

December 4, 2019

The Honorable Paul Anderson, Chair
Higher Education Finance and Policy Committee
2103 Minnesota Senate Building
95 University Avenue W.
St. Paul, Minnesota 55155

Dear Senator Anderson:

Enclosed is the latest report detailing the state's progress in meeting Minnesota's educational attainment goal as required by *Minnesota Statute* 135A.012. By law, updates occur on October 15 of each fiscal year. Information on enrollments and tuition and fee changes were provided by public and private institutions.

2019 Estimates

Current estimates show that 62.2% of Minnesotans aged 25-44 years completed a postsecondary credential. This percentage increased slightly as compared to 2015 (57.5%), the first year after the goal was established.

Approximately 8.4% of Minnesotans hold a postsecondary certificate and 53.9% hold an associate degree or higher credential.

Estimates by Race

White Minnesotans still have the highest attainment at 67.8%, while American Indian and Latinx communities share the lowest attainment percentage at 28.0% and 28.1%, respectively. Black Minnesotans have an attainment rate of 37.0%. Asians (64.2%) and multiracial Minnesotans (55.7%) have attainment rates over the 50 percent benchmarks.

Credentials Needed to Meet the Goal

In order to reach the 70% educational attainment goal set by the Legislature, Minnesota will need an additional 110,733 new postsecondary credentials by 2025. Of those credentials, 78% must be earned by students of color or American Indian students.

The report can be viewed online at http://www.ohe.state.mn.us/sPages/educ_attain_goal_2025.cfm. Feel free to contact me or the report authors if you have questions or would like more information.

Sincerely,



Dennis W. Olson
Commissioner

Enclosure

cc: Sen. Rich Draheim, Vice Chair
Joan White
Legislative Reference Library

Sen. Greg Clausen
Aara Johnson
Tricia Elite



Educating for the Future
2019 Update
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About the Minnesota 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 \$207 million in need-based grants to Minnesota residents attending accredited institutions in Minnesota. The agency oversees tuition reciprocity programs, a student loan program, Minnesota's 529 College Savings Plan, licensing and early college awareness programs for youth.

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Executive Summary

In 2015, the Minnesota Legislature enacted a state postsecondary educational attainment goal that 70% of Minnesota adults (age 25 to 44) will have attained a postsecondary certificate or degree by 2025 (Minn. Laws 2015 Chapter 69 Article 3 Sec. 6). Most importantly, 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. The U.S. Census measures educational attainment of a population as a percentage or count of the population that holds a postsecondary credential (certificate, associate degree, diploma, bachelor's degree, master's degree, graduate certificate, and doctoral or professional degree).

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 in the state relies on their ability to find employment at a family-sustaining wage to cover the costs of housing, food, transportation, and childcare. Analysis of data from the Minnesota Department of Employment and Economic Development (DEED) shows that over 68% of jobs paying family-sustaining wages require postsecondary education beyond high school. Given that Minnesota's communities of color and indigenous populations lag whites on numerous economic outcomes, ensuring the path to family-sustaining wages for our communities of color and indigenous communities represents a moral imperative for the state.

Current estimates show that 62.2% of Minnesotans aged 25-44 years completed a postsecondary credential (Figure 1). This percentage increased slightly as compared to 2015 estimates (57.5%).

- White Minnesotans still have the highest attainment at 67.8%, while American Indian and Latinx¹ communities share the lowest attainment percentage at 28.0% and 28.1%, respectively. Black Minnesotans have an attainment rate of 37.0%. Asians (64.2%) and multiracial Minnesotans (55.7%) have attainment rates over the 50 percent benchmarks.
- Approximately 13.4% of persons age 25-44 completing a certificate or degree have a certificate as their highest credential. For American Indians, however, 34.1% of college completers have a certificate as their highest degree credential. Black (20.4%) and Latinx (16.4%) race groups also have a higher than average proportion of individuals with a certificate as their highest credential. Asians (7.0%) have a lower proportion of certificates as the highest credential earned. This shows the stratification by race in program of study chosen.

In order to reach the 70% educational attainment goal set by the Legislature, Minnesota will need an additional 110,730 persons age 25-44 to complete a postsecondary credential by 2025.

¹ *Hispanic* and *Latino* may be used interchangeably though they actually mean two different things. Hispanic refers to people who speak Spanish and/or are descended from Spanish-speaking populations, while Latino refers to people who are from or descended from people from Latin America. For purposes of educational attainment, the data are specific to persons descended from Latin American and therefore we use the term Latinx that is gender neutral.

- Of those, 6,120 credentials must be earned by American Indians, 5,490 by Asians, 32,830 by Blacks, 4,240 by multiracial individuals, 37,300 by Latinx, and 24,050 by whites². In total, persons of color or indigenous persons must earn 78% of the 110,730 additional postsecondary credentials. Unless the state achieves increased postsecondary attainment for persons of color and American Indians, it is not likely that the state will meet the 70% attainment goal.

Attainment rates for the basic race categories hide large disparities across ethnicities.

- The overall Black attainment rate for an associate degree or higher credential is 29.4%. However, Black Liberians have an attainment rate of 45.8% compared to Black Somalis, who have an attainment rate of 18.8%.
- Latinx Salvadorans in Minnesota have an attainment rate of 10.3%, while Latinx Puerto Ricans have an attainment rate for associate degree or higher credential of 36.2%. The Latinx overall attainment is 23.5%.
- Although Asian Minnesotans have an overall associate degree or higher attainment rate of 59.7%, Burmese have an attainment rate of 3.1% and Indian Minnesotans have an attainment rate of 90.9%. In fact, Laotians (33.3%), Hmong (37.1%), and Cambodians (43.3%) all have attainment rates under the 50 percent benchmark. On the other hand, Vietnamese (54.3%), Filipino (62.5%), Koreans (70.0%), Chinese (75.0%), and all other Asian ethnicities (69.3%) have attainment rates above the 50% benchmark.

In order to reach the 70% educational attainment goal and improve educational attainment for people of color and indigenous populations, opportunities for increasing attainment exist in five areas. Each area represents a key point where ensuring individual success in education will have significant positive impacts for large numbers of students, greatly benefiting the state.

1. Decreasing the number of high school dropouts

In the 2018 academic year, over 3,000 students dropped out of high school in Minnesota or 4.6% of 2014 cohort of 9th graders in the state (class of 2018; Minnesota Department of Education, 2019). However, when one examines the percent of students dropping out by race and ethnicity, large differences appear. American Indian (18.7%), Latinx (10.2%), and Black (7.4%) students drop out at higher rates than white (3.1%) and Asian (2.9%) students. These disparities in high school dropout rates indicate that not all students persist in education equally.

2. Increasing the number of high school graduates who enroll in postsecondary institutions

In Minnesota, 85% of high school graduates enroll in a postsecondary institution by age 25 (classes of 2007-2010; Minnesota Statewide Longitudinal Education Data System, 2019a). The enrollment of students of color and American Indian students by age 25 is much lower — 69-72% of American Indians, 65-73% of Latinx, 82-83% of Black students, and 76% of students eligible for free or reduced price lunch as compared to 83-85% of Asians, 86-87% of Whites, and 87-88% of students not eligible for free or reduced price lunch (classes of 2007-2010; Minnesota Statewide Longitudinal Education

² Also includes 700 credentials by persons of unknown race/ethnicity.

