



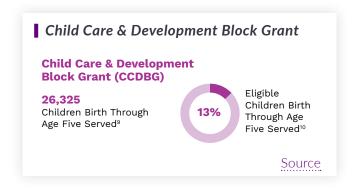
# NORTH CAROLINA'S EARLY CARE AND LEARNING IMPERATIVE

According to a recent report by the Century Foundation, North Carolina stands to see more than 150,000 young children lose child care as more than 1,700 child care programs close as pandemic-related federal funding streams come to an end. The funding cliff is real. Funds received by North Carolina through the American Rescue Plan Act (ARPA) targeted at addressing pandemic upheavals were applied in part to stabilize the child care sector from 2021. As the child care cliff nears - when ARPA funding runs out in September 2024 - it is time to take stock of some critical early learning indicators.

On the demand side, an estimated <u>64 percent</u> of children have at least one parent in the workforce. Even with a pandemic boost from federal funds, only <u>13 percent</u> of families eligible for child care subsidies through the Child Care Development Block Grant are covered by the program. This number is likely to fall as the Block Grant shrinks after September, unless there is an emergency injection of state funds to keep it afloat. Since child care already adds up to <u>10 percent</u> of a dual income household and <u>33</u> percent of a single parent household's income, few families can afford to pay more for care past the cliff.

On the supply side, only about 20,000 children are enrolled in Early Head Start and Head Start. NC Three School (or Preschool for three-year-olds) is a pilot program running in three NC counties - those being Wake, Lenoir and Green - and during the 2022-23 school year, 53 percent of North Carolina's eligible 4-year-olds from lower income families were enrolled in the NC Pre-K program. Still, data show that 44 percent of families live in a child care desert with little or no access to infant and toddler child care, restricting parental participation in the workforce.

The imbalance between the number of children needing care and the supply of child care leads to a widening child care gap. If child care is scarce and expensive, parents are forced to leave the workforce and provide consistent daytime care for young children. The result is that North Carolina's economy loses an estimated \$3.5 billion annually due to the lack of affordable quality infant toddler care.

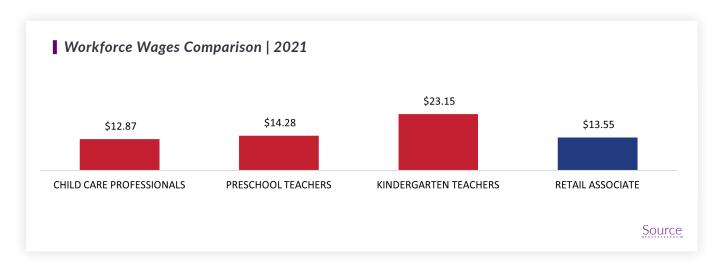


### **Policy Considerations**

- How can policymakers ensure that the child care subsidy rates more closely reflect the cost of quality care instead of the current market rate, as well as increase the percentage of families eligible for the subsidy?
- How can the state incentivize Family Child Care (FCC) providers and center-based care to offer critical services in child care deserts?
- To improve quality of existing and new supply, what funding and technical assistance strategies can policymakers establish to support child care centers and FCC providers to participate and succeed in the state Quality Rating and Improvement System?

## EARLY CARE AND LEARNING WORKFORCE

Any discussion of the funding cliff and the childcare gap is incomplete without highlighting the challenges faced by the child care workforce. This underpaid and overworked workforce is especially susceptible to chronic burnout, exacerbating staffing issues in the sector, and disincentivizing child care center owners from increasing available slots for children in their centers.



Child care is known to be a low paying profession - the median hourly wage for an early childhood educator in North Carolina in May 2022 was just \$13.00 per hour (despite the median hourly wage across all occupations being \$20.10). Most child care centers are also unable to provide comprehensive health benefits to their staff. Low compensation and lack of benefits disincentivize passionate workers from coming into this sector, and the intensive workload and low returns lead to burnout among existing workers. It is hardly surprising that N.C., like many states, experiences a widening child care gap, not in small part due to a declining child care workforce.

The early childhood workforce encompasses a wide variety of roles including child care professionals, Head Start teachers, home visitors, and pre-K teachers. For many of these occupations, wages earned do not meet the state's living wage, and many earn at or below the federal poverty level.

