North Carolina's Leaky Educational Pipeline & Pathways to 60% Postsecondary Attainment

Executive Summary









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Executive Summary

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This report available at: NCedpipeline.org

About The John M. Belk Endowment

Based in Charlotte, North Carolina, the John M. Belk Endowment is a private family foundation committed to transforming postsecondary educational opportunities to meet North Carolina's evolving workforce needs. Its mission is aligned with the vision of its founder, the late John M. Belk who served four terms of mayor of Charlotte and was CEO of the department store company Belk, Inc. He created the John M. Belk Endowment in 1995 to fund a national merit scholarship program for his beloved alma mater, Davidson College. Now led by Mr. Belk's daughter, MC Belk Pilon, the John M. Belk Endowment staff and board continue to partner with innovative, results-oriented programs in North Carolina to further Mr. Belk's values, legacy, and focus on the value of education as a means to personal fulfillment and community vitality. For more information, please visit http://jmbendowment.org.



About Carolina Demography

Located within the Carolina Population Center at UNC-Chapel Hill, Carolina Demography helps North Carolina's leaders make sense of population-level changes throughout the state. Offering a full array of demographic data and research consulting services, Carolina Demography draws on the Center's global expertise and 50+ years' experience in population research. The work of their outstanding community of scholars informs decision making, planning, and program evaluation for businesses, foundations, government agencies, schools, and not-for-profit organizations who need to better understand their communities and environments. For more information, please visit https://demography.cpc.unc.edu.



Letter from Board Chair John M. Belk Endowment

North Carolina is one of the very last states to set clear goals for educational attainment and develop a comprehensive statewide education plan to realize those goals. Our state's rapidly changing population and evolving economy demand that we rethink our approach to investing in the education of all who live and learn here—and that we act now.

Our conversations about attainment often focus on specific milestones like graduating from high school or obtaining a postsecondary degree, diploma, or certificate, but the end game is really about our state's workforce. The link between educational attainment and North Carolina's economic strength is clear. When given more opportunities to continue their education beyond high school, North Carolinians will be better prepared to compete for the higher-skilled, higher-paying jobs that are projected to grow most rapidly across our state in the coming decades. In return, the presence of a well-trained workforce will be key to attracting and creating more jobs in our state.

When the John M. Belk Endowment partnered with Carolina Demography to commission this report, we knew that less than half of working-age North Carolinians had earned a credential beyond a high school diploma. Still, much of the story remained unclear. If we think about our stages of schooling as sections of a pipeline leading to and through postsecondary education, where along that pipeline are leaks occurring? How do transitions from one section of the pipeline to another—and educational attainment overall—vary by demography and geography? Are we adequately preparing our state's students for college and career success?

Armed with a better understanding of how we've arrived at our current statewide attainment rate of 47 percent, we seek to explore opportunities to increase educational attainment so that more North Carolinians will be equipped with the knowledge and skills needed to succeed in our evolving labor market. One key finding—that to increase attainment, we must address the persistent inequities in educational outcomes between our state's most and least advantaged students—is critical to building North Carolina's infrastructure of opportunity and promoting social and economic mobility among our state's citizens.

Improvements in educational attainment will also depend on our ability to engage with North Carolina's working-age adults, particularly those who have some college experience but no degree or credential, as well as those who hold a high school diploma or equivalent but have not yet enrolled in a postsecondary program. We cannot underestimate the importance of including in our efforts the many North Carolinians who are looking to update their skills or complete additional training to secure employment or advance in the workforce.

As we look to the future and the opportunities that lie ahead, we're encouraged by the remarkable resources at our fingertips, including our early childhood and K-12 systems, community colleges, UNC institutions, private colleges and universities, and countless outstanding nonprofit and community-based organizations that span the state. Together, we must work to ensure that North Carolinians of all ages and backgrounds have the opportunity to further their education, realize their fullest potential, and apply their many talents in our state's workforce.

Thank you for your commitment to this effort. We hope you will join us in this important work.

Keep pounding!

MC Belk Pilon Board Chair John M. Belk Endowment

9th Graders in North Carolina's Public Schools



North Carolina's Leaky Educational Pipeline & Pathways to 60% Postsecondary Attainment

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253,000

more North Carolina residents will need to earn postsecondary degrees or credentials for the state to meet at least 60% attainment in 2030.