Data System, 2019a). Within these enrollment rates, gaps in enrollment in the fall after high school graduation by race, ethnicity, and income are the largest. Fall enrollment is important because students who delay enrollment in college are less likely to complete a college certificate or degree (Lin & Liu, 2019). Thus, gaps in immediate postsecondary enrollment directly affect college completion. These data underscore the need for equitable opportunities in education so that all students have the same chance at a college credential, regardless of their race or ethnicity.

3. Increasing the number of college students who complete their certificate or degree
Among a single cohort of high school graduates, roughly 30% of those who enroll in college will drop out before completing their degree. However, among students of color and American Indian students that enroll in college, more than 40% will drop out before completing their degree. Increasing persistence is critical to increasing college completion and educational attainment. Minnesota postsecondary institutions should address underlying cultural, social, academic, and psychological barriers faced by students of color and American Indian students.
4. Increasing enrollment of adults who never enrolled in college
An estimated 367,000 Minnesotans age 25-44 never enrolled in postsecondary education. This group includes targeted subpopulations (e.g. returning veterans, former incarcerated adults, and new immigrants and refugees). Of the 367,000 Minnesotans in this group, 36% or 130,000 individuals are persons of color or indigenous people. Convincing these adults that enrolling in college will have a positive economic impact for them and facilitating their enrollment and success will quickly advance the progress of Minnesota's communities of color and indigenous communities in attaining the 70% rate desired.
5. Re-engaging adult learners who left college without completing their program
An estimated 12% of Minnesotans age 25-44 (177,000 persons) enrolled in college but never completed a certificate or degree. Of those individuals, 49,000 are persons of color or indigenous persons. Given the state needs 110,000 new credentials to reach its attainment goal, efforts to engage adult learners within this group may have a distinct impact on reaching the state's attainment goal. This group previously enrolled in college and may have earned prior credits; therefore, these students may be able to complete their college program in a shorter period.

In summary, Minnesota is making steady progress towards the 70% educational attainment goal, but attainment gaps persist among people of color and American Indians. As the state is increasingly becoming more diverse, the need for more Minnesotans to become career-ready is also increasing. Unfortunately, many American Indian, Black, Asian, and Latinx Minnesotans are not earning credentials. 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.

Minnesota's Attainment Goal

In 2015, the Minnesota Legislature enacted a state postsecondary educational attainment goal that 70% of Minnesota adults (age 25 to 44) will have attained a postsecondary certificate or degree by 2025 (*Minn. Laws 2015 Chapter 69 Article 3 Sec. 6*). Most importantly, the law also sets 30% and 50% educational attainment benchmarks for all races and ethnicities. 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.

What is Educational Attainment?

Educational attainment refers to the highest level of education an individual completes. Educational attainment of a population is reported as a percentage or count of the population that holds a postsecondary credential (certificate, associate degree, diploma, bachelor's degree, master's degree, graduate certificate, and doctoral or professional degree). The population sampled for measuring educational attainment can vary widely depending on the source. In Minnesota, educational attainment estimates for measuring progress towards 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.

Why does Educational Attainment Matter?

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 in the state relies on their ability to find employment at a family-sustaining wage to cover the costs of housing, food, transportation, and childcare. Analysis of data from the Minnesota Department of Employment and Economic Development (DEED) found that over 68% of jobs paying family-sustaining wages require postsecondary education beyond high school (Table 1). DEED cost-of-living data define a family-sustaining wage for a family of three in Minnesota as \$55,548 for two adults and one child, with one adult working full time and the other part time. Another 3% of jobs require vocational training, including on-the-job training, apprenticeships, and/or short-term certificates from postsecondary institutions or other industry-recognized training programs.

These data underscore the need for measures of employment success beyond simply finding a job. Employment success and overall economic success require that Minnesotans enter the workforce and find continued ways to advance their careers to ensure they achieve a family-sustaining wage. Given that Minnesota's communities of color and indigenous populations fall behind whites on numerous economic outcomes, ensuring the path to family-sustaining wages for our communities of color and indigenous communities represents a moral imperative for the state.

Table 1: Total Hires 2016-2026 Paying a Family Sustaining Wage by Education Level Required

Education Level Required	Count of Total Hires 2016-2026	Percent of Total Hires
High School	242,023	28.54%
Vocational Training*	28,779	3.39%
Associate Degree	82,439	9.72%
Bachelor's Degree	445,295	52.51%
Graduate or Professional Degree	49,412	5.83%
Subtotal	847,948	100.00%
No Formal Education Level Assigned	69,990	
Total	917,938	

*Vocational training includes on-the-job training, apprenticeships, and short-term certificates from postsecondary institutions or other industry-recognized training programs.

Source: Analysis done by the Minnesota Office of Higher Education using data from the Minnesota Department of Employment and Economic Development (DEED): employment outlook projections (<https://mn.gov/deed/eo>), educational requirements for occupations (<https://mn.gov/deed/data/data-tools/educational-requirements-occupations/>), Occupational Employment Statistics (<https://mn.gov/deed/oes>) and cost of living (<https://mn.gov/deed/col>).

Methodology for Estimating Attainment

Minnesota uses the 1-year American Community Survey (ACS) sample for the most recent 5-year period (2013-2017) to create the attainment estimates and are referenced in the report as “2019 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 2018, broken down by the age of the certificate holders to separate out certificate holders from the some college, no degree cohort within ACS. The size of each certificate cohort changes over time based on four factors:

- The mortality of the certificate holders,
- The migration of certificate holders into and out of the state,
- The advancement of certificate holders to higher levels of educational attainment, and
- The progression of the cohort into and out of the 25 to 44 age group — the age group specified in Minnesota’s educational attainment goal.

Migration and educational advancement beyond a certificate have greater relative impacts on the number of certificate holders than mortality. “Certificates” for the purpose of the educational attainment goal refers to a postsecondary award, certificate, or diploma at a level less than a baccalaureate degree, which is not an associate degree. This includes “awards”, “certificates”, or “diplomas” depending on the naming convention used by a specific institution. It does not include awards conferred by an entity other than a postsecondary institution, such as an industry certificate awarded by a company.

Current Educational Attainment Estimates

Current estimates show that 62.2% of Minnesotans aged 25-44 years completed a postsecondary credential (Figure 1). This percentage increased slightly as compared to 2015 estimates (57.5%). White Minnesotans still have the highest attainment at 67.8%, while American Indian and Latinx³ communities share the lowest attainment percentage at 28.0% and 28.1%, respectively (Figure 1). Both American Indians and Latinx Minnesotans have educational attainment rates lower than the 30 percent benchmark established by the Minnesota Legislature. Black Minnesotans have an attainment rate of 37%. Asian (64.2%) and multiracial (55.7%) Minnesotans have attainment rates over the 50 percent benchmarks. Figure 2 shows the estimated counts of persons age 25-44 with a certificate or higher credential in Minnesota.

