



Educating for the Future 2018 Annual Report

December 2018

Authors

Alex Hermida, Ph.D.

Senior Research Analyst

Tel: 651-259-3919

alex.hermida@state.mn.us

Leah Kelly

Graduate Research Intern

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 \$198 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.

Minnesota Office of Higher Education

1450 Energy Park Drive, Suite 350

Saint Paul, MN 55108-5227

Tel: 651.642.0567 or 800.657.3866

TTY Relay: 800.627.3529

Fax: 651.642.0675

Email: info.ohe@state.mn.us

Table of Contents

1. Introduction	1
What is educational attainment?	1
U.S. Educational Attainment	1
2. Minnesota Education Attainment Update	2
3. Characteristics of Persons with Postsecondary Credentials	5
Age	5
Gender	7
4. Factors that Influence Educational Attainment	8
Factor 1: High School Completion	8
Factor 2: College Enrollment	10
Factor 3: College Retention and Persistence	11
Factor 4: College Completion	15
5. Conclusion	16
Appendices	17
Appendix A: Age 25-44, Percentage with an Associate's or Higher Degree, Minnesota, 2012-2016, By Detailed Cultural Groups (Sorted)	17
Appendix B. Total Population Age 25-44, By Basic Race/Ethnicity Groups, 2014	18
Appendix C. Total Population Age 25-44, By Detailed Cultural Groups, 2014	19
References	20

1. Introduction

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. Data collected by the Minnesota Office of Higher Education, Minnesota State Colleges and Universities and the Minnesota Demographic Center combine to provide 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 a count of the population that holds a postsecondary credential (certificate, associate, bachelor's, master's, doctoral or professional degree). The sample of the population that is measured for educational attainment can vary widely depending on who is measuring. For example, the U.S. Census Bureau measures educational attainment rates by taking into account people who are 25-64 years old, while in Minnesota the educational attainment rate is calculated using people in the 25-44 age bracket to align it with the state's educational attainment goal (interval during which most individuals have completed their postsecondary education). These variations in measurement mean that the U.S. and Minnesota education attainment rates are not directly comparable, but rather should be used as guides that measure similar trends (the educational attainment of people).

U.S. Educational Attainment

According to *A Stronger Nation (2018)*, an attainment tracker published by the Lumina foundation, Minnesota ranks third in the U.S. in educational attainment for people 25-64 years old (54%)¹. The U.S. currently has a 46.9% national average of attainment. This indicates that nearly half of the U.S. population in that age range has obtained a postsecondary credential. At 54%, Minnesota trails Massachusetts (56.2%) and Colorado (55.7%) as the nation's top states for educational attainment. It is important, however, to highlight that this attainment reports includes a larger section of the population as part of the attainment goal (24-65 years old). By contrast, Minnesota's attainment goal population is limited to those between 25 and 44 years of age. This difference in the range of the population counted reflects the difference in attainment that is published by reports, such as *Stronger Nation* and *Minnesota's Educating for the Future* report. Regionally, Minnesota's educational attainment for ages 25-64 is considerably higher than neighboring states. When comparing the average educational attainment of Iowa (47.6%),

¹ Lumina includes high-quality credentials in their educational attainment figures. High-quality credentials are most certificate, associate, bachelor's, master's, and doctoral or professional degrees.

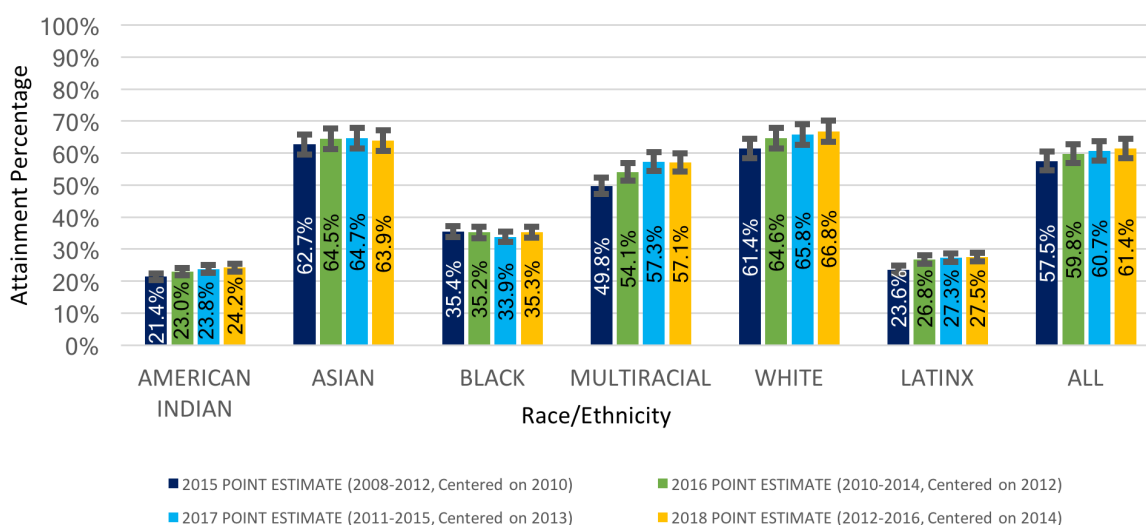
North Dakota (49.5%), South Dakota (45.7%) and Wisconsin (48.4%), Minnesota has a higher proportion of the population, between 25 and 64 years of age, who has obtained at least a certificate credential.

Despite Minnesota's high educational attainment rates, the Stronger Nation report highlights significant attainment gaps that exist for key Minnesota communities, including Black (29.1%), American Indian (19.4%) and Asian and Pacific Islander (53.7%) communities. These three racial groups have attainment rates lower than the national average (30%, 24%, and 61.7%, respectively). Latinx (23%) and White (52.4%) Minnesotans are the exception with educational attainment rates that are higher than the national average.

2. Minnesota Education Attainment Update

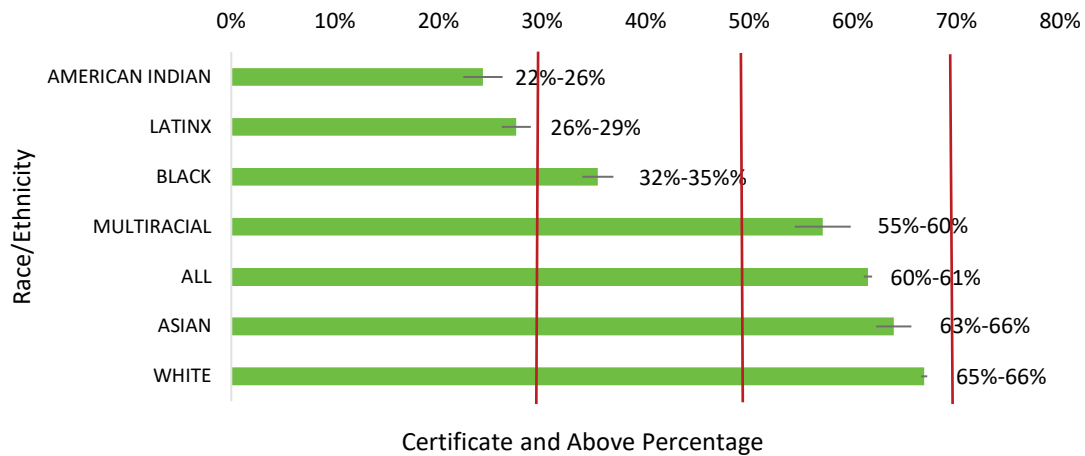
Minnesota's current educational attainment for ages 25-44 is 61.4% (Figure 1). The overall attainment percentage has increased, slightly, since last year. As shown in Figure 2, White Minnesotans have the highest educational attainment of any other racial/ethnic group with an attainment rate of about 66.8%. Whites, Asian Americans (63.9%), and people of multiracial ethnicities (57.1%) compose the racial/ethnic groups with the highest educational attainment rates in the state. By contrast, American Indian and Latinx Minnesotans have the lowest educational attainment rates at 24.2% and 27.5%, respectively. Both of these rates are below the 30% educational benchmarks established by the Legislature. Black Minnesotans have a 35.3% educational attainment rate, also considerably lower than the state average, but above the 30% benchmark. Figure 3 shows the estimated counts (with margin of error) of people ages 25-44 with a certificate or higher in Minnesota.