Across the country, <u>states</u> are looking at providing tax credits to companies and local businesses which invest in expanding and funding child care. States are also looking at ways to offer health care benefits to early childhood educators through Medicaid and child care subsidies regardless of family income. To get young people excited about child care careers, apprenticeships starting at the high school level and into community college are growing in early childhood education.

### **Policy Considerations**

- How can local communities and businesses be incentivized to share in the cost of increasing high quality available child care?
- How can early childhood educators be encouraged and supported in opening FCC homes?
- How can the state find ways to provide benefits to early childhood educators such as health care and child care subsidies?

#### TRENDS IN LEARNING AND RESEARCH IN NORTH CAROLINA

Like many states, North Carolina was not immune to learning loss as a result of the pandemic. Research from the Education Recovery Scorecard found between 2019 and 2022, students in North Carolina lost approximately 0.68 grade equivalents in math and 0.46 grade equivalents in reading. This is equivalent to students missing roughly two-thirds of a typical year's learning in math and nearly half a year in reading during this period.

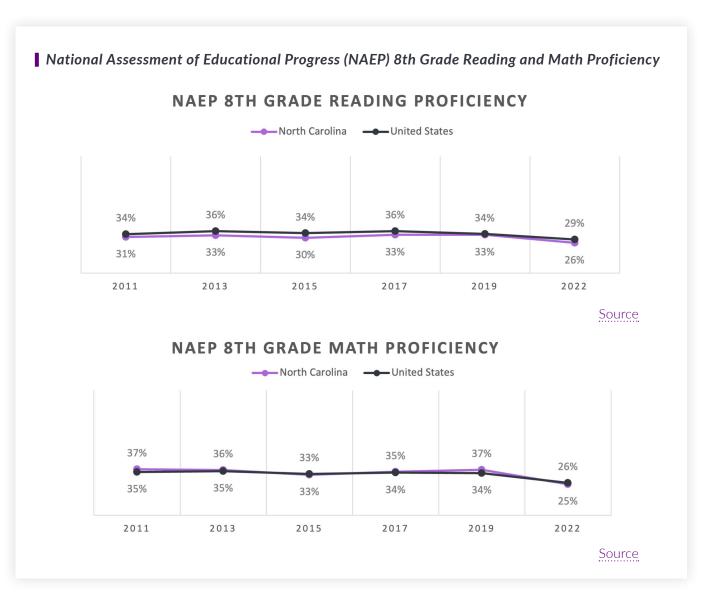
The decline in math achievement between 2019 and 2022 varied significantly across districts, even among those with similar poverty levels. As an example, students in Winston-Salem/Forsyth County schools faced more severe losses, exceeding

#### 2024 HOLSHOUSER LEGISLATORS RETREAT

a full grade equivalent in math achievement, whereas students in Durham Public Schools lost approximately 40 percent of a grade equivalent. The graphs below show North Carolina's eighth-grade Reading and Math proficiency compared to the national average.

As part of the passage of <u>Senate Bill 105</u> North Carolina paved the way for a collaboration between the North Carolina Department of Public Instruction (NCDPI) and SAS Institute Inc. (SAS EVAAS) to explore the effects of the pandemic on the K-12 public school system. Created in 2021, the Office of Learning Recovery and Acceleration (OLR) aims to support the recovery of instructional time lost due

to disrupted educational experiences throughout the state. OLR's 2023 year-over-year state analysis report found that two out of 16 standardized assessments – specifically, End-of-Grade (EOG) Reading Grade 3 and End-of-Course (EOC) English II – have already surpassed the recovery thresholds, indicating notable progress. On average, the data indicated that North Carolina schools are exhibiting signs of academic recovery across almost every subject, with particularly significant improvements noted on the third grade Reading EOG. Additionally, noteworthy gains have been observed in reading and math for grades 3-5, as well as in science for grade 5.



### Instructional Practices to Combat Learning Loss

#### **High Dosage Tutoring**

High-dosage tutoring refers to intensive, personalized instruction, often involving one-on-one sessions or small group settings, occurring at least three times a week or totaling around 50 hours over a semester. An exemplary model is the Guilford County Schools (GCS) high-dosage tutoring initiative. This program collaborates with local universities and high schools, pairing their students with peers who have faced significant learning setbacks due to the impact of COVID-19.