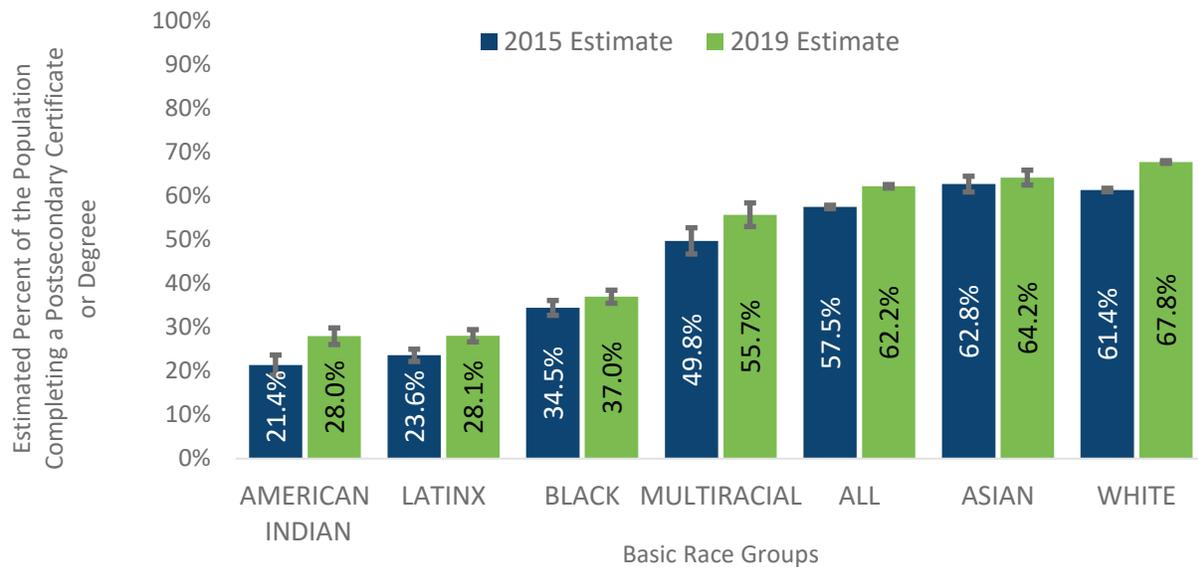
Associate Degree or Higher Attainment

The overall attainment rate of persons with an associate degree or higher is 53.9% (Figure 3). Asian Minnesotans have the highest rate of associate degree or higher attainment at 59.7%. Whites are close behind at 58.7%. The attainment rates for associate degree or higher for the remaining basic race groups are: multiracial (48.3%), Black (29.4%), Latinx (23.5%), and American Indian (18.5%).

The estimates for 2019 in figure 1 include the combined certificate estimates and the associate degree or higher estimates. Table 2 shows the corresponding number of persons by attainment level (certificate, and associate degree or higher). Approximately 13.4% of persons age 25-44 completing a certificate or degree have a certificate as their highest credential. For American Indians, however, 34.1% have a certificate as their highest degree credential. This number is higher as compared to all other groups. Black (20.4%) and Latinx (16.4%) race groups also have a higher than average proportion of individuals with a certificate as their highest credential. Asians (7.0%) have a lower proportion of certificates as the highest credential earned.

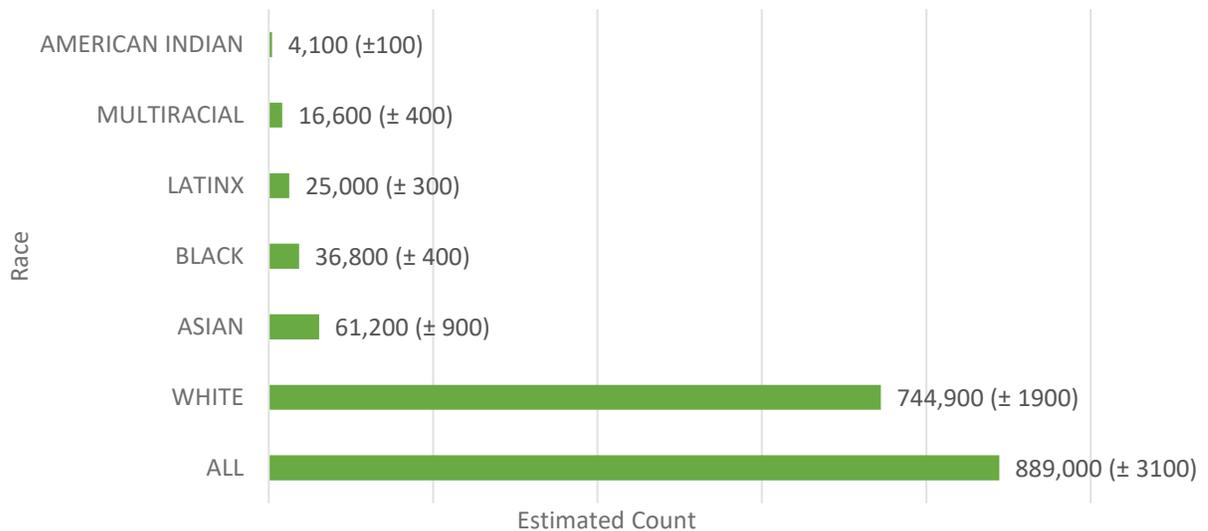
³ *Hispanic* and *Latino* are often used interchangeably though they actually mean two different things. *Hispanic* refers to people who speak Spanish and/or are descended from Spanish-speaking populations, while *Latino* refers to people who are from or descended from people from Latin America. For purposes of educational attainment, the data are specific to persons descended from Latin American and therefore we use the term *Latinx* that is gender neutral.

Figure 1: Percentage of the Population Age 25-44 with a Certificate or Higher Credential, Minnesota, 2015 and 2019 Estimates by Basic Race Groups



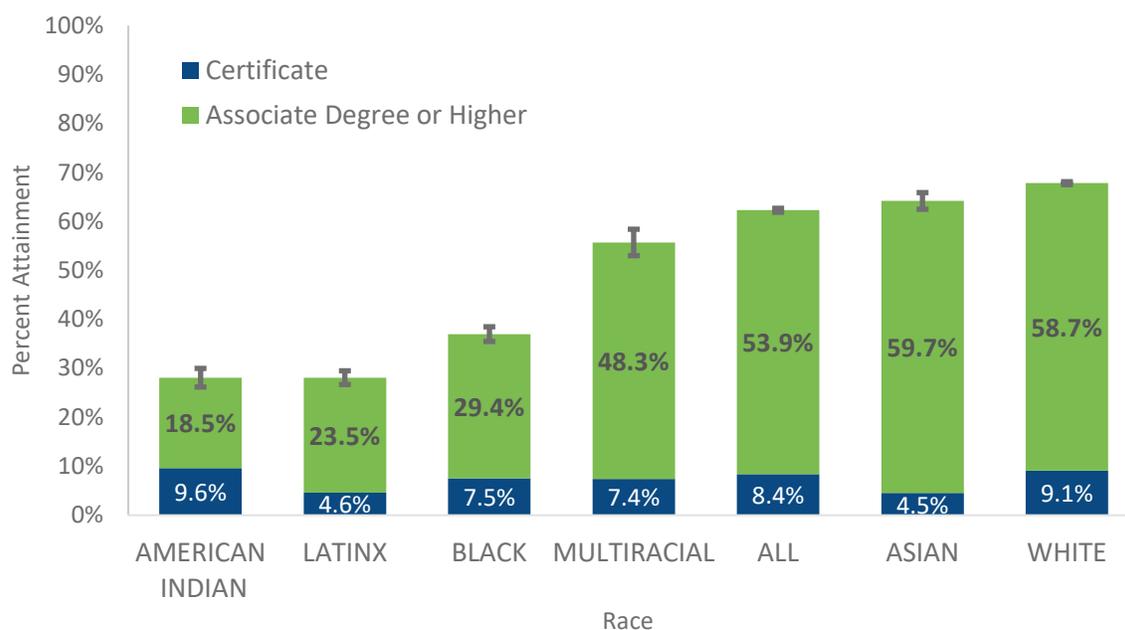
Source: IPUMS Microdata version of U.S. Census Bureau American Community Survey (2008-2012, 2013-2017), with certificate data provided by the Office of Higher Education and Minnesota State Colleges and Universities, and with tabulations and analysis completed by the Minnesota Demographic Center