Current trends are insufficient to meet future demands.

Tomorrow's jobs increasingly demand a highly trained workforce with some postsecondary education and training. In North Carolina, the share of the population aged 25-64 with a postsecondary degree or nondegree credential increased from 40% in 2006 to just over 47% in 2016, a gain of seven percentage points in ten years. Much of this increase was due to the net in-migration of highly educated workers to North Carolina from other states and countries.

Based on prior trends, the share of North Carolina adults with a postsecondary credential is projected to continue to increase, rising to 53% by 2025 and 56% by 2030. The state will need an additional 412,000 individuals with postsecondary degrees or nondegree credentials to reach 60% attainment in 2025 and is projected to need 253,000 more in 2030. If we are to meet the demands of tomorrow's job markets, we cannot rely solely on attracting highly educated individuals from other states and countries and must strengthen our ability to grow our own talent in-state.

16% of NC public high school 9th graders complete the in-state, public postsecondary pipeline on time.

According to the most recent data, one in six North Carolina 9th graders successfully graduates from high school on time <u>and</u> enrolls at a North Carolina community college (NCCC) or University of North Carolina (UNC) system school in the following fall <u>and</u> completes an associate or bachelor's degree within three or six years, respectively. There are large differences in the predicted likelihood of public school pipeline completion across demographic groups:

- Female students are more likely to complete the postsecondary pipeline than male students (19% versus 17%, respectively).
- Asian students (30%) are nearly twice as likely to complete the public postsecondary pipeline on time than the state average of 16%.
- Black (9%), Hispanic (9%), and American Indian (7%) students have predicted on-time pipeline completion rates lower than the state average while White (19%) students have predicted completion rates higher than the average.

Transition to college is the largest loss point in the postsecondary pipeline, and the size of this loss is growing.

For all students, the transition between high school and postsecondary program enrollment is the largest loss point in the postsecondary pipeline. While North Carolina is producing more high school graduates than ever before, fewer of these graduates are immediately enrolling at an NCCC or UNC system school in the fall, though some of these students are enrolling at private schools and out-of-state schools and others may be delaying enrollment. Disparities in the immediate collegegoing rate are even larger than gaps in the high school graduation rates, highlighting the need for an increased focus on transition to postsecondary education.

The size of the opportunity is much larger than the need.

In 2016, North Carolina needed an additional 672,000 adults with a quality postsecondary credential to reach 60% attainment. This gap is projected to shrink to 412,000 by 2025 and to 253,000 by 2030.

- There are currently 905,000 adults aged 25-64 with some postsecondary experience but no degree.
- Between 2014 and 2026, nearly 1.6 million students will enter the state's public K-12 school system as 9th graders. Under current rates, more than 213,000 are predicted to drop out or delay high school graduation.
- Between 2018 and 2029, nearly 1.3 million students will graduate from the state's public K-12 school system. Under current rates, just 247,400 will complete the in-state, public postsecondary pipeline on time. Among the remaining students:
 - > 227,600 will graduate with no intention of pursuing postsecondary education.
 - > 519,000 will graduate with postsecondary intentions but will not immediately enroll at an NCCC or UNC system school.
 - > 283,000 will immediately enroll at an NCCC or UNC system school but will not graduate on time.



Many North Carolina children would be first-generation college students.

Half of North Carolina's children under age 18 currently live in a household with a parent who does not have a postsecondary degree (associate or higher). These students would be first-generation degree holders. The majority of North Carolina's Hispanic (79%), American Indian (64%), and Black (62%) children would be first-generation college students.



More students are completing high school on time.

Among North Carolina 9th graders who entered high school in 2002, just 68% successfully completed high school within four years and graduated by 2006. Since then, the state's on-time high school graduation rate has steadily increased, rising more than 18 percentage points to reach 87% in 2017. As of 2016, North Carolina's on-time high school graduation rate was above the national average by two percentage points and was the 22nd highest rate among the states.





Gaps in on-time high school graduation rates persist in spite of large improvements for minority students.

In 2017, Asian students were the most likely to graduate from high school within four years (94%), followed by White (89%), Black (84%), American Indian (84%), and Hispanic (81%) students. Each group has seen significant increases in the on-time high school graduation rate since 2006, with the largest percentage point (pp) increases occurring among American Indian (33 pp), Hispanic (28 pp), and Black (23 pp) students.