While comprehensive assessments are ongoing to gauge the program's effectiveness, GCS has reported promising initial findings. <u>Preliminary data</u> suggest improvements in learning outcomes across various student demographics and schools.

In 2020, North Carolina established the NC. Education Corps to provide support to districts through tutoring services. During the 2021-2022 academic year, 234 corps members across 23 districts served as K-3 literacy tutors while receiving coaching support. Initially the program, received CARES Act funding and philanthropic support, but the Ed Corps operates as a 501(c)(3) organization with funding through the Elementary and Secondary School Emergency Relief as well as funding from the legislature.

### **Expanded Learning**

Programs or interventions that increase the amount of instruction and learning students participate in, such as after-school, summer, or in-school programs, can be beneficial for combatting learning loss if effectively implemented. While expanded learning time interventions can take a variety of forms, the following strategies have seen up to eight months of learning recovery.

■ Acceleration Camps: Students receive full-day interventions for a length of time determined by each Local Education Agency.

- Double Blocking: Students receive an extra period each day for additional subject matter remediation.
- Mandatory Summer School: Students must attend mandatory summer instruction to be promoted to the next grade level.

# Targeted Subject Matter Instruction

Benjamin Franklin Elementary in Meriden,
Connecticut was able to <u>maintain</u> their pre-pandemic math scores by adding class time for targeted instruction throughout the day. Students in second and third grade received an hour of math instruction per day, while students in fourth and fifth grade received 90 minutes with the additional support of focused tutoring for students who had fallen behind. Benjamin Franklin Elementary's demographics closely align with the national average, with three in four students qualifying for free or reduced-price lunch and a majority identifying as Black, Hispanic, or multiracial, supporting this as a promising practice for learning recovery.

### **Policy Considerations**

- What measures or incentives could encourage a culture of collaboration among schools, educators, and community stakeholders to share successful innovative instructional practices?
- How can policymakers establish robust evaluation frameworks to assess the effectiveness of instructional practices, such as high-dosage tutoring and targeted subject matter instruction, in addressing learning loss and promoting academic recovery?
- O How can policymakers implement strategies to ensure strong student attendance and engagement in programs offering additional learning time?

## ARTIFICIAL INTELLIGENCE IN K-12 EDUCATION

Artificial Intelligence (AI) is a branch of computer science that uses data such as numbers, words, images, and internet traffic to train smart machines to make decisions and perform specific tasks. In K-12 education, AI may offer transformative solutions to equip students with future-ready skills by enabling educators to tailor learning experiences to individual student needs, providing real-time feedback, and automating administrative tasks. However, classroom integration of AI must address ethical considerations, equity in access, and the development of digital literacy skills for both students and teachers.

# Current State of Artificial Intelligence in K-12 Education

Al's current application in classrooms ranges from Al-powered educational games to adaptive learning systems and analytics that can predict student learning patterns and outcomes. These tools have been shown to enhance student engagement and achievement by identifying students' unique educational needs and supporting differentiation, especially for students with learning differences. Al-powered formative assessment tools can provide real-time, constructive feedback to help students understand their mistakes leading to increased learning and retention. Through student performance data analysis, Al can assist teachers in identifying students who could benefit from additional support and can suggest targeted intervention strategies earlier than traditional methods.

### Opportunities and Forward-Looking Strategies

Embracing Al in K-12 classrooms offers an opportunity to transform learning experiences into interactive, engaging, and individualized lessons that <u>promote</u> student self-efficacy and achievement. Al can foster innovation, laying the groundwork for students to leverage educational opportunities

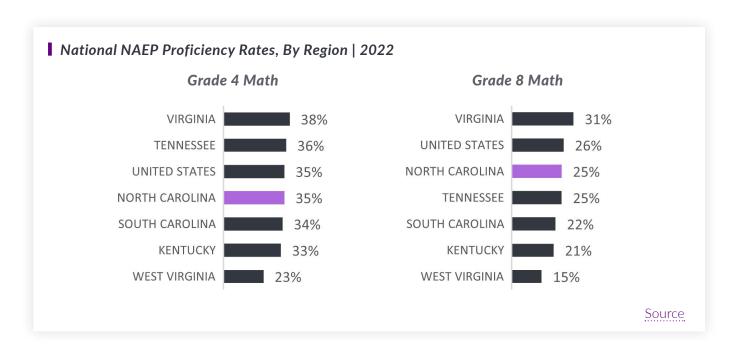
while preparing them to navigate an increasingly technologically advanced society. The integration of AI in education presents the opportunity to develop new student-centered educational models, such as problem-based learning, where AI can support student learning through guidance and resources to enhance learning experiences. While AI does offer the potential to transform K-12 education, it is important to recognize that not all schools have the resources or trained personnel to integrate the technology at the classroom level potentially resulting in a digital divide and potential educational inequities.