Figure 2: Estimated Count of Persons Age 25-44 with a Certificate or Higher Credential, Minnesota, 2019 Estimates by Basic Race Groups



Source: IPUMS Microdata version of U.S. Census Bureau 2013-2017 American Community Survey, with certificate data provided by the Office of Higher Education and Minnesota State Colleges and Universities, and with tabulations and analysis completed by the Minnesota Demographic Center

**Figure 3: Percentage of Population Age 25-44 with a Certificate or Higher Credential, Minnesota, 2019
Estimates by Basic Race Groups**



Source: IPUMS Microdata version of U.S. Census Bureau 2013-2017 American Community Survey with tabulations and analysis completed by the Minnesota Demographic Center

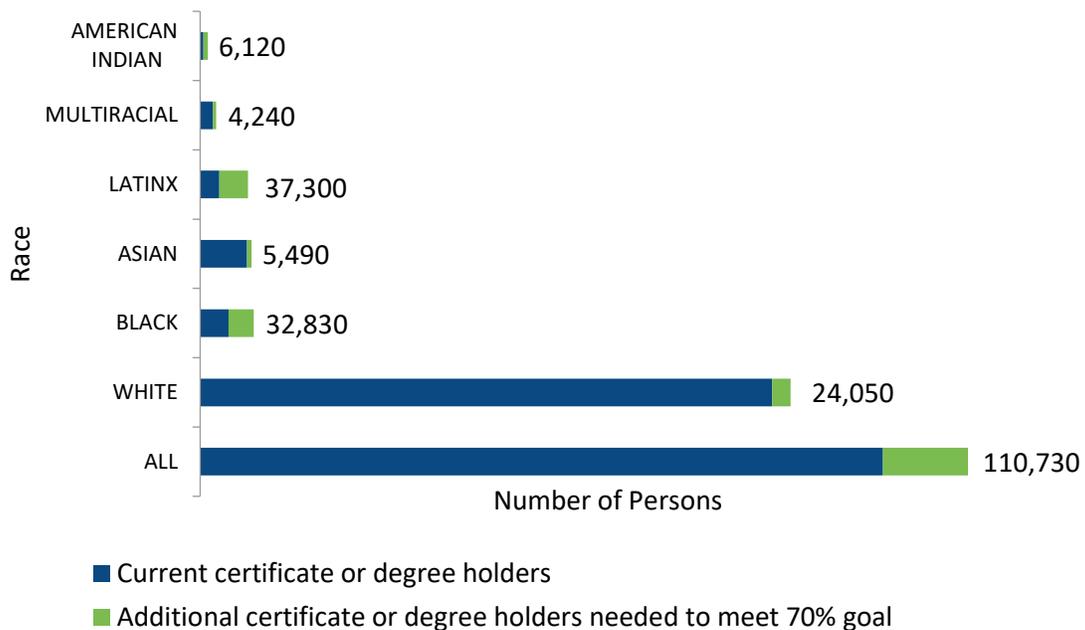
Table 2: Certificates Earned as a Percent of Total Credentials Earned, Persons Age 25-44, Minnesota, 2019 Estimates by Basic Race Group

Basic Race Group	Certificate Holders	Associate or Higher Degree Holders	Total Persons with Credential	Certificates Earned as a Percent of Total Credentials
AMERICAN INDIAN	1,400	2,700	4,100	34.1%
LATINX	4,100	20,900	25,000	16.4%
BLACK	7,500	29,300	36,800	20.4%
MULTIRACIAL	2,200	14,400	16,600	13.3%
ALL	119,300	770,200	889,500	13.4%
ASIAN	4,300	56,800	61,100	7.0%
WHITE	99,800	645,100	744,900	13.4%

Source: IPUMS Microdata version of U.S. Census Bureau 2013-2017 American Community Survey, with certificate data provided by the Office of Higher Education and Minnesota State Colleges and Universities, and with tabulations and analysis completed by the Minnesota Demographic Center.

In order to reach the 70% educational attainment goal set by the Legislature, Minnesota will need an additional 110,733 persons age 25-44 to complete a postsecondary credential by 2025 (Figure 4). Of those, 6,120 credentials must be earned by American Indians, 5,490 by Asians, 32,830 by Blacks, 4,240 by multiracial individuals, 37,300 by Latinx, and 24,050 by whites.⁴ In total, persons of color or indigenous persons must earn 78% of the 110,733 additional postsecondary credentials. Unless the state achieves increased postsecondary attainment for persons of color and American Indians, it is not likely that the state will meet the 70% attainment goal.

Figure 4: Persons with a Certificate or Higher Credential, Age 25-44, and Number Yet Needed to Reach 70% Goal by Basic Race Groups, 2019 Estimates



Source: IPUMS Microdata version of U.S. Census Bureau 2013-2017 American Community Survey, with certificate data provided by the Office of Higher Education and Minnesota State Colleges and Universities, and with tabulations and analysis completed by the Minnesota Demographic Center.

⁴ Also includes 700 credentials by persons of unknown race/ethnicity.

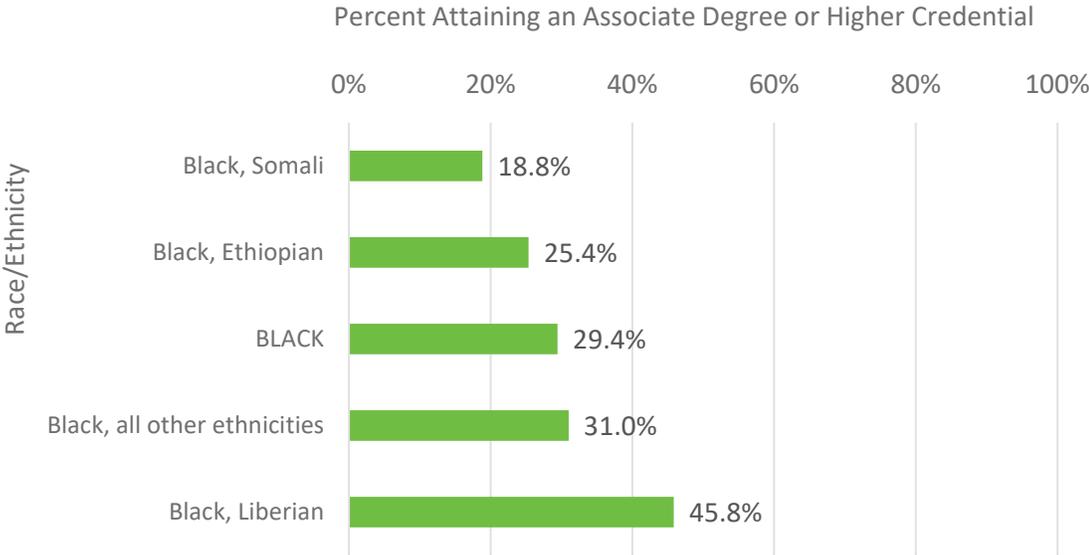
Associate or Higher Degree Attainment by Detailed Race/Ethnicity Groups

The previous graphs shown in this report used basic racial categories to report educational attainment. However, the Minnesota Demographic Center, using American Community Survey data, is able to disaggregate attainment numbers by detailed ethnic groups for individuals attaining an associate degree or higher credential.

