential is 34%. However, by looking at the detailed racial/ethnic categories, we can see that Liberian Minnesotans have an attainment rate of 46%, compared to Somali Minnesotans, who have an attainment rate of 19%. The difference between these two groups demonstrates that there are substantial gaps in attainment within basic race categories.
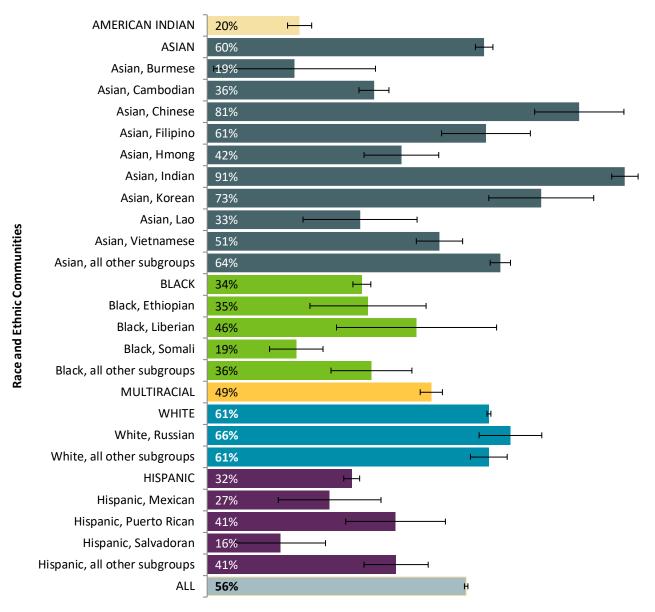
Education Attainment of Hispanic-Identifying Ethnic Communities

Disparities within groups is evident within the Hispanic/Latino category. Figure 5 shows that the overall attainment for Hispanic Minnesotans who have attained an associate degree or higher credential is 32%. Salvadoran Minnesotans have an attainment rate of 16% and Puerto Rican Minnesotans have an attainment rate for associate degree or higher credential of 41%.

Education Attainment of Asian-Identifying Ethnic Communities

The Asian-identifying population shows the starkest within-group differences. Asian Minnesotans have an overall associate degree or higher attainment rate of 60% (Figure 5). When disaggregated, Burmese Minnesotans have an attainment rate of 19% and Indian Minnesotans have an attainment rate of 91%. In addition to Burmese, Laotian (33%), Hmong (42%), and Cambodian Minnesotans (36%) all have attainment rates under the 50 percent benchmark. Vietnamese (51%), Filipino (61%), Korean (73%), Chinese (81%), and all other Asian Minnesotans (64%) have attainment rates above the 50% benchmark.

Figure 5: Educational Attainment for Associate Degree or Higher Credential Disaggregated by Detailed Race and Ethnic Communities, 2023 Estimates

Race and Ethnic Communities	Percent of Population
AMERICAN INDIAN	20%
ASIAN	60%
Asian, Burmese	19%
Asian, Cambodian	36%
Asian, Chinese	81%
Asian, Filipino	61%
Asian, Hmong	42%
Asian, Indian	91%
Asian, Korean	73%
Asian, Lao	33%
Asian, Vietnamese	51%
Asian, all other subgroups	64%
BLACK	34%
Black, Ethiopian	35%
Black, Liberian	46%
Black, Somali	19%
Black, all other subgroups	36%
MULTIRACIAL	49%
WHITE	61%
White, Russian	66%
White, all other subgroups	61%
HISPANIC	32%
Hispanic, Mexican	27%
Hispanic, Puerto Rican	41%
Hispanic, Salvadoran	16%
Hispanic, all other subgroups	41%
ALL	56%

Source: IPUMS Microdata version of U.S. Census Bureau 2017-2021 American Community Survey with tabulations and analysis completed by the Minnesota Demographic Center. Detailed cultural subgroups are included if there were at least 50 respondents (unweighted) from that subgroup in the ACS survey data for Minnesotans age 25 to 44.