### **Policy Considerations**

- How can policymakers ensure that Al educational tools are accessible across diverse socioeconomic and geographic student populations?
- What data governance polices need to be developed to protect student privacy and prevent predictive analytics from negatively influencing educational outcomes?
- How can the state develop and fund professional development programs to train educators on effectively implementing Al technology in their pedagogy?
- How can existing curricula be modified to include digital literacy and training in the ethical use of AI?

# HIGH-QUALITY MATH INSTRUCTION

Mathematics proficiency serves as a benchmark to measure broadly the effectiveness of the United States' education system. Over a 19-year period from 1990 to 2009, the national average for fourthgrade and eighth-grade mathematics proficiency has trended upward. However, in 2022 only 35 percent of North Carolina's fourth-graders and 25 percent of eighth-graders demonstrated proficiency in math. Early math proficiency is a predictor for



future success including meaningful employment opportunities and economic independence, and high-quality math instruction focusing on the development of essential math concepts and skills is critical to achieving math proficiency.

### Evidence-aligned Math Instruction

There is a growing body of research combining objective evidence from cognitive psychology, education theory, and neuroscience to inform how math concepts and skills are learned. Traditional math teaching strategies rely on rote memorization and procedural training, however, these strategies do not foster deep mathematical understanding and problem-solving skills. Research indicates that students benefit from evidence-aligned math instruction that encourages active problem-solving, conceptual discussion, and application of math in real-world contexts.

# Preparing Teachers to be Effective Mathematics Instructors

Teacher education programs are pivotal in preparing educators to teach mathematics effectively, especially in light of the role mathematics proficiency plays in educational success and future opportunities. Mathematics knowledge is highly cumulative in nature and research suggests many elementary teachers lack confidence in their fundamental math abilities. As a result, an increasing number of undergraduate programs nationwide are allocating additional time for mathematics, aiming not only to equip future educators with teaching skills but also to foster a deeper conceptual understanding of math. By integrating evidence-aligned math instruction methodologies, including conceptual comprehension, procedural fluency, and real-world application in their instructional approaches, these programs can equip educators with the knowledge and skills needed to facilitate meaningful learning experiences.

### Potential Outcomes of Effective Math Instructional Strategies

Evidence-aligned math instruction that encourages active problem-solving, conceptual discussion, and application math in real-world context prepares students to be adept thinkers. A deeper understanding of mathematical procedures enables students to approach new problems from a critical and creative lens and encourages using logic and reasoning to find solutions. Additionally, real-world applications build transferable math skills, while prioritizing active engagement leading to better retention of knowledge.

### **Policy Considerations**

- How can policymakers prioritize the adoption of evidence-aligned instructional strategies in mathematics education?
- How can the state develop and fund professional development programs emphasizing the importance of balanced instructional strategies to integrate conceptual understanding with procedural fluency?
- How can mathematics curriculum frameworks be revised to incorporate evidence-based principles that promote critical thinking and real-world applications?

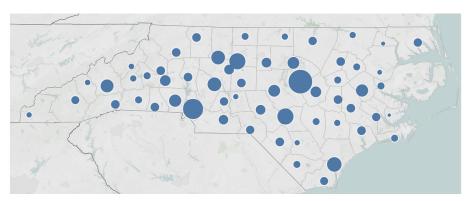
# COMMUNITY COLLEGES AS DRIVERS OF ECONOMIC SUCCESS

Community colleges provide affordable and accessible education and training programs that prepare students for high-demand jobs in various industries. North Carolina is home to 58 community colleges spanning across 100 counties. In Fall of 2023, the North Carolina Community College System reported over 393,000 students enrolled in community colleges across the state.