Black

Figure 5 disaggregates the Black basic race category into more detailed race/ethnic groups. As shown, the overall Black attainment rate for associate degree or higher credential is 29.4%. However, by looking at the detailed racial/ethnic categories, we can see that Black Liberians have an attainment rate of 45.8%, compared to Black Somalis, who have an attainment rate of 18.8%. The difference between these two groups demonstrates that there is substantial difference in attainment within basic race categories, not obvious at first glance of the overall race attainment numbers shown earlier.

Figure 5: Black Educational Attainment for Associate Degree or Higher, Disaggregated by Detailed Race/Ethnic Groups, 2019 Estimates

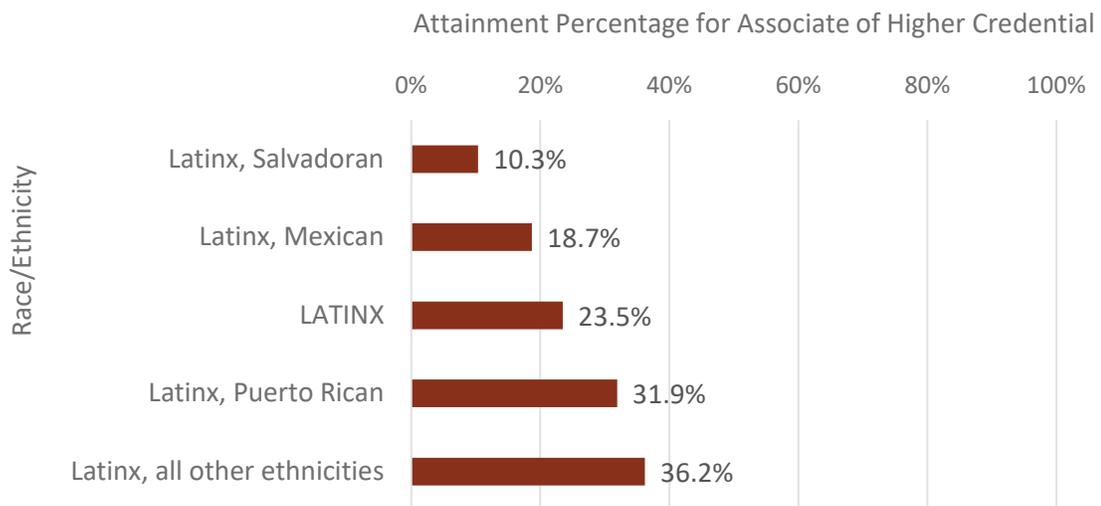


Source: IPUMS Microdata version of U.S. Census Bureau 2013-2017 American Community Survey with tabulations and analysis completed by the Minnesota Demographic Center.

Latinx

Another example of the diversity within groups is the Latinx basic race category. Figure 6 shows that Latinx Salvadorans in Minnesota have an attainment rate of 10.3%, while Latinx Puerto Ricans have an attainment rate for associate degree or higher credential of 36.2%. The Latinx overall attainment is 23.5%.

Figure 6: Latinx Educational Attainment for Associate Degree or Higher, Disaggregated by Detailed Race/Ethnic Groups, 2019 Estimates



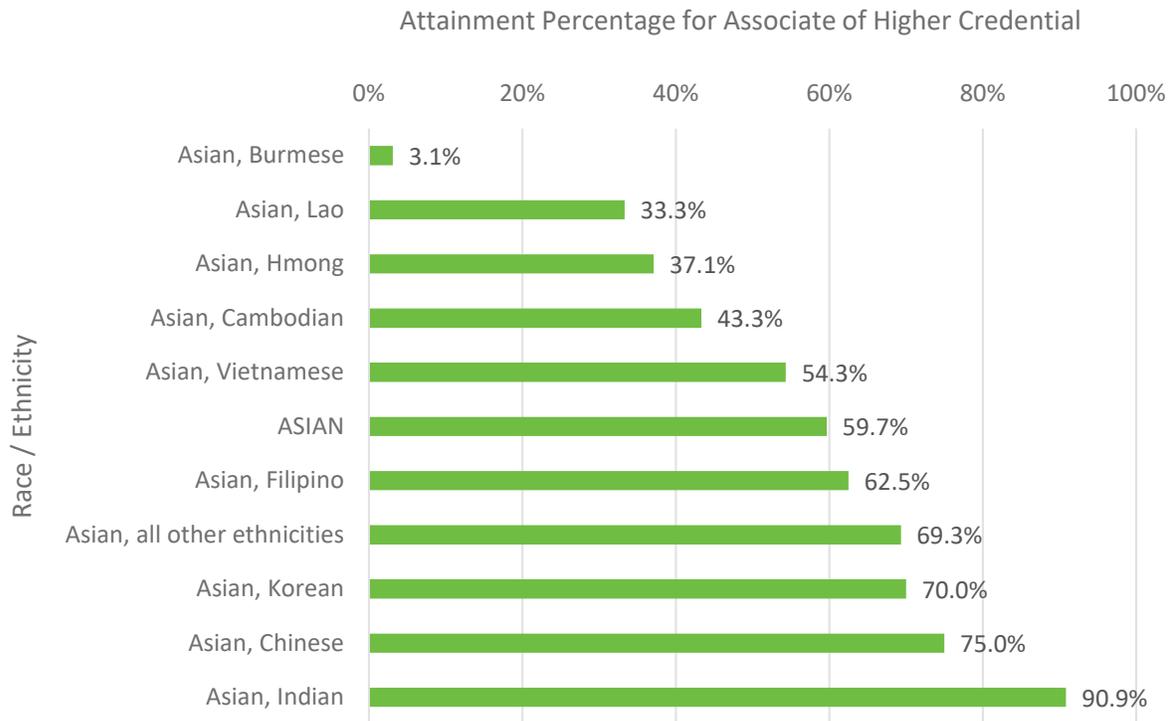
Source: IPUMS Microdata version of U.S. Census Bureau 2013-2017 American Community Survey with tabulations and analysis completed by the Minnesota Demographic Center.