Table 3: Educational Attainment for Associate Degree or Higher Credential Disaggregated by Detailed Race/Ethnicity Groups, 2023 Estimates

Detailed Race/Ethnicity Groups	Count of Persons Age 25-44	Count of Persons Age 25-44 with an Associate Degree or Higher	Percent of Persons Age 25-44 with an Associate Degree or Higher	Margin of Error
AMERICAN INDIAN	12,900	2,600	20.2%	2.6%
ASIAN	106,300	64,200	60.4%	1.9%
Asian, Burmese	4,200	800	19.0%	17.6%
Asian, Cambodian	3,300	1,200	36.4%	3.3%
Asian, Chinese	10,600	8,600	81.1%	9.7%
Asian, Filipino	5,100	3,100	60.8%	9.7%
Asian, Hmong	33,300	14,100	42.3%	8.1%
Asian, Indian	21,300	19,400	91.1%	2.9%
Asian, Korean	8,100	5,900	72.8%	11.4%
Asian, Lao	3,000	1,000	33.3%	12.4%
Asian, Vietnamese	7,700	3,900	50.6%	5.0%
Asian, all other subgroups	9,700	6,200	63.9%	2.2%
BLACK	118,300	39,900	33.7%	2.0%
Black, Ethiopian	7,700	2,700	35.1%	12.7%
Black, Liberian	4,600	2,100	45.7%	17.5%
Black, Somali	17,500	3,400	19.4%	5.8%
Black, all other subgroups	88,500	31,700	35.8%	8.8%
MULTIRACIAL	48,700	23,800	48.9%	2.4%
WHITE	1,113,900	684,300	61.4%	0.4%
White, Russian	6,200	4,100	66.1%	6.8%
White, all other subgroups	1,107,700	680,200	61.4%	4.0%
HISPANIC	96,800	30,500	31.5%	1.7%
Hispanic, Mexican	60,300	16,100	26.7%	11.2%
Hispanic, Puerto Rican	5,600	2,300	41.1%	10.9%
Hispanic, Salvadoran	2,500	400	16.0%	9.8%
Hispanic, all other subgroups	28,400	11,700	41.2%	7.0%
ALL	12,900	845,300	20.2%	0.4%

Conclusion

Although Minnesota is making progress towards the 70% educational attainment goal, attainment gaps persist among Black, Indigenous, and persons of color. In order for Minnesota to maintain economic growth and ensure continued prosperity, the state and its colleges should engage communities of color and American Indian communities in postsecondary education. To be successful, the state should focus on increasing the high school graduation rate, postsecondary enrollment, postsecondary persistence, and postsecondary completion, with an emphasis on Black, Indigenous, and students of color. There should also be a concerted effort to encourage and support adults with no college or some college to enroll and complete a postsecondary credential.

Appendices

CHAPTER 44--H. F. No. 1126

An act relating to higher education; providing for certain policy changes to postsecondary attainment goals, student financial aid, institutional licensure provisions, and institutional grant programs; amending Minnesota Statutes 2022, sections 135A.012; 136A.121, subdivisions 2, 18; 136A.1241, subdivision 5; 136A.1701, subdivision 11; 136A.62, subdivision 3, by adding a subdivision; 136A.653, by adding a subdivision; 136A.833; 136A.91, subdivision 1; 137.022, subdivision 4; repealing Minnesota Rules, parts 4830.0400, subpart 1; 4880.2500.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1.
Minnesota Statutes 2022, section 135A.012, is amended to read:

135A.012 HIGHER EDUCATION ATTAINMENT GOAL.

Subdivision 1.

Purpose.

This section sets a goal for postsecondary education and workforce training credential attainment for Minnesota residents.

Subd. 2.

Postsecondary credentials.

The number of Minnesota residents ages 25 to 44 years who hold postsecondary ~~degrees or certificates~~ or industry-recognized credentials should be increased to at least 70 percent by 2025.

Subd. 3.

Rights not created.

The attainment goal in this section is not to the exclusion of any other goals and does not confer a right or create a claim for any person.

Subd. 4.

Data development and analyses.