All of these colleges support students in engaging in educational opportunities that can result in expanding their access to continued education or enhanced economic success in future career opportunities. With a new proposed funding model (PropelNC) the North Carolina Community College System (NCCCS) will begin to prioritize aligning workforce needs and student education efforts to ensure North Carolina community colleges stay at the forefront of student educational needs and relevant to workforce and industry partners. North Carolina community colleges play a critical role in driving economic success in the state by providing affordable access to higher education and workforce development programs tailored to local employers' needs. This, in turn, helps to support economic growth and job creation in North Carolina.

#### **1** 2022-2023 North Carolina Community College System Enrollment

Each circle is scaled to represent the total number of students enrolled at each NC community college.



Source

A recent study found that the 58 colleges combined increased North Carolina's economy by \$19.3 billion in income. This impact is measured in the number of jobs supported in the local economy by both students and the activities and staffing of the institutions. Resultantly, the impact of the economic success of North Carolina community colleges is not simply allotted to the students who attend but also to the workforce that supports the staffing and community engagement in these institutions foster.

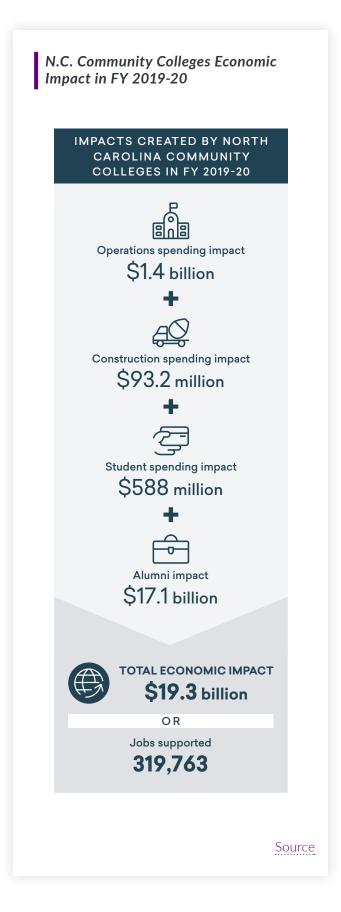
### Workforce Development

Workforce training and economic development are deeply woven into the fabric of the work and mission of community colleges. Community colleges meet the needs of both students and businesses in part due to their accessibility and support. North Carolina's community colleges boast a maximum 30 minutes or less commute for students and offer support of adult learners who are returning to school to obtain a degree or credential. They also offer a variety of workforce development programs designed to meet the needs of local employers. These programs provide students with the skills they need to be successful in the North Carolina job market while also helping to fill critical skills gaps in the local workforce.

NCCCS offers more than 1,400 affordable, short-term occupational skill training courses to train and enhance current knowledge of workers for North Carolina job skill requirements or certifications. Workforce development is also expressed in how community colleges in North Carolina support their local communities in general.

#### Affordable Access

In a recent study, <u>50 percent</u> of students cited the cost of postsecondary education as a concern in deciding their post high school plans. Community colleges are a great opportunity for students to engage in postsecondary education at an affordable rate. In fact, community colleges are often regarded as a low-cost alternative to four-year institutions.



These institutions support college access for a diverse student body and provide access to postsecondary and career success. North Carolina community colleges offer affordable access to higher education, which helps to level the playing field for students from all backgrounds. This not only helps to increase access to higher education, but also helps to support economic mobility by providing students with the skills and knowledge they need to succeed in the workforce.

Additionally, due to their impact on enhancing the local workforce, many states invest in scholarships and grant programs that will support students in completing their degrees, quickly matriculating into the workforce, and experiencing economic success. In North Carolina, the State Board of Community Colleges offered students close to \$3 million in student aid through workforce development grants during the 2022-23 fiscal year. This grant program assists in making noncredit state and industry certified credentials more affordable for students, as federal financial aid is not typically available for these types of credits. Providing grant programs like these support in making a postsecondary education affordable and subsequently supports in enhancing the economic success of North Carolina students.

### **Policy Considerations**

- How can policymakers work with community colleges and businesses to strengthen education and workforce partnerships to increase the economic success seen through community colleges?
- What are some ways that the state can connect K-12 students to community colleges to assist the transition between high school and postsecondary education and increase the economic success students see post community college completion?
- How can policymakers find ways to make community college more affordable for students who are working to enhance their

education through unique credentialing opportunities that aren't always federally funded?