Asian

The Asian basic race category perhaps shows the starkest within-group differences (Figure 7). Although Asian Minnesotans have an overall associate degree or higher attainment rate of 59.7%, when disaggregated, we can see that some ethnicities within the category, such as Burmese, have an attainment rate of 3.1%, while Indian Minnesotans have an attainment rate of 90.9%. In fact, Laotians (33.3%), Hmong (37.1%), and Cambodians (43.3%) all have attainment rates under the 50 percent benchmark. On the other hand, Vietnamese (54.3%), Filipino (62.5%), Koreans (70.0%), Chinese (75.0%), and all other ethnicities included in the Asian basic race category (69.3%) have attainment rates above the 50% benchmark. The Asian basic race category, much like the other basic race categories, masks the complexity of educational attainment within groups. This is why, whenever possible, it is more helpful to talk about educational attainment in the context of disaggregated groups as opposed to basic race categories. For example, by looking at the basic Asian race category one may assume that because Asian attainment is approximately on par with white educational attainment, there is no need to continue to focus on improving educational attainment for this group. However, by looking at the disaggregated

Asian category, it is clear that, in fact, many Asian ethnic subgroups may still need interventions to increase their attainment rates.

Figure 7: Asian Educational Attainment for Associate Degree or Higher, Disaggregated by Detailed Race/Ethnic Groups, 2019 Estimates



Source: IPUMS Microdata version of U.S. Census Bureau 2013-2017 American Community Survey with tabulations and analysis completed by the Minnesota Demographic Center.

Opportunities for Increasing Attainment

While the educational attainment rates for Minnesotans overall are increasing, some racial and ethnic groups continue to lag behind the state average. In order to reach the 70% educational attainment goal and improve educational attainment for people of color and indigenous populations, opportunities for increasing attainment exist in five areas:

1. Decreasing the number of high school dropouts,
2. Increasing the number of high school graduates who enroll in postsecondary institutions,
3. Increasing the number of college students who stay in college and complete their certificate or degree,
4. Increasing enrollment of adults who never enrolled in college, and
5. Re-engaging adult learners who left college without completing their program.

Each area represents a key point where ensuring individual success in education will have significant positive impacts for large numbers of students, greatly benefiting the state.

Decreasing the Number of High School Dropouts

In the 2018 academic year, over 3,000 students dropped out of high school in Minnesota, or 4.6% of the 2014 cohort of 9th graders in the state (class of 2018; Minnesota Department of Education, 2019). However, when one examines the percent of students dropping out by race and ethnicity, large differences appear. American Indian (18.7%), Latinx (10.2%), and Black (7.4%) students drop out at higher rates than white (3.1%) and Asian (2.9%) students. The dropout rate for students who are eligible for free or reduced price lunch is 8.7%, for English language learners it is 9.2%, and for special education students it is 8.3% (Minnesota Department of Education, 2019).

Minnesota's dropout rate exacerbates educational and economic inequities because students who do not complete high school are more likely to be unemployed, more reliant on public assistance programs, and when employed earn wages that on average are less than those who finished high school (Freeman & Simonsen, 2015). The higher dropout rates for students of color, American Indian students, and other special populations indicate that not all students persist in education equally. Ultimately, these dropout numbers influence the state's educational attainment rate, as dropouts exacerbate the educational attainment gaps between whites and people of color and American Indians. An estimated 6.7% of Minnesotans age 25-44 (96,000 persons) have not completed high school or the equivalent. Of those individuals, 61.6% (59,000) are persons of color or indigenous persons.

Options for reducing the state's dropout rate and its impact on the state's educational attainment rate include research-based strategies such as academic support, behavior intervention, career development and job training, family engagement, health and wellness, and mentoring (Chappell, O'Connor, Withington, & Stegelin, 2015, Ecker-Lyter & Niileksela, 2016). Continual and deliberate commitment to

time and resources in these strategies will decrease dropouts and increase high school graduation rates, which translate into more students who are ready to seek out postsecondary pathways (Ecker-Lyster & Niileksela, 2016).

Increasing College Enrollment among High School Graduates

In Minnesota, 85% of high school graduates enroll in a postsecondary institution by age 25 (classes of 2007-2010; Minnesota Statewide Longitudinal Education Data System, 2019a). The enrollment of students of color and American Indian students by age 25 is much lower — 69-72% of American Indians, 65-73% of Latinx, 82-83% of Black students, and 76% of students eligible for free or reduced price lunch as compared to 83-85% of Asians, 86-87% of Whites, and 87-88% of students not eligible for free or reduced price lunch (classes of 2007-2010; Minnesota Statewide Longitudinal Education Data System, 2019a).

Within these enrollment rates, gaps in enrollment in the fall after high school graduation by race, ethnicity, and income are the largest. The majority of graduates (68-71%) enrolled in postsecondary institutions immediately after high school (classes of 2007-2017; Minnesota Statewide Longitudinal Education Data System, 2019a). The enrollment of students of color and American Indian students immediately after high school graduation is much lower — 39-52% of American Indians, 42-54% of Latinx and 53-62% of Black students, and 50-56% of students eligible for free or reduced price lunch as compared to 64-71% of Asians, 71-73% of Whites, and 73-76% of students not eligible for free or reduced price lunch (classes of 2007-2010; Minnesota Statewide Longitudinal Education Data System, 2019a). Fall enrollment is important because students who delay enrollment in college are less likely to complete a college certificate or degree (Lin & Liu, 2019). Thus, gaps in immediate postsecondary enrollment directly affect college completion.

An estimated 19% (271,000 persons) of Minnesotans age 25-44 completed high school but did not enroll in college. Of those individuals, 73,000 are persons of color or indigenous persons. These data underscore the need for equitable opportunities in education so that all students have the same chance at a college credential, regardless of their race or ethnicity. Increasing the number of students, especially for students of color and indigenous populations, who enroll in a postsecondary institution and complete a credential will contribute to the attainment goal and create a more prosperous Minnesota for all. Strategies for increasing enrollment among recent high school graduates include: mitigating aspiration-attainment gaps, increasing access to dual credit and other rigorous courses in high school for all students, not just high academic achieving students, increasing core content knowledge, increasing college knowledge, ensuring financial preparation and awareness of financial aid, and coaching and mentoring (Carrell & Sacerdote, 2017; Page & Scott-Clayton, 2019).

Increasing Persistence and Completion Rates of College Students

Postsecondary persistence measures the percent of enrolling students in year one who remain enrolled or complete their program in years two through four. Of the 2014 cohort of high school graduates who enrolled in a postsecondary institution, 85% persisted to their second year (or graduated), 76% persisted to their third year and 69% persisted to their fourth year (or graduated). However, for 2014 high school graduates of color and American Indian graduates, persistence rates were significantly lower, with only 63-73% of enrollees persisting to their second year (or graduating), 47-60% persisting to their third and 40-52% persisting to their fourth year (or graduated) (classes of 2014; Minnesota Statewide Longitudinal Education Data System, 2019b).

Examining completion data over a ten-year period after high school graduation for students of color and American Indian students show comparable gaps — 27-31% of American Indians, 32-35% of Latinx and 33-38% of Black students, and 37-40% of high school graduates eligible for free or reduced price lunch as compared to 53-56% of Asians, 60-62% of Whites, and 62-63% of students not eligible for free or reduced price lunch (classes of 2007-2010; Minnesota Statewide Longitudinal Education Data System, 2019b). Among a single cohort of high school graduates, roughly 30% of those who enroll in college will drop out before completing their degree. However, among students of color and indigenous students that enroll in college, more than 40% will drop out before completing their degree.