Figure 1: Age 25-44, Percentage with a Certificate or Higher Degree, Minnesota, 2015-2018, Basic Race Groups



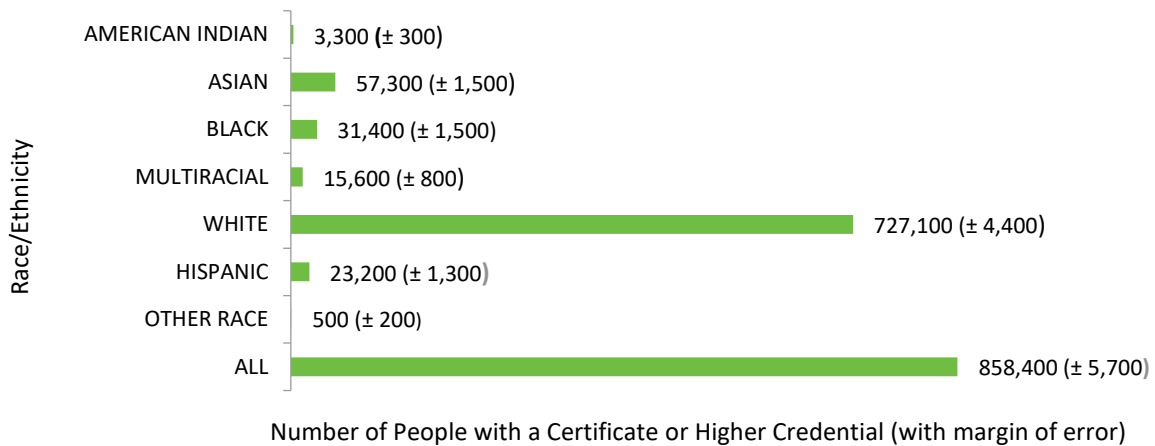
Source: IPUMS microdata version of U.S. Census Bureau 2012-2016 American Community Survey, with tabulations and additional analysis by the Minnesota Demographic Center

Figure 2: Age 25-44, Percentage with a Certificate or Higher Degree, Minnesota, 2014, Basic Race Groups (Sorted)



Source: IPUMS microdata version of U.S. Census Bureau 2012-2016 American Community Survey, with tabulations and additional analysis by the Minnesota Demographic Center

Figure 3: Age 25-44, People with a Certificate or Higher Credential, Minnesota, 2014, Basic Race Groups

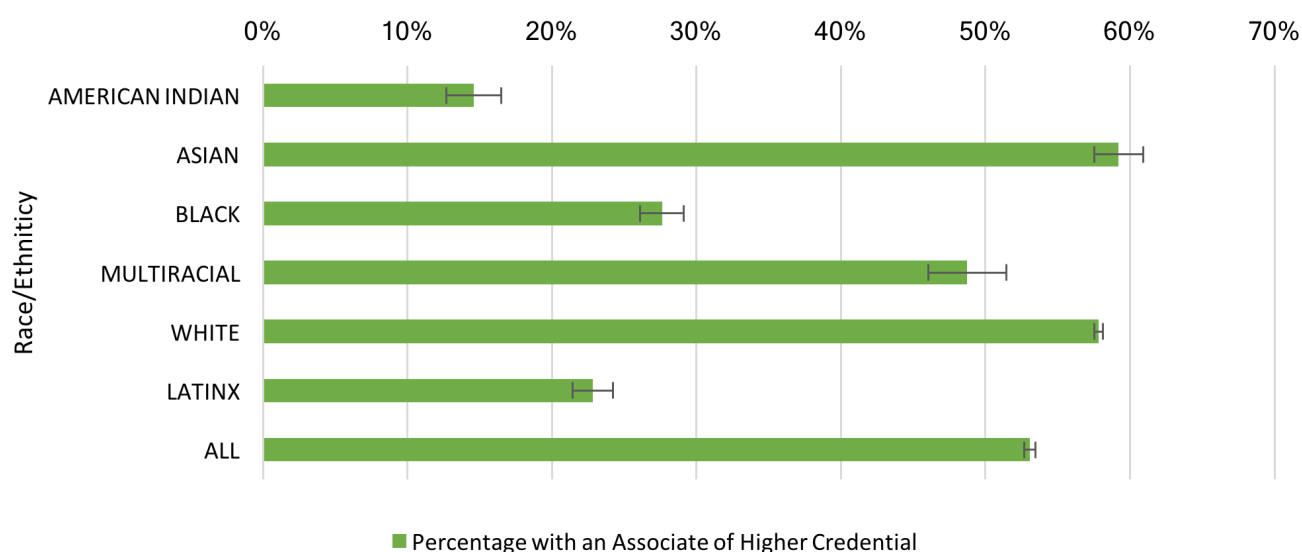


Source: IPUMS microdata version of U.S. Census Bureau 2012-2016 American Community Survey, with tabulations and additional analysis by the Minnesota Demographic Center

Figure 4 illustrates the estimated percentage of the population with an associate degree credential or higher. As shown, whites (57.8%) and Asian Americans (59.2%) have the highest attainment percentage of associate degree or higher credentials in the state. American Indians (14.6%) and Latinx (22.8%) have the lowest attainment percentage of associate degree or higher credentials in the state.

Comparing data shown in Figure 2 and Figure 4 provides some information about the makeup of the highest level of credential of a given population. For some populations, certificates comprise only a small number of the highest level of credentials obtained, while for others, they make up a large percentage of the highest credential obtained. For example, while 24.2% percent of American Indians have attained a certificate credential or higher, for 40% of those individuals a certificate is the highest credential attained. In contrast, 63.9% of Asian Americans have attained a certificate credential or higher, but only 7% of those individuals have attained a certificate as their highest level of credential. For Whites, who have the highest percentage of educational attainment in the state with 63.9% attainment, a certificate credential is the highest credential for 10% of those individuals. Blacks, Latinx and Multiracial individuals attained certificates as their highest level of credential at 22%, 17% and 16%, respectively.

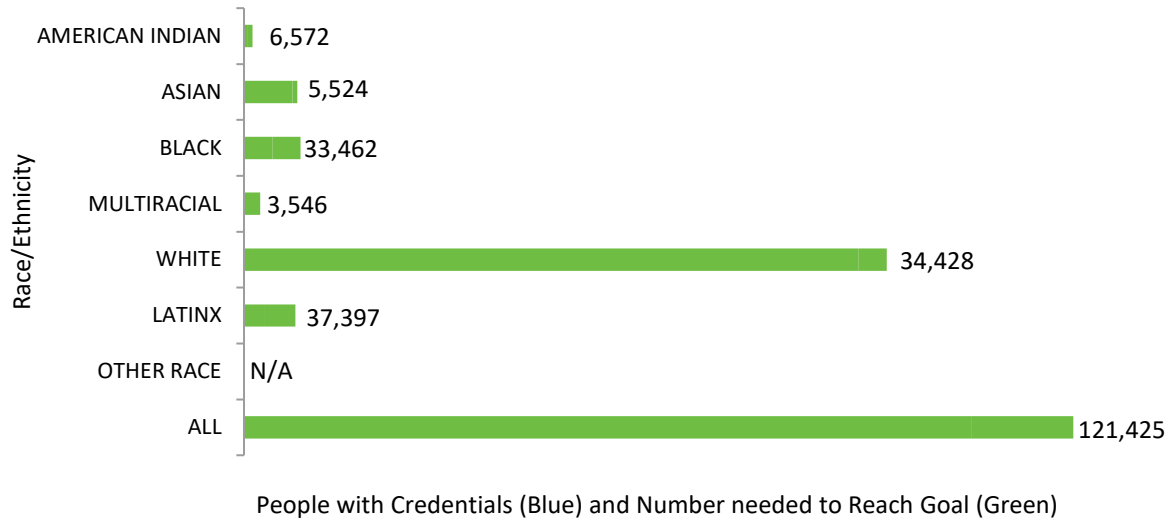
Figure 4: Age 25-44, Percentage with an Associates or Higher Credential, Minnesota, 2012-2016, By Basic Race/Ethnicity Groups (Sorted)



Source: IPUMS microdata version of U.S. Census Bureau 2012-2016 American Community Survey, with tabulations and additional analysis by the Minnesota Demographic Center

Figure 5 illustrates that 121,425 additional postsecondary credentials (certificates and beyond) are needed to reach the 70% educational attainment state goal. Of those, 37,397 must be attained by Latinx people, 34,428 from Whites, 33,462 from Blacks, 6,572 from American Indians, 5,524 from Asian Americans, and finally 3,546 from multiracial people. For some perspective, 71% of all future postsecondary credentials must come from racial and ethnic minorities, otherwise the state will not reach the 70% educational attainment goal equally across groups.

Figure 5: Age 25-44, People with a Certificate or Higher Degree, and Number Needed To Reach 70% Goal for Each Group (Labeled), By Basic Race Groups, Minnesota 2014



Source: IPUMS microdata version of U.S. Census Bureau 2012-2016 American Community Survey, with tabulations and additional analysis by the Minnesota Demographic Center

3. Characteristics of Persons with Postsecondary Credentials

This section highlights some of the characteristics of the cohort ages 25-44 with a postsecondary degree or certificate in the state. For purposes of comparison, some of the data in the figures will be grouped by minority and non-minority status. Minority groups, including American Indians, will be grouped using the term “people of color”. The non-minority group includes Whites only. Gender groupings are limited to female, male and unknown².