9th graders graduating high school within four years (2017)

Significant improvements have been made, but there is still room for growth.

Despite improvements in high school graduation rates, more than one in every eight 9th graders—13% do not complete high school on time. In 2017, this was 15,600 students who dropped out or took longer than four years to receive a diploma.

While more students are graduating from high school, many graduates may be leaving high school without the basic skills necessary to succeed in college or a career. In 2017, nearly half of North Carolina high school graduates met no college readiness benchmarks on the ACT and 27% of Career and Technical Education (CTE) graduates did not achieve a career-ready score on the ACT WorkKeys exam.

Improving graduation rates alone will not increase postsecondary pipeline completion without an increased focus on transition to postsecondary education.

Improvements in the on-time high school graduation rates over the decade were largest for American Indian, Hispanic, and Black students. Compared to their Asian and White peers, these students are more likely to be first-generation college students and may need more guidance navigating the transition from high school graduation to postsecondary entry and completion.



of North Carolina's 2017 public high school graduates met all four college readiness bench

of North Carolina's college readiness benchmarks on the ACT exam.

College readiness is critical to first-year college persistence.

A recent study on college persistence found that 75% of first-year dropouts demonstrated limited college readiness across multiple measures—including standardized test performance—highlighting the crucial role of adequate academic preparedness prior to postsecondary enrollment.



The ACT is a college admissions exam administered to all NC public high school students in 11th grade. The ACT measures proficiency in four subject areas: English, Mathematics, Reading, and Science. Each area has a college readiness benchmark score that is associated with an increased likelihood of achieving a C or higher in related introductory college courses. These benchmarks were developed based on the actual performance of first-year college students.

Eighteen percent of graduates met all four college readiness benchmarks on the ACT exam; nearly half met none.

The share of graduates meeting all four benchmarks on the ACT exam was 18% in 2017, a one percentage point improvement from 2013 (17%). More than twice as many students—47%—met none of the ACT benchmarks, a slight improvement from 49% in 2013.

Gaps between average ACT scores and readiness benchmarks closed in all subjects except Mathematics, though large disparities remain.

NC public high school graduates' average ACT subject scores rose from 2013 to 2017 in all subjects except Mathematics. However, gaps persist between the state average scores and their respective benchmarks. In English, the 2017 average score nearly met the subject benchmark (gap of 0.2 points). This was followed by Reading (gap of 2.4 points), Mathematics (gap of 2.7 points), Science (gap of 3.7 points), and STEM (gap of 6.4 points). In Mathematics, the readiness gap grew from 2.4 points in 2013 to 2.7 points in 2017.



Graduates meeting all four benchmarks on the ACT



Average ACT scores vs. benchmark

Groups with largest improvements on ACT were already above average.

At 38%, Asian graduates were the most likely to meet all four benchmarks on the ACT exam in 2017. This was followed by White (27%), Hispanic (9%), American Indian (6%), and Black (4%) graduates. These rates were higher for all groups compared to 2013, with Asian graduates experiencing the largest increase—eight percentage points—followed by White graduates (four percentage point gain). As a result, the gap between the highestperforming and the lowest-performing racial/ethnic group widened from 27 percentage points in 2013 to 34 percentage points in 2017.

As a group, male and female students performed similary to all students, meeting 19% and 18% of all benchmarks, respectively, in 2017.



Many NC students are not academically ready for the military.

From 2004 to 2009, nearly one in four (23%) North Carolina high school graduates who applied to the Army were turned away due to an ineligible score on the Armed Services Vocational Aptitude Battery exam. Fifteen percent of White applicants, 21% of Hispanic applicants, and 36% of Black applicants were ineligible due to low test scores.



The emerging employment landscape requires individuals to have a credential beyond a high school diploma.

As the job market becomes increasingly complex, skilled-service industries, such as health services or hospitality, are expected to provide the highest-paying jobs for individuals without a four-year degree. Between 1991 and 2015, North Carolina lost 6,000 well-paying, blue-collar jobs while adding 196,000 skilled-service jobs. Successful employment in these new jobs typically requires some college or a vocational credential. 3,000+

employers in North Carolina recognize the National Career Readiness Certificate as a qualified credential.