Research indicates that the difference in persistence rates for students of color and American Indian students partially results from a lack of sense of belonging, low socialization, and negative campus climates. These may be common experiences among students of color and American Indian students who attend predominantly white institutions (institutions in which white students account for 50 percent or more of the student body) (Booker, 2016). These negative experiences leave students of color and American Indian students feeling excluded, having low self-esteem, and ultimately experiencing low motivation and desire to persist and complete their degrees (Booker, 2016; Museus & Harris, 2010; Tovar, 2016).

Increasing persistence is critical to increasing college completion and educational attainment and will result from Minnesota postsecondary institutions addressing the underlying cultural, social, academic, and psychological barriers faced by students of color and American Indian students. It is important to recognize that successful college persistence and completion strategies can, and often do, take multiple forms. Individual institutions must decide which practices would be the most beneficial for their targeted student population. Strategies can include: social and campus integration programs (first-year programs, service-learning, and summer-bridge programs); programs promoting long-term success (proactive advising and degree mapping); alternative delivery models for developmental education (courses, mainstreaming into credit-bearing courses with added support, and co-curricular programming); and emergency assistance programs addressing unforeseen student financial needs related to food and housing insecurity.

Increasing College Enrollment among Adults

An estimated 367,000 Minnesotans age 25-44 never enrolled in postsecondary education. Given that the state needs 110,000 new credentials to reach its attainment goal, this group represents the largest opportunity for the state. This group also likely includes individuals mentioned above, including students who have dropped out of high school or never enrolled in college who are currently between ages 18-24. This group may also include other targeted subpopulations (e.g. returning veterans, former incarcerated adults, and new immigrants and refugees). For working adults, the economic advantage of enrolling in college is clear — adults with only a high school credential earned \$730 per week on average as compared to associate degree graduates (\$862) and bachelor's degree graduates (\$1,198), and have higher unemployment rates (4.1% as compared to 2.8% and 2.2%, respectively; U.S. Department of Labor, 2019).

Of the 367,000 Minnesotans in this group, 36% or 130,000 individuals are persons of color or indigenous people. Convincing these adults that enrolling in college will have a positive economic impact for them and facilitating their enrollment and success will quickly advance the progress of Minnesota's communities of color and indigenous communities in attaining at the 70% rate desired.

For many adults, advancing their careers is the primary reason for potentially pursuing postsecondary education (Silliman & Scheleifer, 2018). However, adults wanting to enroll in college may not be able to quit their jobs to enroll in college. Thus, they face unique challenges, including navigating the college system, finding flexible work schedules, balancing work and family obligations, paying for school, and finding childcare. Finishing college may take longer because they are more likely to enroll part-time and/or may transfer between colleges or programs as their life and educational needs change (Graham, 2015; Silliman & Scheleifer, 2018). Strategies for increasing enrollment among adults include: academic scheduling that is predictable and/or accelerated, access to needed services on campus on evenings and weekends, robust prior learning assessment policies and practices for obtaining credit for military or work experience, advisors who are knowledgeable about adult learners, understanding and preparing for academic assessments (e.g. Accuplacer tests), and eligibility for financial aid (Kazis, Callahan, Davidson, McLeod, Bosworth, Choitz & Hoops, 2007).

Re-engaging Adults Learners who Left without Completing

An estimated 12% of Minnesotans age 25-44 (177,000 persons) enrolled in college but never completed a certificate or degree. Of those individuals, 49,000 are persons of color or indigenous persons. Given the state needs 110,000 new credentials to reach its attainment goal, efforts to engage adult learners within this group may have a distinct impact on reaching the state's attainment goal. This group previously enrolled in college and may have earned prior credits; therefore, these students may be able to complete their college program in a shorter period.

Adult learners returning to college face similar challenges to adults enrolling for the first time in higher education, including limited time to devote to education, a need to balance obligations to family and work, and concerns with cost, financial aid and/or prior education debt (Graham, 2015; Karge, Phillips, Jessee, & McCabe, 2011; Silliman & Scheleifer, 2018). For colleges, outreach to adult students is more

challenging than outreach to high school seniors, as potential adults are not centrally located at local high schools, campuses may lack current contact information for them, and adults may have had prior negative academic experiences that led to them drop out (Carlson & Laderman, 2018).

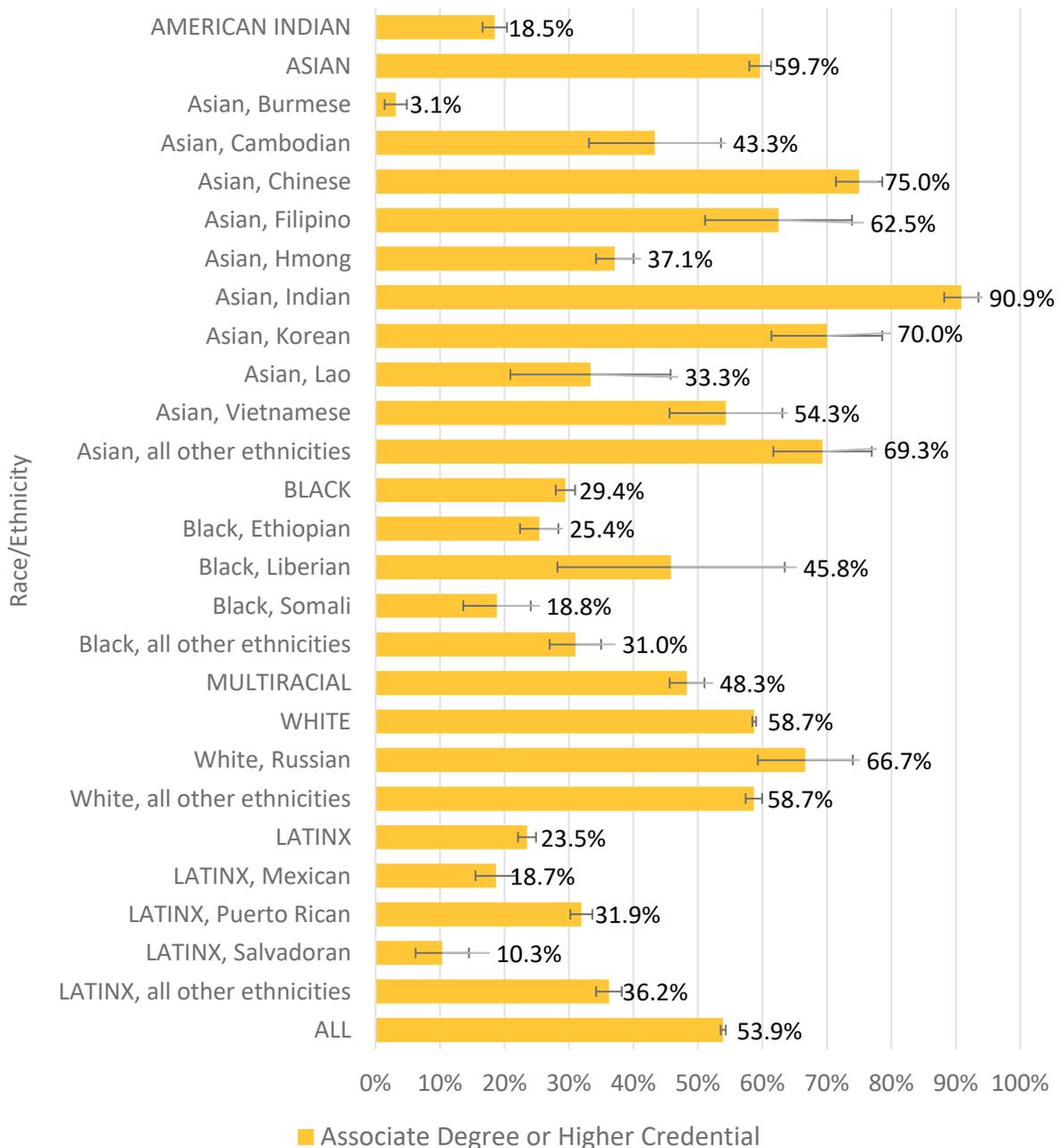
The economic advantage to adults returning to college has been shown — adults with some college but no degree earned \$802 per week on average as compared to associate degree graduates (\$862) and bachelor's degree graduates (\$1,198), and have higher unemployment rates (3.7% as compared to 2.8% and 2.2% respectively; U.S. Department of Labor, 2019). Much like in the case of adults who never pursued a degree, strategies to increase the overall state's educational attainment should include a plan for re-engaging adults who have some college but no degree. To engage these learners, institutions should adapt how they recruit adult learners to come back to school, provide more guidance about tuition and other financial costs of education (such as, housing, transportation, food), and should provide flexibility in class offerings, and should offer an array of services support adult learners in school until completion.