The Office of Higher Education shall work with the state demographer's office to measure progress towards the attainment of the goal specified in subdivision 2. The United States Census Bureau data shall be used to calculate the number of individuals in the state who hold a postsecondary degree. The Office of Higher Education, demographer's office, ~~and~~ the Department of Employment and Economic Development, and the Department of Labor and Industry shall develop a methodology to estimate the number of individuals that hold a ~~certificate~~ credential awarded by a postsecondary institution or recognized by an industry authority as their highest ~~educational~~ credential using data available at the time that the analysis is completed.

Subd. 5.

Reporting.

(a) Beginning in 2016 and every year thereafter, the Office of Higher Education, in collaboration with the state demographer's office, shall, by October 15, report to the chairs and ranking minority members of the

legislative committees with primary jurisdiction over higher education policy and finance on the progress towards meeting or exceeding the goal of this section.

(b) Meeting and maintaining the goal of 70 percent of Minnesota residents ages 25 to 44 years holding a postsecondary ~~degree or certificate~~ <u>or industry-recognized credential</u> will likely be difficult without achieving attainment rates that are comparable across all race and ethnicity groups. The Office of Higher Education shall utilize benchmarks of 30 percent or higher and 50 percent or higher to report progress by race and ethnicity groups toward meeting the educational attainment rate goal of 70 percent.

Appendix B: Known Industry-Recognized Credentials Based on Credential Engine[4]

Credential Name	Issuer of Credential
Adobe Certified Expert – Digital Video, Adobe Certified Professional	Adobe
Adobe Certified Expert – Graphic Design & Illustration, Adobe Certified Professional	Adobe
Adobe Certified Expert - InDesign, Adobe Certified Professional	Adobe
Adobe Certified Expert – Multiplatform Animation, Adobe Certified Professional	Adobe
Adobe Certified Expert – Print & Digital Media Publication, Adobe Certified Professional	Adobe
Adobe Certified Expert – Visual Design, Adobe Certified Professional	Adobe
Adobe Certified Expert – Visual Effects & Motion Graphics, Adobe Certified Professional	Adobe
Adobe Certified Expert – Web Authoring, Adobe Certified Professional	Adobe
AWS Certified Developer, AWS Cloud Data Engineer	Amazon
Certified Black Belt, Certified Green Belt	American Association for Lean Six Sigma Certification (AALSSC)
Culinary Meat Selection & Cookery Certification, Food Safety & Science Certification	American Meat Science Association
Certified Clinical Medical Assistant, Phlebotomy Technician	American Medical Certification Association
Certified Welder, Certified Radiographic Interpreter (CRI)	American Welding Society
Autodesk Certified Professional in AutoCAD for Design and Drafting; Autodesk Certified User (ACU) – Revit Architecture	Autodesk
ASE Entry-Level Automobile Electronic/Electrical Systems (EE), ASE Refrigerant Recovery and Recycling	Automotive Service Excellence (ASE)
ITIL, PRINCE2	Axelos
CISCO Certified Network Associate (CCNA), Cisco Certified CyberOps Associate	CISCO
CompTIA A+ Certification	CompTIA
CompTIA CASP+ Certification	CompTIA
CompTIA Cloud+ Certification	CompTIA
CompTIA Cloud Essentials+ Certification	CompTIA
CompTIA CTT+ Certification	CompTIA
CompTIA CySA+ Certification	CompTIA