What is ACT WorkKeys?

The ACT WorkKeys exam is a set of job skills assessments administered to NC students who are on track to complete a Career and Technical Education (CTE) program by high school graduation. By taking certain WorkKeys exams, students are eligible to obtain the National Career Readiness Certificate (NCRC). NCRC achievement levels are Bronze, Silver, Gold, and Platinum. Test takers are generally understood to be "career-ready" if they earn a Silver or better. This certificate is currently recognized by more than 3,000 employers in the state and over 20,000 employers nationwide.



A rising share of Career and Technical Education (CTE) graduates are earning career-ready scores.

Nearly three-fourths (73%) of CTE completers—39,600 students—in the 2017 graduating class earned a Silver or better score on the WorkKeys exam. This share has risen six percentage points since 2013 (67%). Among the 2017 graduates, 83% of Asian CTE graduates earned a Silver or better, followed by White graduates (81%), Hispanic graduates (72%), American Indian graduates (65%), and Black graduates (57%). While the disparity between the highest- and lowest-performing groups was 24 percentage points, over half of students in all racial/ethnic groups were career-ready based on ACT WorkKeys performance.

CTE graduates earning Silver or better score on ACT WorkKeys exam (2017)

CTE completers are earning more industry-recognized credentials than ever.

Credentials earned by CTE completers in the state have steadily grown since 2011. The NC State Board of Education proposed a target of 144,700 credentials to be earned by CTE completers in the 2016-17 school year, which was ultimately surpassed by over 15,000 (160,224 credentials in total). Over four in five (81%) students that were enrolled in an eligible CTE course earned an industry-recognized credential in 2017. 81% of CTE completers earned an industry-recognized credential from an eligible CTE course.



"Summer melt" is a challenge for college-intending graduates.

Many high school graduates with postsecondary intentions do not matriculate in the fall, a process known as "summer melt." Summer melt most often affects first-generation students, lower-income students, and students with intentions to enroll at a community college. Research finds that small-scale interventions, such as summertime college counseling, are effective at reducing summer melt and can significantly increase first-year enrollment rates.



Fewer high school graduates intend to pursue any postsecondary education.

Intentions among NC public high school graduates to enroll in any postsecondary education peaked at 86% in 2010. Since then, the share of graduates with postsecondary intentions has steadily declined. In 2017, 83% of high school graduates reported postsecondary intentions, three percentage points lower than the 2010 peak. Among NC's college-intending graduates, 46% intended to enroll at a four-year institution in 2017 and 37% intended to enroll at a two-year institution.

The Class of 2017 had the largest share of graduates intending to enter the workforce since 2006.

In 2017, 13% of NC public high school graduates intended to directly enter the workforce after graduation an 11-year high. In 2006, 12% of graduates intended to work; this share gradually declined throughout the Great Recession to a low of 9% in 2009 and 2010. As job opportunities for high school graduates have increased following the economic recovery, so has the percentage of graduates intending to forgo immediate postsecondary education.



Large racial and ethnic disparities exist in post-graduation intentions.

In 2017, Asian graduates were most likely to report postsecondary intentions (92%), followed by White (85%), Black (81%), Hispanic (76%), and American Indian (72%) graduates. This is a gap of 20 percentage points from the highest-intending group to the lowest-intending group.

Among college-intending graduates of any racial/ ethnic group, Hispanic students were the only group where the majority with postsecondary plans selected two-year institutions as their intended place of enrollment.

HS graduates' post-graduation intentions (2017)

Female students are more likely to report postsecondary intent.

Since 2006, female graduates have been more likely to report postsecondary intentions than male graduates, and the gap has widened over time. In 2006, 80% of male graduates intended to enroll in postsecondary education compared to 90% of female graduates, a gap of 10 percentage points. By 2017, the gap had widened to 13 percentage points: 76% of male graduates intended to enroll versus 89% of female graduates.



Enrollment decline is likely affected by broader economic conditions.

During economic contractions, such as the Great Recession, individuals may be more likely to enroll in postsecondary programs due to a combination of fewer opportunities and increased competition for a limited pool of jobs. As the economy improves, they may choose to enter immediate employment rather than enroll in postsecondary education.



Immediate college-going rates are down from a 2008 peak.