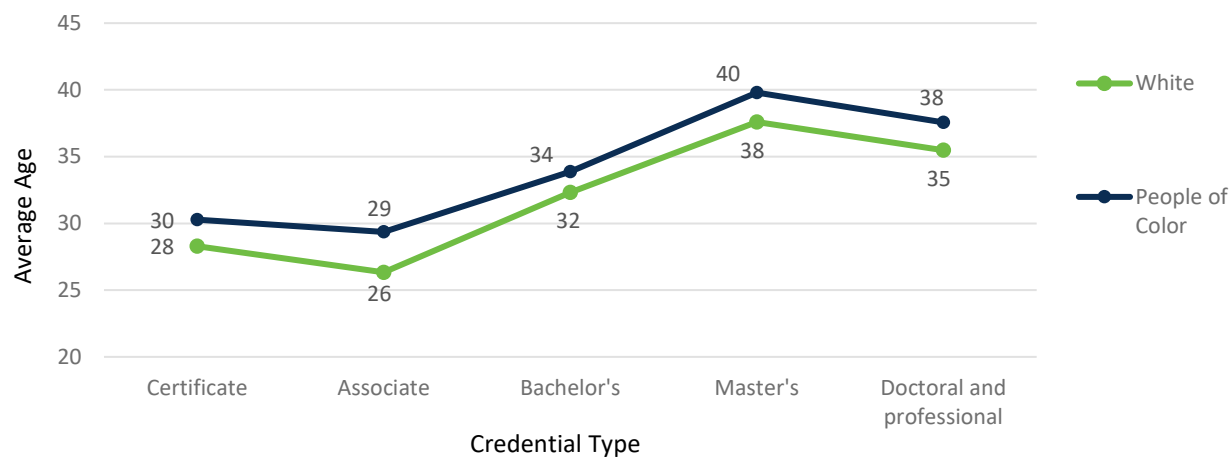
Age

Looking at the highest credential earned in the time period from 2007 until 2017, the average age of certificate and degree recipients in the state is slightly higher for people of color than for Whites (see Figure 6). For example, the average age of a White certificate recipient in the state is 28 years old, while for people of color it is 30. The difference, an average of two years, is also true among bachelor’s and master’s recipients. Associate and doctoral and professional degree recipients have a difference in average of three years between Whites and people of color. There is also a relationship between average

² Because the number of gender unknowns reported are so small (1.3 percent of the total) they have been removed from analysis to simplify the charts.

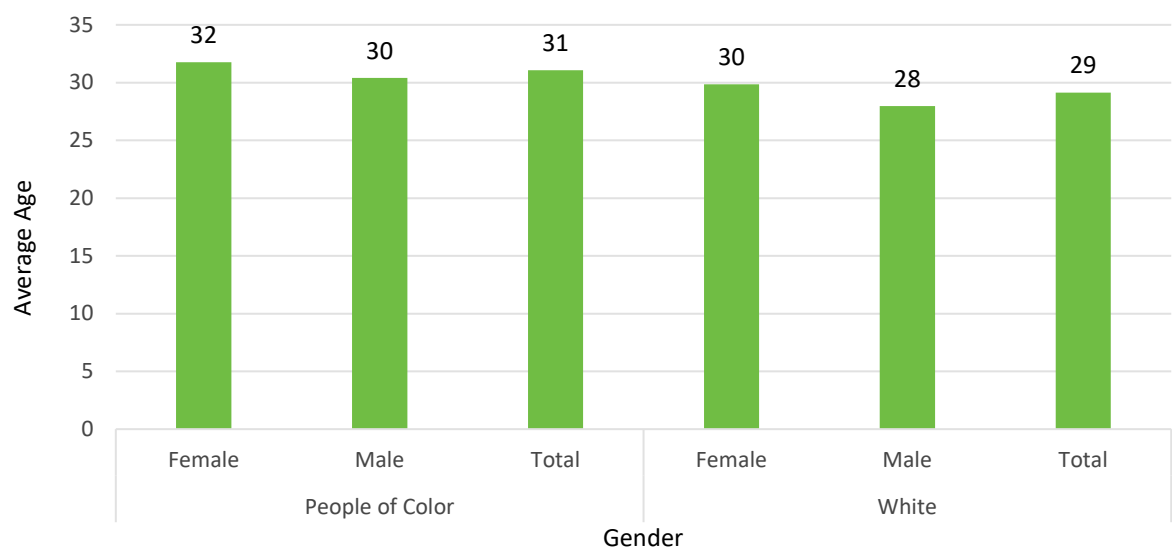
age of the degree or certificate recipient and their gender (Figure 7). Females of color typically have their highest degree or certificate awarded at a higher age (32 years old on average) compared to White females who earn their highest credential at an average age of 30 years old. White males have the lowest age of highest credential at 28 years old on average, while men of color earn their highest credential at the age of 30 on average. The low average age of credential for White males can be partially explained by the fact that females tend to pursue graduate degrees (master and doctoral or professional degrees) more so than males, which impacts the average age at highest credential (see Figure 8).

Figure 6: Average Age at Highest Credential (2007 - 2017)



Source: Minnesota Office of Higher Education

Figure 7: Average Age at Highest Credential by Gender

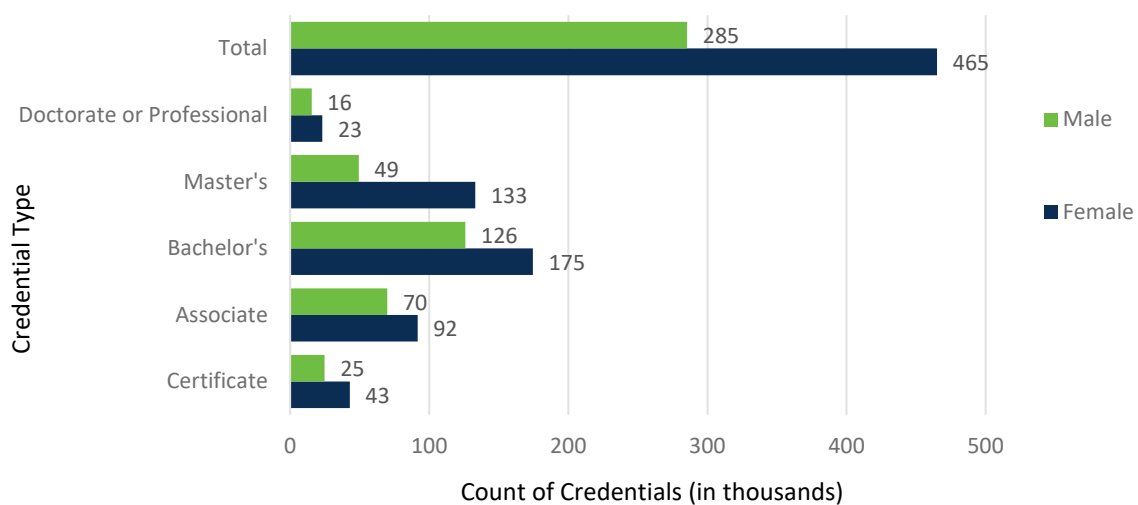


Source: Minnesota Office of Higher Education

Gender

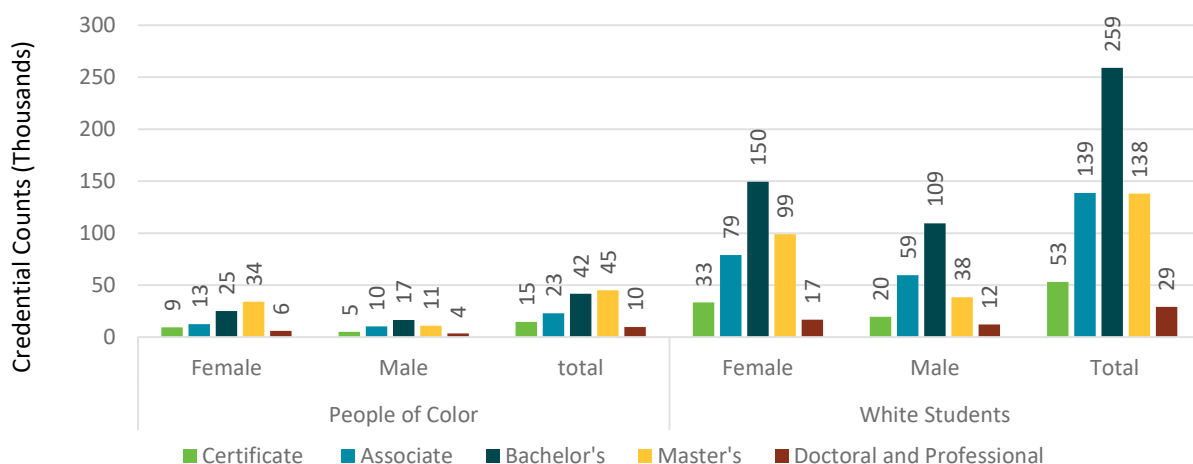
Gender and highest credential attained are illustrated in Figure 8. As shown, females attain postsecondary credentials at higher rates than males in the state. Between 2007 and 2017, 465,084 postsecondary credentials were awarded to females, while only 285,357 postsecondary credentials were awarded to males. Figure 8 also shows the general distribution of credentials attained in the state; the most common credential attained was bachelor's degree, followed by master's degree. Finally, females are attaining master's degrees at higher rates than males.