Conclusion

In summary, Minnesota is making steady progress towards the 70% educational attainment goal, but attainment gaps persist among people of color and American Indians. As the state is increasingly becoming more diverse, the need for more Minnesotans to become career ready is increasing, too. Analysis of data from the Minnesota Department of Employment and Economic Development (DEED) found that 68% of job openings 2016-2026 that pay a family-sustaining wage (\$55,548) will require a postsecondary credential (Minnesota Office of Higher Education, 2019). Unfortunately, many American Indian, Black, Asian, and Latinx Minnesotans are not earning credentials. 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 reduce its high school dropout rates, and increase postsecondary enrollment among students of color and American Indian students. Colleges should improve persistence and completion of all students, and in particular students of color and American Indians. There should also be a concerted effort to enroll adults with no college experience and re-engage adults with some college but no credential.

Appendix A. Associate Degree or Higher Attainment

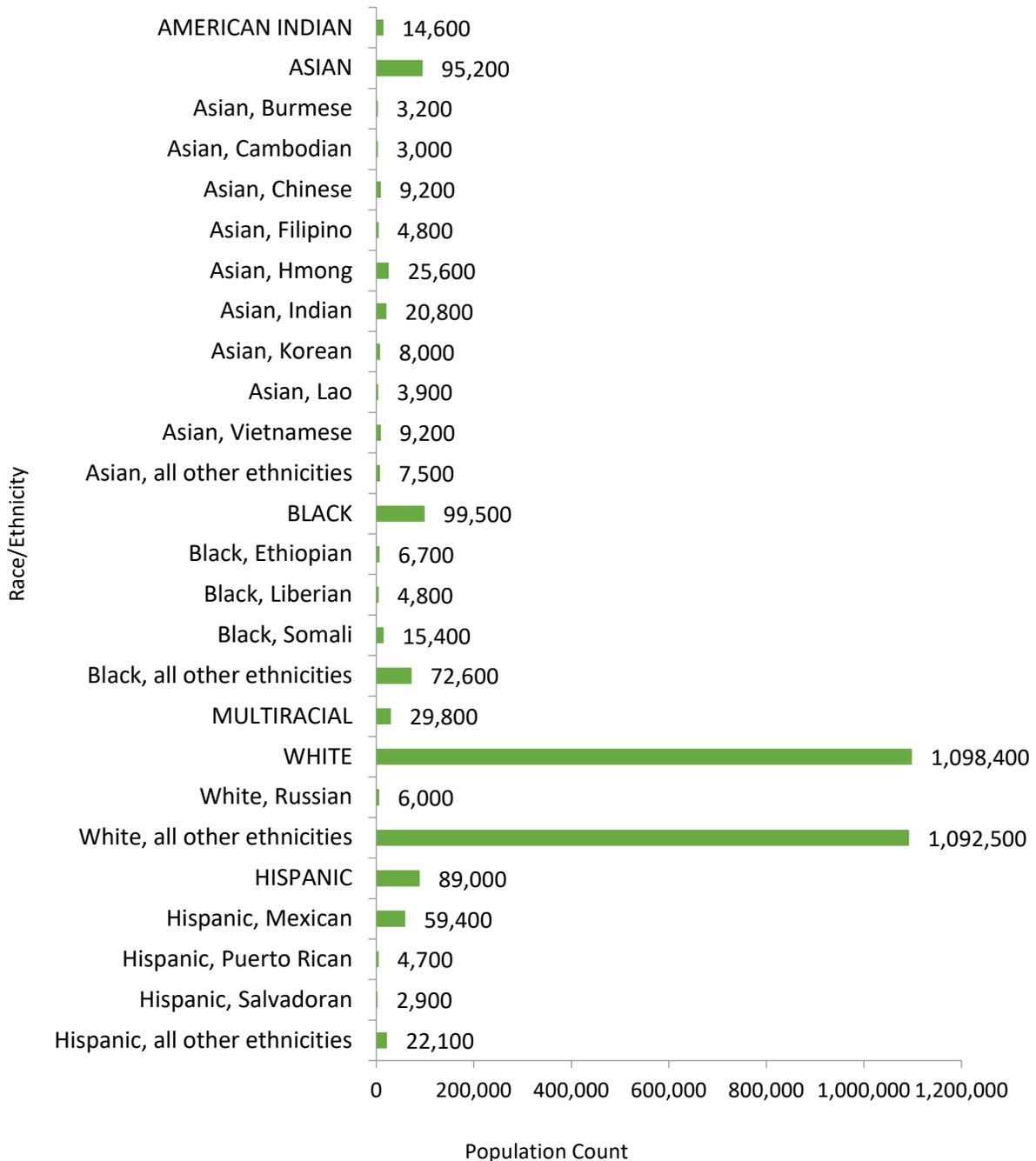
Figure 8: Educational Attainment for Associate Degree or Higher Credential, Disaggregated by Detailed Race/Ethnic Groups, Minnesota, 2019 Estimates



Source: IPUMS Microdata version of U.S. Census Bureau 2013-2017 American Community Survey with tabulations and analysis completed by the Minnesota Demographic Center.

Appendix B. Population Counts

Figure 9: Estimated Count of Persons Age 25-44 with an Associate or Higher Credential, Disaggregated by Detailed Race/Ethnic Groups, Minnesota, 2019 Estimates



Source: IPUMS Microdata version of U.S. Census Bureau 2013-2017 American Community Survey with tabulations and analysis completed by the Minnesota Demographic Center.

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