---

[4] Source: Credential Engine, https://credentialengine.org/

Credential Name	Issuer of Credential
CompTIA Data+ Certification	CompTIA
CompTIA DataSys+ Certification	CompTIA
CompTIA ITF+ Certification	CompTIA
CompTIA Linux+ Certification	CompTIA
CompTIA Network+ Certification	CompTIA
CompTIA PenTest+ Certification	CompTIA
CompTIA Project+ Certification	CompTIA
CompTIA Security+ Certification	CompTIA
CompTIA Server+ Certification	CompTIA
Certified SOLIDWORKS Associate (CSWA) - Electrical, Certified SOLIDWORKS Professional (CSWP) - Mechanical Design	Dassault Systems
Google IT Support Professional Certificate, Google Professional Cloud Architect	Google
Pre-Apprenticeship Certificate Training (PACT)	Home Builders Institute
Certified Information Systems Auditor, Certified Information Security Manager	ISACA
Linux Essentials, Linux Web Development Essentials	Linux Professional Institute
Microsoft 365 Certified: Administrator Expert	Microsoft
Microsoft 365 Certified: Collaboration Communications Systems Engineer Associate	Microsoft
Microsoft 365 Certified: Endpoint Administrator Associate	Microsoft
Microsoft 365 Certified: Fundamentals	Microsoft
Microsoft 365 Certified: Messaging Administrator Associate	Microsoft
Microsoft 365 Certified: Teams Administrator Associate	Microsoft
Microsoft 365 Certified: Teams Application Developer Associate	Microsoft
Microsoft Certified Educator	Microsoft
Microsoft Certified: Azure AI Engineer Associate	Microsoft
Microsoft Certified: Azure AI Fundamentals	Microsoft
Microsoft Certified: Azure Administrator Associate	Microsoft
Microsoft Certified: Azure Cosmos DB Developer Specialty	Microsoft
Microsoft Certified: Azure Data Engineer Associate	Microsoft
Microsoft Certified: Data Fundamentals	Microsoft
Microsoft Certified: Azure Data Scientist Associate	Microsoft
Microsoft Certified: Azure Database Administrator Associate	Microsoft
Microsoft Certified: Azure Developer Associate	Microsoft
Microsoft Certified: Azure Enterprise Data Analyst Associate	Microsoft
Microsoft Certified: Azure Fundamentals	Microsoft

Credential Name	Issuer of Credential
Microsoft Certified: Azure Network Engineer Associate	Microsoft
Microsoft Certified: Azure Security Engineer Associate	Microsoft
Microsoft Certified: Azure Solutions Architect Expert	Microsoft
Microsoft Certified: Azure Virtual Desktop Specialty	Microsoft
Microsoft Certified: Azure for SAP Workloads Specialty	Microsoft
Microsoft Certified: Customer Data Platform Specialty	Microsoft
Microsoft Certified: Cybersecurity Architect Expert	Microsoft
Microsoft Certified: DevOps Engineer Expert	Microsoft
Microsoft Certified: Dynamics 365 Business Central Functional Consultant Associate	Microsoft
Microsoft Certified: Dynamics 365 Customer Insights (Journeys) Functional Consultant Associate	Microsoft
Microsoft Certified: Dynamics 365 Customer Service Functional Consultant Associate	Microsoft
Microsoft Technology Associate (MTA) - Database Administration Fundamentals, Microsoft Azure AI Fundamentals	Microsoft
Microsoft Certified: Dynamics 365 Field Service Functional Consultant Associate	Microsoft
Microsoft Certified: Dynamics 365 Finance Functional Consultant Associate	Microsoft
Microsoft Certified: Dynamics 365 Fundamentals (CRM)	Microsoft
Microsoft Certified: Dynamics 365 Fundamentals (ERP)	Microsoft
Microsoft Certified: Dynamics 365 Sales Functional Consultant Associate	Microsoft
Microsoft Certified: Dynamics 365 Supply Chain Management Functional Consultant Associate	Microsoft
Microsoft Certified: Dynamics 365 Supply Chain Management Functional Consultant Expert	Microsoft
Microsoft Certified: Dynamics 365: Finance and Operations Apps Developer Associate	Microsoft
Microsoft Certified: Dynamics 365: Finance and Operations Apps Solution Architect Expert	Microsoft
Microsoft Certified: Identity and Access Administrator Associate	Microsoft
Microsoft Certified: Information Protection and Compliance Administrator Associate	Microsoft
Microsoft Certified: Power Automate RPA Developer Associate	Microsoft
Microsoft Certified: Power BI Data Analyst Associate	Microsoft
Microsoft Certified: Power Platform App Maker Associate	Microsoft
Microsoft Certified: Power Platform Developer Associate	Microsoft