Figure 8: Highest Credential Attained by Gender (2007 - 2017)



Source: Minnesota Office of Higher Education

Figure 9: Highest Credential Awarded by Minority Status and Gender (2007 - 2017)



Source: Minnesota Office of Higher Education

Figure 9 illustrates the intersectionality of highest credential awarded, gender and race. As mentioned previously, females make up a larger proportion of postsecondary credentials than males. This pattern is true among people of color, too. Females of color attain more postsecondary credentials than males of color. What is unique about this data is the number of credentials awarded to females of color at the bachelor's, and master's degree levels, suggesting that more females of color are continuing their education to a master's degree level versus males of color who typically stop at the bachelor's level. This pattern is not seen among white females; the bachelor's degree is by far, the most common credential attained among this population.

4. Factors that Influence Educational Attainment

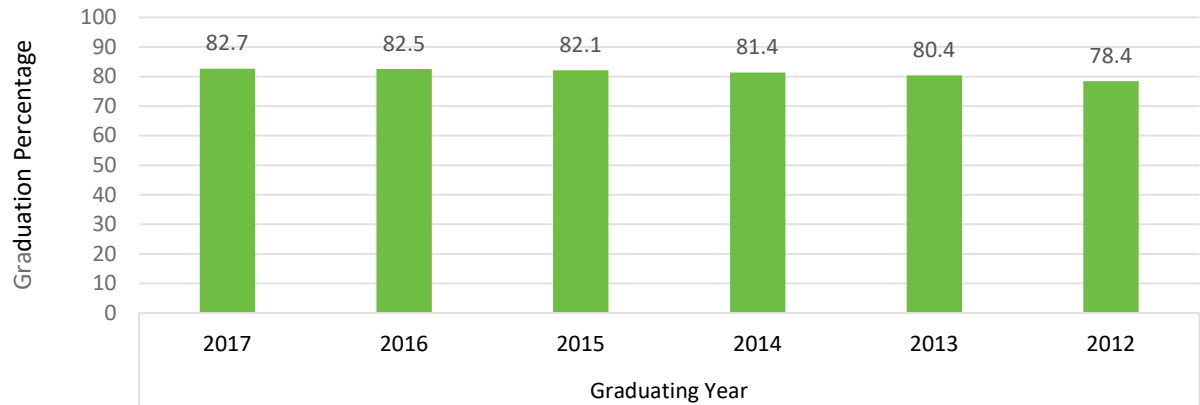
Along with an update to the progress of the educational attainment goal this report will address four factors that are critical to reaching Minnesota's postsecondary credential attainment rate goal of 70% by 2025:

- High school completion
- College enrollment, both in and out of state
- College persistence and retention
- College completion

Factor 1: High School Completion

Preparation for college begins well before high school and is influenced by a number of factors outside of formal education. However, within the context of higher education, the first factor contributing to postsecondary attainment is high school preparation and completion.

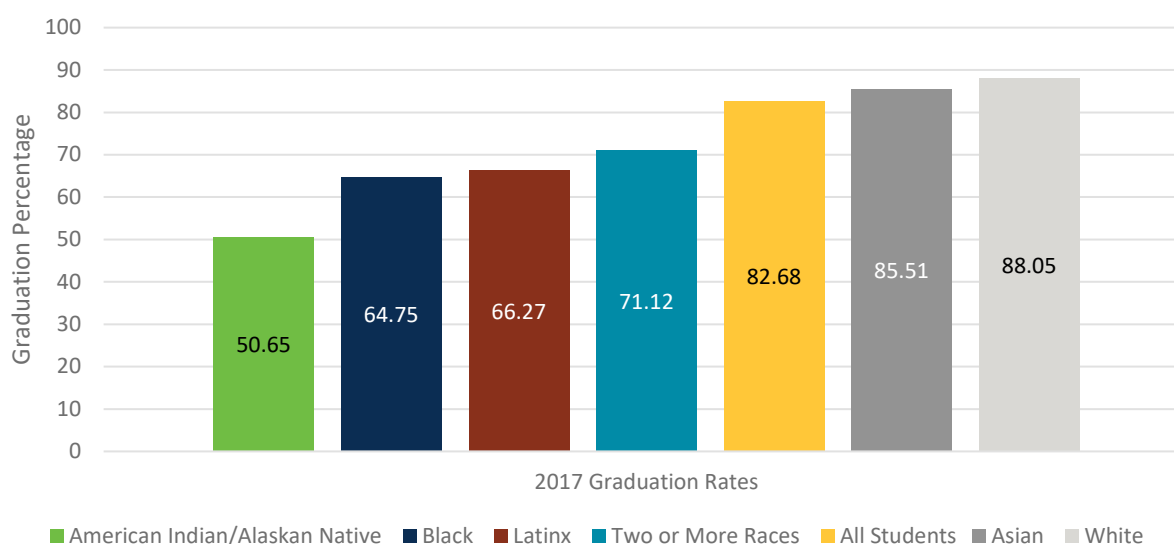
Figure 10: Minnesota Four-Year Graduation Rate



Source: Minnesota Department of Education

Minnesota's public high school four-year graduation rate has steadily increased for the past six years, from 78% in the class of 2012 to 83% (or approximately 55,000 students) in the class of 2017 (National Center for Education Statistics [NCES], 2017; Minnesota Department of Education [MDE], 2018). Although increasing high school graduation rates is an important lever for increasing postsecondary attainment, major growth in this area is constrained by population growth. Increasing graduation rates among traditional age students is limited by the number of 12th grade students in Minnesota's public high schools, which will only grow an estimated 5.8% between 2018 and 2025 (Minnesota Report Card, 2018) with a significant proportion of the growth coming from students of color and American Indian students. At the current graduation rate, the growth of graduates will increase on average by an additional 2,400 per year over the next seven years (Knocking at the College Door, 2018).

Figure 11: 2017 Minnesota High School Graduation Rates by Race/Ethnicity



Source: Minnesota Department of Education

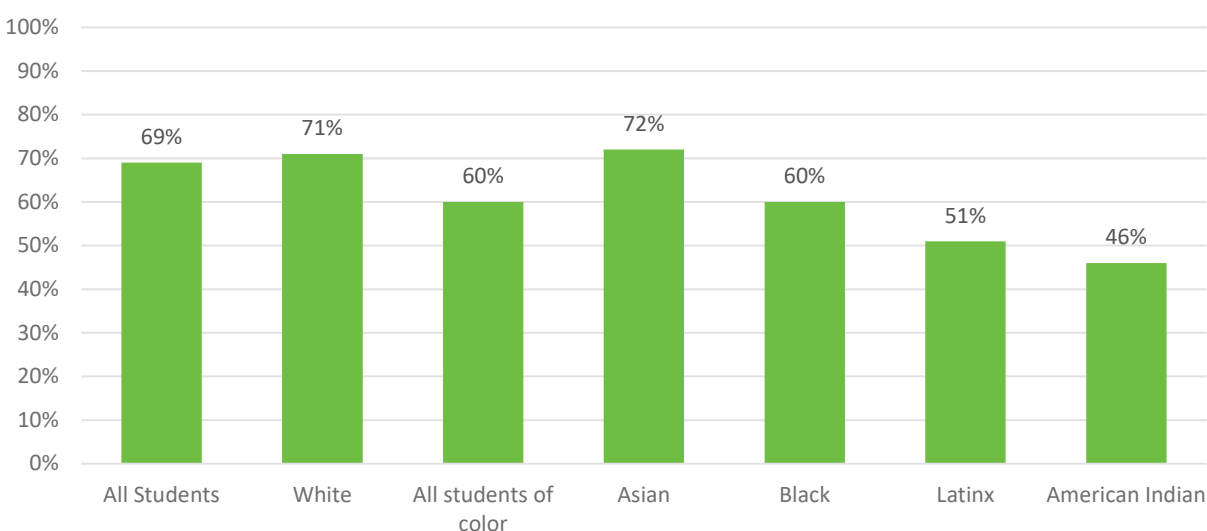
While Minnesota high school graduation rates have increased for all racial groups, overall, high school graduation rates for students of color and American Indian students are much lower than that of White students (with the exception of Asians Americans) (Figure 11). In 2017, students of color and American Indian students graduated at rates over 20 percentage points below the state rate of their White counterparts (88%): 64.75% for Black students, 66.27% for Latinx students, and 50.65 % for American Indian students (Minnesota Report Card, 2018). Increasing the high school graduation rates among students of color and American Indian students would be particularly impactful on Minnesota's 70% postsecondary attainment goal because the number of White high school graduates will take a slight decline in years to come while students of color are projected to increase.

Factor 2: College Enrollment

Beginning a postsecondary program is the first step to completing it, which is why enrollment is the next factor critical to Minnesota's 70% attainment goal. Individuals are motivated to enroll in postsecondary education not only as an investment in their future earning power but also for the social benefits that a college experience can offer. Two populations are identified for increasing college enrollment: high school graduates and adult learners (non-traditional age students). Non-traditional age student refers to any student age 25 and older who either never enrolled in college after high school, or enrolled in college but didn't complete. Institutions can adopt best practices to encourage enrollment in both of these populations. However, it should be considered that there are also external factors that influence higher education enrollment, such as economic recessions.