North Carolina high school graduates have collegegoing rates comparable to the national average. Immediate college-going rates declined from their 2008 peak for both North Carolina and the nation, though these declines were more pronounced in North Carolina. In 2008, the nationwide rate was 64%, three percentage points higher than the rate in 2014 (61%). North Carolina's rate peaked even higher: 66% of high school graduates immediately enrolled in postsecondary programs in 2008, four percentage points higher than in 2014 (62%).





HS graduates with immediate enrollment at NCCC or UNC (2017)

More students are graduating from high school, but fewer are immediately enrolling in college.

North Carolina students are completing high school at a higher rate than ever before, but this has not translated into large increases in the number of immediate college enrollments. The number of students immediately enrolling at an NCCC or UNC system school did not surpass the 2009 peak (42,535) until 2015 (42,649), despite the total number of high school graduates increasing by 12,130 over this time. This larger pool of on-time graduates may include more students who lack interest in postsecondary education or have social or demographic characteristics associated with reduced likelihood of immediate enrollment (e.g., first-generation students).

Racial and ethnic disparities in immediate college enrollment persist.

In 2017, over half (57%) of Asian high school graduates immediately enrolled within the NCCC or UNC system, the highest rate of any group. White (44%) and American Indian (44%) graduates enrolled at rates slightly higher than the state average (43%), while Black (37%) and Hispanic (36%) graduates were the least likely to immediately enroll at an NCCC or UNC system school in the fall. This represents a gap of 21 percentage points between the highest and lowest enrollment groups.

The immediate enrollment gap between male and female students is widening.

There is a large and growing gap between male and female students in immediate college enrollment rates. In 2007, 54% of female high school graduates immediately transitioned to an NCCC or UNC system school compared to 46% of male graduates, a gap of eight percentage points. In 2017, the immediate college-going rate for female graduates was 10 percentage points higher than the rate for male graduates: 48% versus 38%.



74%

of North Carolina's public high school graduates who enrolled at an NCCC or UNC institution for Fall 2016 returned for Fall 2017.

National research finds no single reason why students leave postsecondary programs without completing.

Research from the National Center for Education Statistics shows that 16% of students who began any postsecondary education in 2003-04 left school within one year without completing a program. When asked why they left, students provided multiple reasons and there was no single reason for leaving that dominated. Personal reasons were the most commonly cited (53%), followed by financial reasons (31%), family responsibilities (21%), lack of satisfaction (17%), and academic problems (13%).



One in four first-time undergraduates leaves the NCCC or UNC system within one year.

Overall, 26% of North Carolina's high school graduates who immediately enrolled at an NCCC or UNC system school in Fall 2016 did not return for Fall 2017. This represents nearly 11,300 students who began college in the fall but did not return for their second year. Forty-five percent of students who left their institution left after fall semester and did not return for spring; over half (55%) were enrolled for the full year at their starting institution.



Retention rates vary by system.

Between 2007 and 2016, the UNC system's first-year retention rate increased by three percentage points, rising from 85% to 88%. In contrast, the NCCC system's first-year retention rate declined by one percentage point from 57% to 56%.

One of the reasons for differing retention rates at four-year and two-year institutions are institutional differences in the share of part-time versus full-time students.

Large racial and ethnic disparities exist in first-year retention rates.

Retention rates varied across racial/ethnic groups in 2017. Eighty-six percent of Asian first-year enrollees returned for their second year. White (76%) students were the only other group with first-year retention rates above the state average of 74%. American Indian (64%), Black (69%), and Hispanic (72%) students were the least likely to return. Put another way, just 14% of Asian first-year students did not re-enroll for a second year compared to 36% of American Indian first-year students, meaning American Indian students were two and a half times more likely to leave an NCCC or UNC system school within one year than their Asian counterparts.



Asian 86%

Overall first-year retention rates (2017)

Male students are more likely to leave than female students.

For almost all racial/ethnic groups, female students who enrolled at a UNC system school in Fall 2016 were more likely than their male counterparts to return in Fall 2017. The first-year retention rate for female students in the UNC system was 89% compared to 86% for male students, a three percentage point gap. A similar gap existed among students who began at an NCCC system school in Fall 2016: female students had a first-year retention rate of 57% compared to 54% among male students. These patterns are consistent with broader national research that finds male students are more likely to leave postsecondary programs than female students after the first year.