Credential Name	Issuer of Credential
Microsoft Certified: Power Platform Functional Consultant Associate	Microsoft
Microsoft Certified: Power Platform Fundamentals	Microsoft
Microsoft Certified: Power Platform Solution Architect Expert	Microsoft
Microsoft Certified: Security Operations Analyst Associate	Microsoft
Microsoft Certified: Security, Compliance, and Identity Fundamentals	Microsoft
Microsoft Certified: Windows Server Hybrid Administrator Associate	Microsoft
Microsoft Office Specialist 2013 Master	Microsoft
Microsoft Office Specialist: 2016 Master	Microsoft
Microsoft Office Specialist: Access (Office 2016)	Microsoft
Microsoft Office Specialist: Access 2013	Microsoft
Microsoft Office Specialist: Associate (Microsoft 365 Apps)	Microsoft
Microsoft Office Specialist: Associate (Office 2019)	Microsoft
Microsoft Office Specialist: Excel (Office 2016)	Microsoft
Microsoft Office Specialist: Excel 2013	Microsoft
Microsoft Office Specialist: Excel 2013 Expert	Microsoft
Microsoft Office Specialist: Excel Associate (Microsoft 365 Apps)	Microsoft
Microsoft Office Specialist: Excel Associate (Office 2019)	Microsoft
Microsoft Office Specialist: Excel Expert (Microsoft 365 Apps)	Microsoft
Microsoft Office Specialist: Excel Expert (Office 2016)	Microsoft
Microsoft Office Specialist: Expert (Microsoft 365 Apps)	Microsoft
Microsoft Office Specialist: Expert (Office 2019)	Microsoft
Microsoft Office Specialist: Microsoft Access Expert (Office 2019)	Microsoft
Microsoft Office Specialist: Microsoft Excel Expert (Office 2019)	Microsoft
Microsoft Office Specialist: Microsoft Word Expert (Office 2019)	Microsoft
Microsoft Office Specialist: OneNote 2013	Microsoft
Microsoft Office Specialist: Outlook (Office 2016)	Microsoft
Microsoft Office Specialist: Outlook 2013	Microsoft
Microsoft Office Specialist: Outlook Associate (Office 2019)	Microsoft
Microsoft Office Specialist: PowerPoint (Office 2016)	Microsoft
Microsoft Office Specialist: PowerPoint 2013	Microsoft
Microsoft Office Specialist: PowerPoint Associate (Microsoft 365 Apps)	Microsoft
Microsoft Office Specialist: PowerPoint Associate (Office 2019)	Microsoft
Microsoft Office Specialist: Word (Office 2016)	Microsoft
Microsoft Office Specialist: Word 2013	Microsoft
Microsoft Office Specialist: Word 2013 Expert	Microsoft
Microsoft Office Specialist: Word Associate (Microsoft 365 Apps)	Microsoft

Credential Name	Issuer of Credential
Microsoft Office Specialist: Word Associate (Office 2019)	Microsoft
Microsoft Office Specialist: Word Expert (Microsoft 365 Apps)	Microsoft
Microsoft Office Specialist: Word Expert (Office 2016)	Microsoft
Advanced Medical Assistant (NRCAMA), Pharmacy Technician (NRCPhT)	National Association for Health Professionals
Insurance and Coding Specialist, Applied Robotics	National Center for Construction Education & Research (NCCER)
Certified EKG Technician, Patient Care Technician	National Health Career Association
Machining CNC Mill Operations Level I, Industrial Technology Maintenance (ITM) - Electrical Systems	National Institute for Metalworking Skills (NIMS)
Emergency Medical Technician (EMT), Emergency Medical Responder	National Registry of Emergency Medical Technician (NREMT)
Early Childhood Education and Care - Advanced, Small Engine Technology	NOCTI
Oracle Certified Associate Java SE 8 Programmer, Oracle Database SQL Certified Associate	Oracle
Project Manager Professional (PMP), PMI Agile Certified Practitioner	Project Management Institute
Python Certified Associate in Python Programming (PCAP), Certified Entry-Level Python Programmer (PCEP)	Python
Troubleshooting 1C-103 Certified Industry 4.0 Associate - Robot System Operations, C-200 Certified Industry 4.0 Automation Systems Specialist I - 208 Programmable Controller	Smart Automation Certification Alliance (SACA)

Appendix C: Known State Licenses Based on Minnesota E-Licensing[5]