The majority of newly-enrolled students in postsecondary institutions graduated from high school within the past year. Minnesota has the one of the highest overall recent graduate postsecondary enrollment rates in the country: 69% or approximately 40,000 high school graduates (2017) enrolled in college, either in-state or out-of-state, the fall after graduation (Minnesota Statewide Longitudinal Education Data System [SLEDs], 2018). While increasing enrollment numbers of traditional-age students is constrained by the size of Minnesota's high school graduating class, there are some best practices for increasing enrollment for this population. In particular, efforts designed to increase enrollment for populations of color can have a big impact on Minnesota's attainment goal. As shown in Figure 12, only 60% of high school students of color (including American Indian students) enrolled in college the fall after graduation. In 2017, American Indian high school graduates had the lowest postsecondary enrollment rate at 46%, enrollment of Latinx students was at 51%, and enrollment of Black students was at 60% (SLEDs, 2018).

Figure 12: Percent of 2017 High School Graduates Enrolling in College in Fall by Race/Ethnicity



Source: SLEDs

Targeted marketing to potential students and outreach to parents and families of potential students have been shown to increase the likelihood of college enrollment for all students and students of color and American Indian students, in particular (Strand, 2013). Simplification of the application process and elimination of standardized test entrance requirements may also encourage enrollment by students who may otherwise not enroll in college (Harper, Patton, & Wooden, 2009). Increasing traditional-age enrollment by 1% would increase the number of enrollees by an average of 700 students per year (Knocking at the College Door, 2017).

Increasing enrollment among non-traditional students could also help the state achieve its 70% attainment goal. This would include individuals who never completed high school, or who completed high school but never enrolled in college. An estimated 27% of Minnesotans ages 25 to 44 (377,000 individuals) fall into this group. However, there are barriers to enrolling non-traditional students as first-time students in college. Facilitating non-traditional student enrollment may require institutions to redesign office and class hours, rethink student services, redefine ways students can get involved in institutional life, create additional credit acceptance policies for life and work experiences, and possibly change admissions criteria (Fairchild, 2003). Non-traditional undergraduates tend to enroll part-time at higher percentages and have lower completion rates.

Finally, state economic conditions also play a significant role in college enrollment for all populations. National data indicates that postsecondary enrollment rates decrease as unemployment rate increases (Kaul, 2018). Indeed, the years immediately following the 2008 financial crisis saw the highest postsecondary enrollment rates in Minnesota State Colleges and Universities in the past two decades, but, as the economy improved, postsecondary enrollment declined (NCES, 2018). Minnesota undergraduate enrollment is at its lowest level since 2001. Enrollment in Minnesota State Colleges and Universities has declined 20 percent since 2010 and is at its lowest level since 2002 (Student Enrollment Data, 2018). The University of Minnesota system is the only exception to this pattern, which saw its highest enrollment in the past two decades in the fall of 2017 and has maintained its enrollment figures since 2010, reflecting selectivity of the Twin Cities campus (Official Enrollment Statistics, 2018).

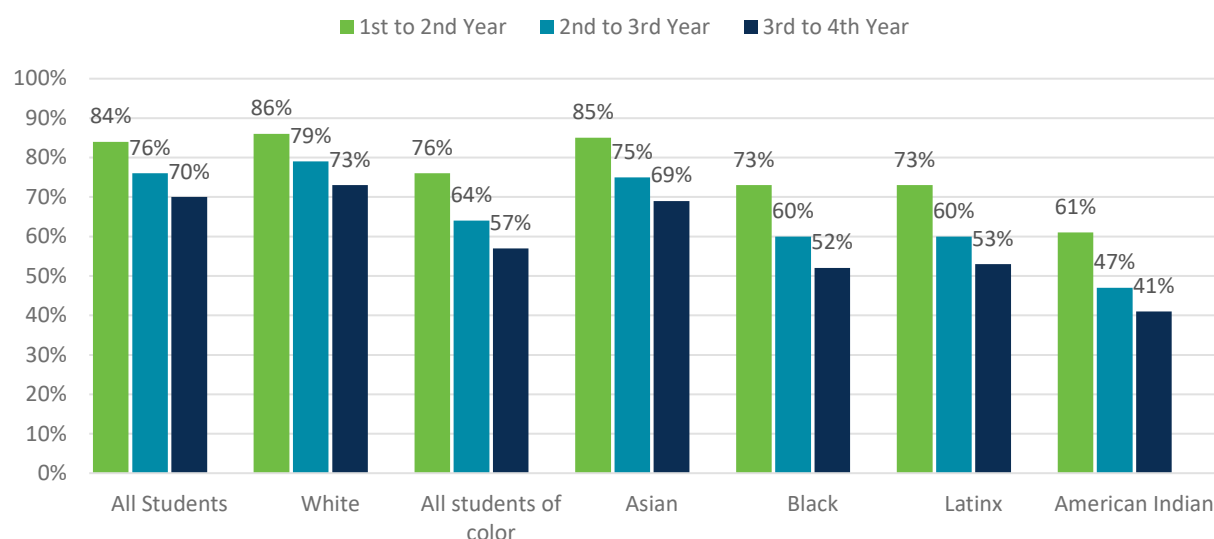
Factor 3: College Retention and Persistence

Once students have enrolled in college, keeping them in school and on the path to graduate is the next important factor contributing to postsecondary attainment. Retention refers to continued enrollment from year to year at the same higher education institution, while persistence refers to continued enrollment from year to year at *any* higher education institution. This report will emphasize college persistence over retention because it is a broader and more suitable measure for Minnesota's progress towards its 70% postsecondary attainment goal. Increasing persistence can be achieved by getting more currently-enrolled postsecondary students to stay in school until they graduate or getting more individuals who dropped out of college to re-enroll and complete their credential.

Persistence of currently-enrolled students is measured by the percentage that remains enrolled the subsequent year of their credential program in progress to graduation. Of all 2013 high school graduates that started college in the fall of their graduation year, 84% made it to the second year of their program (or graduated if they were in a short term program), 76% made it to their third year, and

69% made it to their fourth year (Completing College, 2018). Persistence varies greatly across race, age, and institution type. Postsecondary persistence can be affected by a variety of factors, including financial and emotional stressors of college, general incongruence between home and college life, and lack of academic preparedness for college-level work (Kuh, Cruce, Shoup, Kinzie & Gonvea, 2008). As in enrollment, postsecondary institutions can follow some best practices to encourage persistence for specific student populations and students overall.

Figure 13: Percent of 2013 High School Graduates Persisting or Completing in College in Fall by Race/Ethnicity



Source: SLEDs

Persistence rates for students of color and American Indian students are lower and fall faster than persistence rates for white students. As shown in Figure 13, only 76% of students of color (including American Indian students) persist onto the second year of their program (or graduated if they were in a short term programs), only 64% persist onto their third year, and 56% persist onto their fourth year. These rates are particularly low for Black and Latinx students, whose persistence rates onto second, third, and fourth years are 73%, 60%, and 51%, respectively. For American Indian students, persistence rates are even lower, with less than half of high school graduates who enrolled in four-year programs making it to their third year, and less than 40% following through their fourth year (Educational Attainment Goal 2025, 2018). Low persistence for students of color and American Indian students in Minnesota can often be attributed to difficulty in socialization and acclimation to college life at predominantly white institutions (institutions in which white students account for 50% or more of the student body) (Lomotey, 2009). Increased persistence for students of color and American Indian students can be achieved by holding frequent and intentional interactions with faculty and staff of color, implementing institutional programs, and fostering campus communities designed specifically to address their needs (Harris III & Wood, 2013; Opp, 2002; Museus & Harris, 2010; Museus & Quaye, 2009; Solorzano, Villalpano & Oseguera, 2005).

Individuals who enter a postsecondary program at or below the age of 20 also tend to persist at higher rates than students who enter at 21 years of age or above (Persistence and Retention - 2017, 2017). Younger students are often better suited to acclimate to college life because being a student is still a familiar experience for them and because they are less likely to have family and professional responsibilities that compete for their time. Younger students are also more likely to live on campus and participate in extra-curricular activities, both of which have been shown to positively impact persistence (Kuh et. al., 2008). Older students, whether or not they classify as adult learners, often benefit from flexible class hours, distance learning options, and accelerated course formats to keep them in school and on the path to graduate (Ross-Gordon, 2011).

Finally, students enrolled in public two-year colleges persist at the lower rates than students at any other institution type in Minnesota (Integrated Postsecondary Education Data System [IPEDS], 2017); populations that often require the most support to persist in higher education -students of color, American Indian students, adult learners, and first generation students- are concentrated in these institutions. This is explained in part by open enrollment policies at two-year colleges that offer access to anyone who holds a high school diploma or General Educational Development certificate (GED). Providing services and support to a vast array of student populations is a challenge that requires public two-year colleges to be flexible in the way they treat higher education learning. Additionally, public two-year colleges are often tasked to serve a dual purpose: both offer terminal associate degrees and provide a pathway to four-year programs at other institutions. Given the challenges that public two-year colleges students face, it is important that in the initial enrollment phase -and throughout their academic career- students are exposed to consistent advising, so they understand how long it will take them to finish their degree or certificate program and what courses they need to take if they intend to transfer to a four-year institution (Green, 2006; Harris III & Wood, 2013; Opp, 2002).