19.4%

of North Carolina's high school graduates who immediately enrolled at an NC community college in Fall 2014 completed a degree within three years.



Differences in student populations have strong influence on completion outcomes across our state's public postsecondary institutions.

Traditional university performance measures are based on first-time, full-time students who graduate from their starting institution. Our state's community colleges are open-door institutions, meaning that they serve students of all academic backgrounds and levels of college readiness. Compared to students enrolled at four-year institutions, community college students are more likely to enroll part time, more likely to be non-first-time students, and may be more likely to transfer to a different postsecondary institution.

ON-TIME GRADUATION NC COMMUNITY COLLEGES

Students are classified as graduating on time if they complete their program within 150% of normal time, meaning three years for an associate degree at a community college.

Many NCCC students who complete their first year do not graduate from an NC community college within three years.

Among the Fall 2014 cohort of college-going high school graduates who immediately enrolled in the North Carolina community college system, 55% returned for their second year, but just 19% completed a degree or nondegree credential from a North Carolina community college within three years. This represents a loss of 36% of students between the fall of their second year and timely degree completion.

Limited data on student transfers cloud our understanding of completion outcomes for high school graduates who immediately enroll in an NC community college.

Because community college students may be more likely to transfer to a different postsecondary institution than their peers enrolled in four-year institutions, on-time completion rates for the state's community colleges could increase substantially if this metric were able to account for transfers to colleges and universities outside of the North Carolina community college system.

Nationally, just 20% of community college students graduated from their college of initial enrollment within three years; an additional seven percent graduated within eight years and another 33% transferred to another institution. Overall, 60% of community college students across the nation graduated or transferred within eight years. Future research on community college completion outcomes in North Carolina could explore longer time horizons and expand our understanding of student transfer outcomes by tracking students in the National Student Clearinghouse (NSC).

All racial and ethnic groups have seen improvements in three-year graduation rates.

Statewide, on-time graduation rates at North Carolina community colleges rose from 14.4% to 19.4% between 2007 and 2014, an increase of five percentage points. In real terms, this means 900 more students in the Fall 2014 cohort graduated with a degree or nondegree credential within three years than would have under 2007 graduation rates. Hispanic students saw the largest increase in on-time graduation among all racial and ethnic groups (7.6 percentage points, from 15.8% to 23.4%).



Three-year graduation rates



Six-year graduation rates at UNC system schools are higher than the national average.

Nationally, the six-year graduation rate for all first-time, full-time students who enrolled at a four-year institution in 2010 was 60%, ranging from 26% at for-profit institutions to 59% at public institutions and 66% at nonprofit institutions. The six-year graduation rate for all first-time, full-time students at UNC—a group that includes all first-time students, including high school graduates from private high schools and out-of-state and those who delayed enrollment in postsecondary—was 64%. The UNC on-time graduation rate was five percentage points higher than the national average for four-year public institutions, although there was significant variation across institutions.

ON-TIME GRADUATION UNC SYSTEM

Students are classified as graduating on time if they complete their program within 150% of normal time, meaning six years for a bachelor's degree at a four-year institution.

Many UNC students complete their first year but do not graduate within six years.

For students who return for the second year of school, each additional semester or year to degree completion represents another potential loss point. While loss in the first year represents the most vulnerable point of a student's career, first-year retention is not a guarantee of timely degree completion. In 2011, 86% of first-year UNC students returned for their second year, but just 69% completed a bachelor's degree within six years. This represents 17% of students who completed more than one year at UNC but did not graduate with a degree by 2017.

Six-year graduation rates improved for all racial and ethnic groups except American Indian students.

Overall, six-year graduation rates rose from 66% in 2007 to 69% in 2011, an increase of three percentage points. In real terms, this increase in graduation rates meant 725 more students from the Fall 2011 cohort graduated within six years than they would have under the 2007 rates. Graduation rates for Asian and White students increased by three percentage points over this time period, and increases were even larger for Black and Hispanic students (five and four percentage points respectively). The only group to see declining graduation rates was American Indian students. On-time graduation rates for American Indian students at UNC declined eight percentage points between 2007 and 2011.