Credential Name	Issuer of Credential
Certified Public Accountant (CPA)	Minnesota State Board of Accountancy (BOA)
Certified Public Accountant (CPA) Firm -Corporation / Partnership / LLP / LLC	Minnesota State Board of Accountancy (BOA)
Certified Public Accountant (CPA) Sole Proprietor Firm	Minnesota State Board of Accountancy (BOA)
Registered Accounting Practitioner (RAP) Registration	Minnesota State Board of Accountancy (BOA)
Bulk Milk Hauler & Sampler License	Minnesota Department of Agriculture (MDA)
Architect	Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID)
Certified Interior Designer (CID)	Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID)
Engineer-In-Training	Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID)
Geologist-In-Training	Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID)
Land Surveyor	Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID)
Land Surveyor In-Training	Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID)
Landscape Architect	Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID)
Professional Engineer	Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID)
Professional Geologist	Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID)

[5] Source: Minnesota E-Licensing, https://mn.gov/elicense

Credential Name	Issuer of Credential
Professional Soil Scientist	Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID)
Soil Scientist In-Training	Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID)
Licensed Alcohol and Drug Counselor (LADC)	Minnesota Board of Behavioral Health and Therapy (BBHT)
Licensed Professional Clinical Counselor (LPCC)	Minnesota Board of Behavioral Health and Therapy (BBHT)
Licensed Professional Counselor (LPC)	Minnesota Board of Behavioral Health and Therapy (BBHT)
Doctor of Chiropractic (DC)	Minnesota Board of Chiropractic Examiners (MBCE)
Closing Agent	Minnesota Department of Commerce
Crop Hail Adjuster	Minnesota Department of Commerce
Mortgage Loan Originator License	Minnesota Department of Commerce
Pharmacy Benefit Manager (PMB)	Minnesota Department of Commerce
Cosmetology -Individual Licenses	Minnesota Board of Cosmetology
Auctioneer License	Designated County or City
Massage Therapy	Designated County or City
Dental Assistant	Minnesota Board of Dentistry
Dental Hygienist / Resident Provider	Minnesota Board of Dentistry
Dental Licenses -Emeritus Status	Minnesota Board of Dentistry
Dental Therapist / Advanced Dental Therapist / Resident Provider	Minnesota Board of Dentistry
Dentist	Minnesota Board of Dentistry
Dietitian License	Minnesota Board of Dietetics and Nutrition Practice
Nutritionist License	Minnesota Board of Dietetics and Nutrition Practice
Emergency Medical Responder (EMR)	Minnesota Emergency Medical Services Regulatory Board (EMSRB)
Emergency Medical Technician (EMT) Registration	Minnesota Emergency Medical Services Regulatory Board (EMSRB)
Medical Response Unit (MRU)/Specialized Medical Response Unit (SMRU) Registration	Minnesota Emergency Medical Services Regulatory Board (EMSRB)

Credential Name	Issuer of Credential
Rehabilitation Counselor for the Blind	Minnesota Department of Employment and Economic Development (DEED)
Assisted Living Director License (ALD) / Assisted Living Licensure In Residency (ALDIR)	Minnesota Board of Executives for Long Term Services and Supports (BELTSS)
Health Services Executive (HSE)	Minnesota Board of Executives for Long Term Services and Supports (BELTSS)
Nursing Home Administrator	Minnesota Board of Executives for Long Term Services and Supports (BELTSS)
Licensed Firefighter	Minnesota Board of Firefighter Training & Education (MBFTE)
Qualified Instructor - Minnesota Board of Firefighter Training and Education (MBFTE)	Minnesota Board of Firefighter Training & Education (MBFTE)
Audiologist	Minnesota Department of Health (MDH)
Body Art Technician	Minnesota Department of Health (MDH)
Lead Independent Examination	Minnesota Department of Health (MDH)
Lead Licensing Individual (Lead Worker / Lead Supervisor / Lead Inspector / Lead Risk Assessor / Lead Project Designer)	Minnesota Department of Health (MDH)
Lead Sampling Technician Registration	Minnesota Department of Health (MDH)
Limited Scope X-ray Operator Registration and Bone Densitometry Equipment Operator	Minnesota Department of Health (MDH)
Minnesota Certified Food Protection Manager (CFPM)	Minnesota Department of Health (MDH)
Mortuary Science (Mortician) License	Minnesota Department of Health (MDH)
Radon Measurement Professional License	Minnesota Department of Health (MDH)
Radon Mitigation Professional License	Minnesota Department of Health (MDH)
Speech-Language Pathologist License	Minnesota Department of Health (MDH)
Water Operator Certification and Training	Minnesota Department of Health (MDH)
Water Supply System Operator Certificate	Minnesota Department of Health (MDH)
Wells and Borings: Elevator Boring Contractor	Minnesota Department of Health (MDH)
Wells and Borings: Environmental Well Contractor	Minnesota Department of Health (MDH)
Wells and Borings: Limited Bored Geothermal Heat Exchanger Contractor	Minnesota Department of Health (MDH)
Wells and Borings: Limited Dewatering Well Contractor	Minnesota Department of Health (MDH)