For all currently-enrolled students, the most effective best practice in encouraging persistence is getting students engaged. Student engagement has been shown to be most impactful between the first and second years of a postsecondary program (Tinto, 2006). Engagement happens both in and out of the classroom. Faculty and staff play a large role in fostering a sense of inclusion and belonging on campus and can positively impact the student experience by making themselves available outside of normal classroom hours. Required academic advising also positively affects persistence because it helps students track their academic progress and time to completion, and ensures that students are fulfilling the requirements necessary for their credential. Financial advising and personal or group counseling provide students with support outside of the classroom and can serve as an early warning system to detect students who are struggling (Soria & Stebleton, 2012). Institutional support for and promotion of extra-curricular sports, clubs, and organizations is also a great way to get students involved and bonded to their academic life. All of these student engagement initiatives are particularly important for first-generation college students who may lack the social capital related to being successful in higher education. These students benefit greatly from academic and community engagement on campus. Student initiatives designed particularly for first-generation students and underrepresented populations, such as summer bridge programs, first-year orientations and seminars, living and learning communities, and peer tutoring and mentoring, can go a long way in helping students to feel at home in higher education (Reason, 2003).

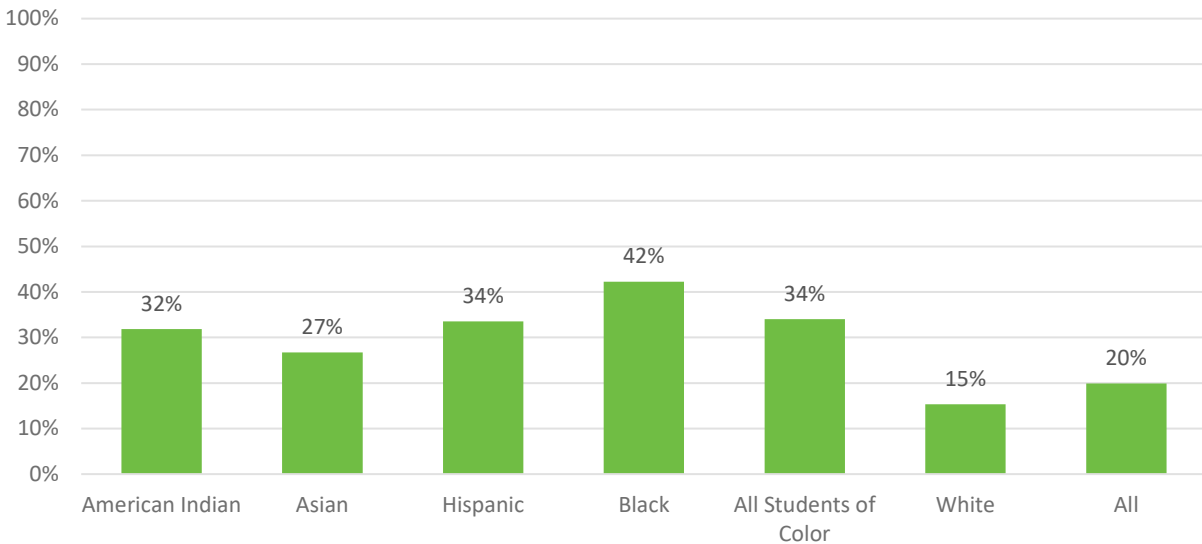
The other component of persistence crucial to Minnesota's 70% postsecondary attainment goal is getting individuals who dropped out of college to re-enroll and complete their credential. Among Minnesota adults ages 25 to 44, an estimated 10% of the population (138,000 individuals) enrolled in college, but did not complete a certificate or degree. The 138,000 individuals include: 2,185 American Indians, 6,435 Asians, 14,127 Blacks, 6,850 Latinx, 4,313 multiracial Minnesotans, and 103,772 Whites (U.S. Census Bureau, 2018).

Assisting these individuals in completing a postsecondary credential will move Minnesota closer toward its educational attainment goal. However, this lever will have limited effect over time. College graduation rates have been slowly increasing each year and an increased percentage of younger adults have college credentials. In combination, these trends should diminish the number of people in this age group who have dropped out of college over time. Additionally, encouraging these older (non-traditional) students to re-enroll and complete college presents a challenge for institutions, as discussed in the enrollment factor.

The final piece of the persistence puzzle is developmental education. Effective implementation of developmental education can encourage continued persistence in currently-enrolled students and create a bridge back to higher education for people who have dropped out. In this way, developmental education plays a vital role in postsecondary attainment for traditional and non-traditional students who want to pursue a postsecondary credential, but are not currently prepared for college-level work. Developmental education refers to any pre-college-level education or other academic support services designed to prepare students for success in college-level work.

Of the approximately 29,000 Minnesota high school graduates in 2016 enrolling in a Minnesota postsecondary institution, 20% (5,661 students) enrolled in one of more developmental education courses during their first year of college. Developmental education enrollment rates vary by race, age, and institution type. As shown in Figure 14, 34% of 2016 high school graduates of color (includes American Indian students) enrolled in developmental education, compared to only 15% of their White counterparts (Getting Prepared, 2018). Additionally, 62% of the developmental credits taken in fall 2017 were by non-traditional age students (OHE, 2018). The vast majority (83%) of students taking developmental education classes were enrolled in public two-year colleges, while 14% were enrolled in four-year Minnesota State Universities, and only 1% attended the University of Minnesota and private four-year institutions. The high developmental education enrollment rate at the Minnesota State system relates to factors discussed previously (Getting Prepared, 2018). Postsecondary undergraduates who enroll in developmental education tend to have lower completion rates than those who do not enroll (Developmental Education, 2018). Making developmental education more accessible and effective can play a role in increasing persistence and completion among these populations.

Figure 14: Percent of 2016 High School Graduates Enrolling in Developmental Education by Race/Ethnicity



Source: SLEDs

Factor 4: College Completion

Completion of a postsecondary program marks the final stage in the path to postsecondary attainment and is the obvious final factor critical to Minnesota's 70% attainment goal. Increasing college completion rests heavily on persistence, but there are some steps postsecondary institutions can take to increase their completion rates, including encouraging students to enroll full-time.

One of the most important aspects of student completion is getting students to enroll full-time or as close to full-time as possible. Though this factor is also related to persistence, the main benefits of full-time enrollment are realized when a student gets close to completing their credential. While the federal government considers students to be full-time if they complete 12 or more credits a semester, in order to finish a two-year or four-year credential on time without summer classes, a student needs to be enrolled in an average of 15 credits per semester. Doing so has been shown to increase the probability of college completion and decrease the overall cost of attendance (15 to Finish, 2017). Data from Minnesota postsecondary institutions shows that regardless of institution type, a first-time, full-time undergraduate in a four-year program has a low chance of completing their degree in six years, if they did not complete it in four, and will rarely (3.3% of the time, weighed average across institutions) complete their degree in eight years, if they did not complete it in six (Graduation Rates, 2018).

The University of Minnesota system has the highest graduation rates in the state: in 2015, 47% of first-time undergraduates graduated in 100% time, or four years; 69% graduated in six years; and 71% graduated in eight years. Examining this data differently, 41.5% of students that didn't complete their degree in four years, completed it in six years, and only 6% of students who didn't complete their degree

in six years, completed it in eight years (Graduation Rates, 2018). We see this pattern also in institutions across Minnesota: undergraduate students who complete their degree on time have the highest likelihood of completing it at all. At four-year private colleges, 45% of undergraduate students graduated in four years and 65% of students graduated in eight years. This means that only 36% of students who didn't graduate in four years graduated in eight years, and the vast majority of the remaining 64% didn't graduate at all. This trend is particularly acute in community colleges. The two-year completion rate for community colleges was 22% in 2015, and the four-year completion rate was 29%; only 9% of students who didn't complete their degree in two years did so in four.

5. Conclusion

By 2025, one in three children enrolled in Minnesota's education pipeline will be Latinx, Black, American Indian, or Asian (Early Childhood Longitudinal Data System [ECLS], 2018). Of those students of color and American Indian students, half will be first-generation college students. Another third will receive free-or-reduced-priced lunch. One in six will receive special education services. One in 12 will be limited-English proficient, and one in 100 will experience homelessness (Minnesota Report Card, 2018). All of them will face a job market that will require a higher level of skill in order to remain competitive and earn a family sustaining wage in Minnesota.

Because of their growing numbers, the educational achievement of Minnesota's student of color population has implications for the state's economy, local labor markets, and prospects for upward social mobility for millions of Minnesotans.