Across all racial and ethnic groups, female students are more likely to graduate on time than their male counterparts.

Seventy-two percent of female students who enrolled in the UNC system in Fall 2011 completed a degree within six years compared to 64% of male students, a difference of eight percentage points. The largest gaps between male and female students were among American Indian, Black, and Hispanic students.



Six-year graduation rates

of North Carolina's students will be lost at some transition

will be lost at some transition point in the pipeline between 2018 and 2029.

Transition points are a time of vulnerability.

More North Carolina 9th graders are graduating from high school on time and most intend to continue their education. Pursuing more education, however, brings more transitions. Students must be college-ready. They must identify the appropriate postsecondary programs, apply, gain acceptance, and enroll. Once enrolled, they must persist until degree or credential completion. Each of these transition points represents an opportunity for intervention but also an opportunity for loss from the postsecondary pipeline.

1/10/1000

ninth graders will not complete high school on time.



Total projected losses by key transition point between 2018 and 2029:

741,200 students will graduate on time but will not immediately transition to an NCCC or UNC institution. Some of these students will transition to a private or out-of-state institution and others will transition later, but the data necessary to fully quantify and track this impact is not readily available.



213,30

students will immediately enroll in an NCCC or UNC institution in the fall after graduation but will not graduate on time:

61,400 will leave after one semester.

74.200 will return in the spring but will not return for their second year.

139,200 will return for the second year but will not graduate with a degree on time.

K-12 students represent the largest potential opportunity to increase educational attainment.

Students currently in the state's K-12 system represent the largest potential opportunity for North Carolina to move towards reaching 60% postsecondary attainment among adults ages 25-64. Improving the educational outcomes for disadvantaged students, especially those from Black, Hispanic, and American Indian backgrounds, is critical to building the state's infrastructure of opportunity, promoting social mobility, and maintaining North Carolina's economic growth.

Black, Hispanic, and American Indian students are a growing share of the K-12 population. Between 2012 and 2017, this group of students grew twice as quickly as the student population overall, representing 44% of North Carolina public school enrollments in 2017-18. Many of these children would be first-generation college students and may not be fully aware of the range of options available to them after high school. Consequently, they may need additional assistance preparing for and successfully navigating their postsecondary educational options. Failure to improve outcomes and educational attainment for these students will serve to exacerbate existing inequalities and ensure that North Carolina's path to future attainment growth continues to rely on the in-migration of highly educated individuals from other states and countries.

905,000

of North Carolina's workingage adults (25-64) had some college experience but no degree in 2016.



Reaching a specific level of educational attainment is a process.

Educational attainment is the end of a decades-long process. It is the cumulative sum of educational experiences and exposures that begin at birth and continue well into adulthood. While North Carolina's needs and challenges are numerous and large, targeted efforts can change the ultimate outcomes.

MOVING NORTH CAROLINA TO 60% AND BEYOND

Increasingly, well-paying jobs require education and training beyond high school. Building pathways to educational success is vital for the economic well-being of North Carolina and its residents.

47% of NC adults have a postsecondary degree or credential.

As of 2016, less than half of North Carolina's 5.3 million working-age adults—47% or 2.5 million—had completed a postsecondary degree or nondegree credential. Specifically:

- 42% held an associate degree or higher:
 - > 10% had an associate degree
 - > 21% had a bachelor's degree
 - > 11% had a master's degree or higher



Educational attainment of adults 25-64 (2016)

• 5% did not have a postsecondary degree but had completed a nondegree credential.

Forty-one percent of adults in the state reported having a high school diploma, GED, or some college experience but no postsecondary credential or degree in 2016. Identifying these adults and successfully recruiting and assisting them to degree completion will be necessary to achieve any statewide attainment goal.



Despite projected improvements in attainment for all groups, large disparities will remain.

Between 2016 and 2030, the share of North Carolina adults with a postsecondary degree or nondegree credential is projected to increase from 47% to 56%. Three demographic groups are projected to exceed 60% postsecondary attainment by 2030: Asian (74%), White (63%), and female (61%) adults.

While educational attainment is projected to increase for all North Carolina residents, significant disparities will remain. If current trends continue, Hispanic (32%), American Indian (34%), and Black (44%) adults are projected to fall further below the state average in overall attainment by 2030.