Credential Name	Issuer of Credential
Wells and Borings: Limited Pump, Pitless and Screen Contractor	Minnesota Department of Health (MDH)
Wells and Borings: Limited Well Sealing Contractor	Minnesota Department of Health (MDH)
Wells and Borings: Well Contractor	Minnesota Department of Health (MDH)
Wells and Borings: Well Contractor (Current)	Minnesota Department of Health (MDH)
Lawyer Registration	Minnesota Judicial Branch
Boat Master License	Department of Labor and Industry (DLI)
Building Official Limited (LB) / Accessibility Specialist (AS) / Certified Building Official (BO)	Department of Labor and Industry (DLI)
Certified Pipe Layer	Department of Labor and Industry (DLI)
Class A Journey Worker Electrician	Department of Labor and Industry (DLI)
Combative Sports -Various Licenses (Judge / Promoter / Referee / Ringside Physician / Timekeeper / Trainer/ Second / Corner)	Department of Labor and Industry (DLI)
Combative Sports Combatant License - Amateur / Professional | Boxing and Mixed Martial Arts	Department of Labor and Industry (DLI)
Construction Contractor Registration	Department of Labor and Industry (DLI)
Electrical Contractors	Department of Labor and Industry (DLI)
Electrical Installer Class A & B	Department of Labor and Industry (DLI)
Elevator / Limited Elevator Contractor	Department of Labor and Industry (DLI)
High Pressure Pipefitter (HPP) Contractor	Department of Labor and Industry (DLI)
Journeyman Plumber License	Department of Labor and Industry (DLI)
Journey Worker Elevator Constructor	Department of Labor and Industry (DLI)
Journey Worker High Pressure Pipefitter (HPP)	Department of Labor and Industry (DLI)
Lineman	Department of Labor and Industry (DLI)
Maintenance Electrician	Department of Labor and Industry (DLI)
Master / Limited Master Elevator Constructor	Department of Labor and Industry (DLI)
Master Electrician Class A	Department of Labor and Industry (DLI)
Master High Pressure Pipefitter (HPP)	Department of Labor and Industry (DLI)
Master Plumber License	Department of Labor and Industry (DLI)
Plumbing Contractor	Department of Labor and Industry (DLI)
Power Limited Technician	Department of Labor and Industry (DLI)