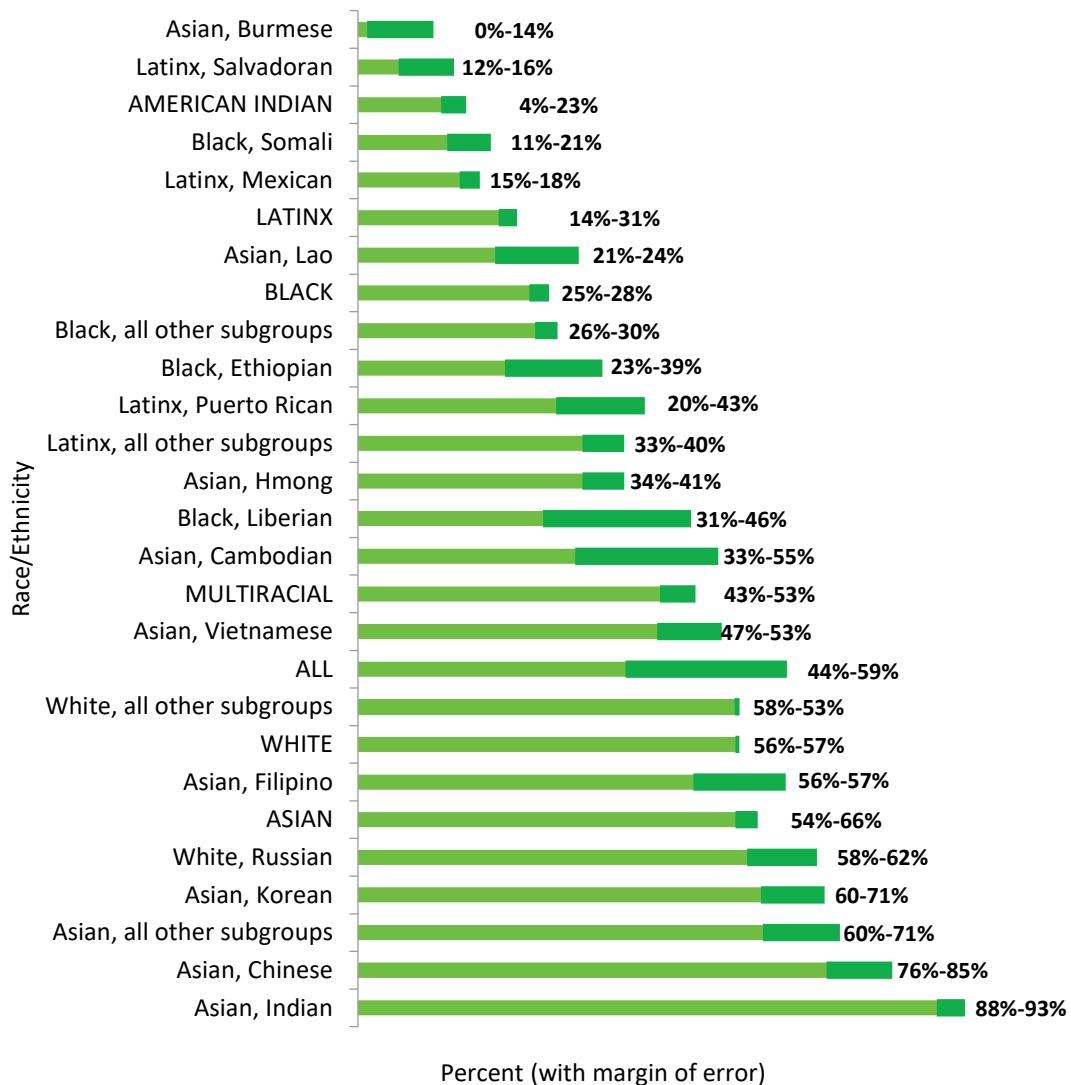
Currently, six years away from the 2025 deadline, educational outcomes for students of color lag behind those of White students in many critical measures, despite modest gains and robust efforts to increase high school graduation rates and college readiness for the state's most vulnerable students. For example:

- Graduation rates for Minnesota high school students of color and American Indian students range from 35 - 10 percentage points lower than White students
- Only about 61% of high school students enroll in postsecondary institutions after graduation
- 76% of students of color and American Indian students persist to their second year of their postsecondary program

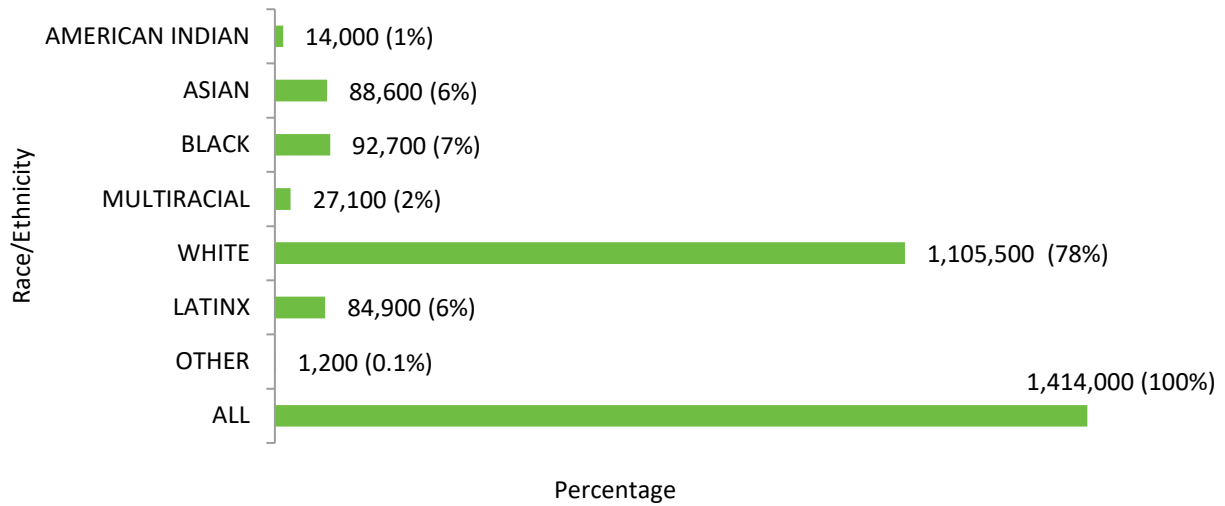
Minnesota will not reach the 2025 goal of 70% attainment if the current trends remain unchanged. Moving forward, it is imperative that Minnesota enacts policies that specifically target racial/ethnic minorities and American Indians to improve their educational attainment. Focusing on barriers and finding solutions for racial/ethnic minorities and American Indian communities are key to the state's success and overall workforce readiness.

Appendices

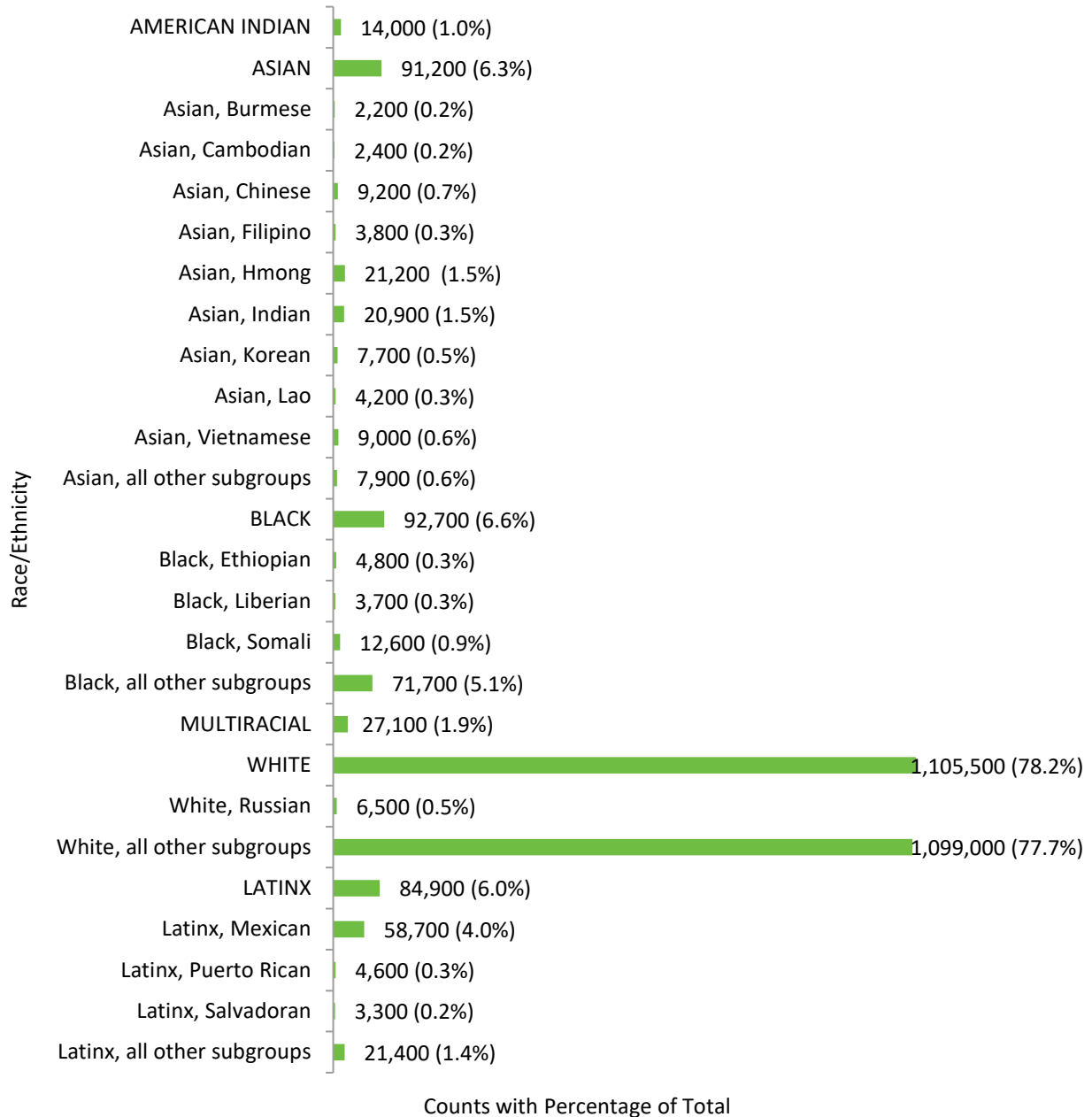
Appendix A: Age 25-44, Percentage with an Associate's or Higher Degree, Minnesota, 2012-2016, By Detailed Cultural Groups (Sorted)