Adults (25-64) with postsecondary degree or credential

REFERENCES

High School Graduation

[page & footer] Carolina Demography analysis of 2016 American Community Survey data downloaded from IPUMS-USA.

North Carolina Department of Public Instruction. 2017. Longitudinal 4-year and 5-year Cohort Graduation Rates through 2017. Accessed at http://www.ncpublicschools.org/ accountability/reporting/cohortgradrate.

North Carolina Department of Public Instruction. 2017. State, District, and School Level Drilldown Performance Data. Accessed at http://www.ncpublicschools.org/ accountability/reporting/.

College Readiness

[page 10 footer] DeAngelo, Linda, and Ray Franke. 2016. "Social Mobility and Reproduction for Whom? College Readiness and First-Year Retention." *American Educational Research Journal*, 53 (6): 1588-1625.

North Carolina Department of Public Instruction. 2017. State, District, and School Level Drilldown Performance Data. Accessed at http://www.ncpublicschools.org/ accountability/reporting/.

ACT, Inc.'s College Readiness Benchmarks were developed based on the actual performance of first-year college students. Through its Course Placement Service, the ACT has collected test score and course grade data on over 90,000 students across 98 two- and four-year institutions. These benchmark outcomes reflect the typical performance of a first-year college student.

Career Readiness

[page 12 footer] Theokas, Christina. 2010. Shut Out of the Military: Today's High School Education Doesn't Mean You're Ready for Today's Army. Washington, DC: The Education Trust.

Carnevale, Anthony P., Jeff Strohl, and Neil Ridley. 2017. Good Jobs That Pay Without a BA: A State-by-State Analysis. Washington, DC: Georgetown University Center on Education and the Workforce.

North Carolina Department of Public Instruction. 2017. Report to the North Carolina General Assembly: 2016-17 Career and Technical Education Industry Certifications and Credentials Program (SB 257 (SL 2017-57)).

North Carolina Department of Public Instruction. 2017. State, District, and School Level Drilldown Performance Data. Accessed at http://www.ncpublicschools.org/ accountability/reporting/.

ACT. 2018. ACT Work Ready Communities: North Carolina. Accessed at https://www.workreadycommunities.org/NC.

Postsecondary Intentions

[page 14 footer] Castleman, Benjamin L. and Lindsay C. Page. 2014. "A Trickle or a Torrent? Understanding the Extent of Summer "Melt" Among College-Intending High School Graduates." *Social Science Quarterly*. 95(1): 202-20. Castleman, Benjamin L., Lindsay C. Page, and Korynn Schooley. 2014. "The Forgotten Summer: Does the Offer of College Counseling After High School Mitigate Summer Melt Among College-Intending, Low-Income High School Graduates?" *Journal of Policy Analysis and Management*. 33(2): 320-44.

North Carolina Department of Public Instruction. 2017. Table 12.1 High School Graduates Intentions (including Summer School). Accessed at http://apps.schools.nc.gov/ords/f?p=145:1.

Transition to College

Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, U.S. Department of Education.

The North Carolina Community College System. 2018. Special tabulation.

The University of North Carolina System Office. 2018. Special tabulation.

First-Year Retention

[page 18 footer] Ross, Terris, Grace Kena, Amy Rathbun, Angelina KewalRamani, Jijun Zhang, Paul Kristapovich, and Eileen Manning. 2012. Higher Education: Gaps in Access and Persistence Study. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

The North Carolina Community College System. 2018. Special tabulation.

The University of North Carolina System Office. 2018. Special tabulation.

On-Time Graduation

Carey, Kevin. October 31, 2017. "The Revised Data Shows Community Colleges Have Been Underappreciated." *The New York Times*. Accessed at https://www.nytimes.com/2017/10/31/ upshot/revised-data-shows-community-colleges-have-beenunderappreciated.html.

The North Carolina Community College System. 2018. Special tabulation.

The University of North Carolina System Office. 2018. Special tabulation.

Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, U.S. Department of Education.

The Leaky Pipeline

Projections developed by Carolina Demography.

Moving North Carolina to 60% and Beyond

2016 American Community Survey, IPUMS-USA.

The estimate of postsecondary nondegree credential attainment was developed by NORC at the University of Chicago on behalf of the Lumina Foundation.

Projections developed by Carolina Demography.





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