Credential Name	Issuer of Credential
Residential Building Contractor/Remodeler	Department of Labor and Industry (DLI)
Residential Roofer	Department of Labor and Industry (DLI)
Satellite Systems Contractor (SSC)	Department of Labor and Industry (DLI)
Technology Systems Contractor	Department of Labor and Industry (DLI)
Water Conditioning Contractor	Department of Labor and Industry (DLI)
Water Conditioning Installer -Journeyman	Department of Labor and Industry (DLI)
Water Conditioning Installer -Master	Department of Labor and Industry (DLI)
Associate Marriage and Family Therapist (LAMFT)	Minnesota Board of Marriage and Family Therapy (MFT)
Continuing Education (CE) - Program Sponsor	Minnesota Board of Marriage and Family Therapy (MFT)
Marriage and Family Therapist (LMFT)	Minnesota Board of Marriage and Family Therapy (MFT)
Acupuncture Practitioner	Minnesota Board of Medical Practice
Athletic Trainer	Minnesota Board of Medical Practice
Genetic Counselor	Minnesota Board of Medical Practice
Medical Faculty License	Minnesota Board of Medical Practice
Physician (Doctor of Medicine (M.D.) and Doctor of Osteopathic Medicine (D.O.))	Minnesota Board of Medical Practice
Physician Assistant License	Minnesota Board of Medical Practice
Respiratory Therapist (RT) License	Minnesota Board of Medical Practice
Traditional Midwife License	Minnesota Board of Medical Practice
Certified Tree Inspector	Minnesota Department of Natural Resources (DNR)
Taxidermist License	Minnesota Department of Natural Resources (DNR)
Advanced Practice Registered Nurse (APRN) License	Minnesota Board of Nursing
Licensed Practical Nurse (LPN)	Minnesota Board of Nursing
Professional Nursing Firms Registration	Minnesota Board of Nursing
Registered Nurse (RN)	Minnesota Board of Nursing
Occupational Therapy (OT) Practitioner / Occupational Therapy Assistant (OTA) Licenses	Minnesota Board of Occupational Therapy Practice
Continuing Education (CE) Program Approval	Minnesota Board of Optometry
Optometrist	Minnesota Board of Optometry

Credential Name	Issuer of Credential
Continuing Education (CE) Course Approval	Minnesota Board of Peace Officer Standards and Training (POST)
Peace Officer License	Minnesota Board of Peace Officer Standards and Training (POST)
Controlled Substance Researcher	Minnesota Board of Pharmacy
Pharmacist License	Minnesota Board of Pharmacy
Physical Therapist Assistant (PTA) License	Minnesota State Board of Physical Therapy
Physical Therapist License	Minnesota State Board of Physical Therapy
Orthotist / Prosthetist / Prosthetist Orthotist / Pedorthist / Orthotist Assistant / Prosthetist Assistant / Fitters	Minnesota Board of Podiatric Medicine
Podiatrist	Minnesota Board of Podiatric Medicine
Type II Landfill Operator or Inspector Certificate	Minnesota Pollution Control Agency (MPCA)
Type III Landfill Operator or Inspector Certificate	Minnesota Pollution Control Agency (MPCA)
Type IV Waste Disposal Operator or Inspector Certificate	Minnesota Pollution Control Agency (MPCA)
Type V Waste Disposal Operator or Inspector Certificate	Minnesota Pollution Control Agency (MPCA)
Wastewater -Operator Certification	Minnesota Pollution Control Agency (MPCA)
Teaching Licenses - Various Types / Special Permissions	Professional Educator Licensing and Standards Board (PELSB)
Licensed Psychologist (LP)	Minnesota Board of Psychology
Broker's Employee License	Minnesota Department of Public Safety (DPS)
Commercial Driver Training School License	Minnesota Department of Public Safety (DPS)
Commercial Driver's License (CDL)	Minnesota Department of Public Safety (DPS)
Commercial Driver's License (CDL) Hazardous Materials Endorsement	Minnesota Department of Public Safety (DPS)
Commercial Driver's License (CDL) School Bus Endorsement	Minnesota Department of Public Safety (DPS)
Drive-Away / In-Transit License	Minnesota Department of Public Safety (DPS)
Fire Protection Managing Employee Certificate	Minnesota Department of Public Safety (DPS)
Fire Protection Sprinkler System Contractor License	Minnesota Department of Public Safety (DPS)
Fire Protection Sprinkler System Designer Contractor License	Minnesota Department of Public Safety (DPS)

Credential Name	Issuer of Credential
Fire Protection Sprinkler System Limited Contractor License	Minnesota Department of Public Safety (DPS)
Multipurpose Potable Water Piping System Contractor License	Minnesota Department of Public Safety (DPS)
Continuing Education (CE) Provider	Minnesota Board of School Administrators (BOSA)
Social Worker License (Various Classes)	Minnesota Board of Social Work (BOSW)
MnDOT Landscape Specialist Certification	Minnesota Department of Transportation (MnDOT)