Appendix B. Total Population Age 25-44, By Basic Race/Ethnicity Groups, 2014



Appendix C. Total Population Age 25-44, By Detailed Cultural Groups, 2014



References

- 15 to Finish. (2018, December 1). Retrieved from Complete College America: <https://completecollege.org/strategy/15-to-finish/>
- Allen, M. (2017). The Relevance of Critical Race Theory: Impact on Students of Color. *Urban Education Research & Policy Annuals*, 5(1).
- Association of American Colleges and Universities. (2015). Step Up & Lead for Equity: What Higher Education Can Do to Reverse Our Deepening Divides. Association of American Colleges and Universities.
- Attewell, P., Lavin, D., Domina, T., & Levey, T. (2006). New evidence on college remediation. *The Journal of Higher Education*, 77(5), 886-924.
- Bettinger, E. P., & Long, B. T. (2009). Addressing the needs of underprepared students in higher education does college remediation work? *Journal of Human resources*, 44(3), 736-771.
- Castellanos, J., & Gloria, A. M. (2007). Research considerations and theoretical application for best practices in higher education: Latina/os achieving success. *Journal of Hispanic Higher Education*, 6(4), 378-396.
- Completing College. (2018, December 1). Retrieved from Minnesota Statewide Longitudinal Education Data System: http://sleds.mn.gov/#stayingInAndCompletingCollege/orgId--999999000__groupType--state__ECODEVREGION--FOC_NONE__completingCollegeCOHORTID--2016__p--1
- Connelly, R., Gayle, V., & Lambert, P. S. (2016). A review of educational attainment measures for social survey research. *Methodological Innovations*, 9, 2059799116638001.
- Darling-Hammond, L. (2007). Third annual Brown lecture in education research—The flat earth and education: How America’s commitment to equity will determine our future. *Educational researcher*, 36(6), 318-334.
- Developmental Education. (2018, December 1). Retrieved from MN SLEDs: http://sleds.mn.gov/#developmentalEducation/orgId--999999000__groupType--state__ECODEVREGION--FOC_NONE__devEdCOHORTID--2017__p--1
- Donavant, B. W. (2009). The new, modern practice of adult education: Online instruction in a continuing professional education setting. *Adult Education Quarterly*, 59(3), 227-245.
- Educational Attainment Goal 2025. (2018, December 1). Retrieved from Minnesota Office of Higher Education: <https://www.ohe.state.mn.us/mPg.cfm?pageID=2187>
- Fairchild, E. E. (2003). Multiple roles of adult learners. *New directions for student services*, 2003(102), 11-16.

Getting Prepared. (2018, December 1). Retrieved from Minnesota Office of Higher Education: <https://www.ohe.state.mn.us/mPg.cfm?pageID=2102>

Graduation Rates. (2018, December 1). Retrieved from Minnesota Office of Higher Education: <http://www.ohe.state.mn.us/sPages/GraduationRates.cfm>

Green, D. (2006). Historically underserved students: What we know, what we still need to know. *New Directions for Community Colleges*, 2006(135), 21-28.

Harper, S. R., Patton, L. D., & Wooden, O. S. (2009). Access and equity for African American students in higher education: A critical race historical analysis of policy efforts. *The Journal of Higher Education*, 80(4), 389-414.

Harris III, F., & Wood, J. L. (2013). Student success for men of color in community colleges: A review of published literature and research, 1998–2012. *Journal of Diversity in Higher Education*, 6(3), 174.

Intergrated Postsecondary Education Data System (IPEDS). (2018, December 1). Retrieved from National Center for Education Statistics: <https://nces.ed.gov/ipeds/>

Jimenez, N. (2012). Higher education: understanding the identity and retention of Latino (a) students.

King, J. B., McIntosh, A., Bell-Ellwanger, J., Schak, O., Metzger, I., Bass, J., ... & English, J. (2017). *Developmental Education: Challenges and Strategies for Reform*. US Department of Education, Office of Planning, Evaluation and Policy Development. Date Retrieved December, 27, 2017.

Kuh, G. D., Cruce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M. (2008). Unmasking the effects of student engagement on first-year college grades and persistence. *The journal of higher education*, 79(5), 540-563.

Lomotey, K. (Ed.). (2009). *Encyclopedia of African American education*. Sage Publications
<http://sk.sagepub.com/reference/africanamericaneducation/n193.xml>

Marx, D. (2018). *Mentoring Latinx Students through Culturally Sustaining Pedagogies at a Predominately White Institution* (Doctoral dissertation, University of Missouri--Kansas City).

Minnesota Report Card. (2018, December 1). Retrieved from Minnesota Department of Education : <https://rc.education.state.mn.us/#mySchool/p--3>

Museus, S. D., & Harris, F. (2010). Success among college students of color: How institutional culture matters. *Managing diversity: (Re) visioning equity on college campuses*, 25-44.

Museus, S. D. (2011). Generating Ethnic Minority Student Success (GEMS): A qualitative analysis of high-performing institutions. *Journal of Diversity in Higher Education*, 4(3), 147.

Museus, S. D., & Quaye, S. J. (2009). Toward an intercultural perspective of racial and ethnic minority college student persistence. *The Review of Higher Education*, 33(1), 67-94.

Official Enrollment Statistics. (2018). Retrieved from Office of Institutional Research:
<https://oir.umn.edu/student/enrollment>

Opp, R. D. (2002). Enhancing program completion rates among two-year college students of color. *Community College Journal of Research & Practice*, 26(2), 147-163.

Parker, T. L. (2007). Ending College Remediation: Consequences for Access and Opportunity. Policy Brief. ASHE/Lumina Fellows Series. Issue 2. Association for the Study of Higher Education.

Pérez, P. A., & Ceja, M. (2010). Building a Latina/o student transfer culture: Best practices and outcomes in transfer to universities. *Journal of Hispanic Higher Education*, 9(1), 6-21.

Persistence and Retention - 2017. (2017, June 12). Retrieved from National Student Clearinghouse Research Center: <https://nscresearchcenter.org/snapshotreport28-first-year-persistence-and-retention/>

Reason, R. D. (2003). Student variables that predict retention: Recent research and new developments. *Naspa Journal*, 40(4), 172-191.

Ross-Gordon, J. M. (2011). Research on adult learners: Supporting the needs of a student population that is no longer nontraditional. *Peer Review*, 13(1), 26.

Saxon, D. P., & Boylan, H. R. (2001). The cost of remedial education in higher education. *Journal of Developmental Education*, 25(2), 2-9.

Sólorzano, D. G., Villalpando, O., & Oseguera, L. (2005). Educational inequities and Latina/o undergraduate students in the United States: A critical race analysis of their educational progress. *Journal of Hispanic Higher Education*, 4(3), 272-294.

Soria, K., & Stebleton, M. (2012). First-generation students' academic engagement and retention. *Teaching in Higher Education*, 673-685.

Strand, K. J. (2013). *Making sure they make it! Best practices for ensuring the academic success of first-generation college students*. Washington, DC.: Council of Independent Colleges.

Strayhorn, T. L. (2011). Bridging the pipeline: Increasing underrepresented students' preparation for college through a summer bridge program. *American Behavioral Scientist*, 55(2), 142-159.

Student Enrollment Data. (2018, December 1). Retrieved from
http://www.ohe.state.mn.us/sPages/student_enroll_data.cfm

Tinto, V. (2006). Research and practice of student retention: What next? *Journal of College Student Retention: Research, Theory & Practice*, 8(1), 1-19.

U.S. Department of Education, Office of Elementary and Secondary Education, Consolidated State Performance Report, 2010-11 through 2015-16. (This table was prepared December 2017.)

U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities" surveys, 1970 and 1980; Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey" (IPEDS-EF:90); and IPEDS Spring 2001 through Spring 2017, Fall Enrollment component. (This table was prepared January 2018.)

Walpole, M., Simmerman, H., Mack, C., Mills, J., Scales, M., & Albano, D. (2008). Bridge to success: Insight into summer bridge program students' college transition. *Journal of the first-year experience & students in transition*, 20(1), 11-30.

Williams-Wyche, S., & Fergus, M. (2018). *Educating for the Future 2017 Annual Report*. Minnesota Office of Higher Education.



2019