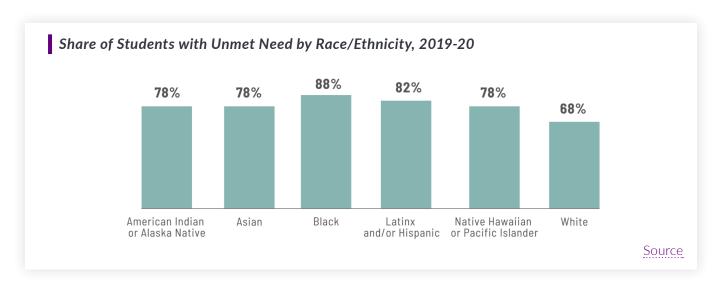
## CURRENT TOPICS IN HIGHER EDUCATION AFFORDABILITY

While college is often the goal for students post high school, it must first be affordable for students and families. With the cost of higher education increasing across the U.S., it's important to shed some light on the ways in which higher education affordability affects students. Key topics in Higher Education Affordability include addressing the unmet need for Pell Grant recipients, tuition costs, and student debt.

### Unmet Need for Pell Grant Recipients

Over <u>80 percent</u> of U.S. students receive financial aid. The most common form of financial aid provided for low-income students is the Federal Pell Grant. Each year, Pell Grants help approximately six million students from low-income backgrounds pursue a postsecondary education. According to the U.S. Department of Education, in the 2021-22 school year, there were over <u>six million</u> students who received over <u>25 billion</u> dollars in Pell Grants. However, Pell Grant award amount <u>has not kept up</u> with the increase in college tuition and the amount some students receive does not cover the total financial demands of higher education. As a result, some students who receive Pell Grants are still struggling with unmet need.

Unmet need is the amount of money still needed to support the college experience after receiving financial aid. A recent study found students who received a federal Pell Grant at least once in their academic career face almost \$10,000 of unmet need compared to their peers who haven't received Pell Grants. The amount of unmet need is further amplified when disaggregated by race. As a result of unmet need, Pell Grant students who aren't offered additional aid often take out loans and further exacerbate their financial situation.



# Delay in The Federal Application for Student Aid Data

Many students rely on Free Application for Federal Student Aid (FAFSA) data to help them determine if they can afford to go to college. Upon completing the FAFSA, students weigh the amount of grant and loan eligibility they receive federally in conjunction with the amount they will receive from the state and their potential higher education institutions. Some students, especially those who have financial insecurities, rely on FAFSA data to determine if they can even afford to enroll in postsecondary education.

While FAFSA serves as a gateway to financial aid, it is estimated that the high school class of 2022 left over \$3.5 billion of unclaimed financial aid on the table. In states like North Carolina, for example, the average non-FAFSA completers in 2023 were higher than the national average. With low FAFSA completion rates, it means much needed federal aid is forgone by non-completers. Even more devastating, lack of FAFSA completion may mean students aren't even seeking postsecondary education at the two-year or four-year level.

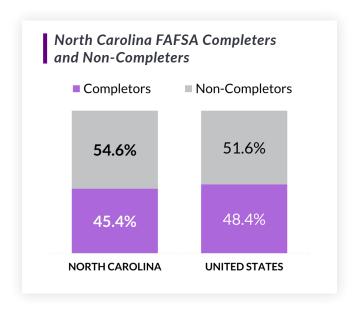
In December 2023, The FAFSA Simplification Act (enacted in 2022) resulted in the launch of a new, simplified version coined "Better FAFSA." This new FAFSA was designed to meet the new and diverse

needs of students and families and present a more user-friendly version of the commonly used financial aid determination form.

With many technical glitches still awaiting resolution and delays in Better FAFSA data due to a <u>last-minute</u> update to better capture parental income, the U.S. Department of Education has had to delay reporting data to institutions to ensure the information collected from students and the formulas used to determine aid are accurate and supportive of students, institutions, and state and federal aid resources. The U.S. Department of Education announced institutions would receive data by the first half of March, but this revised date impacted the timelines states and institutions had already set regarding notification of aid awards and subsequent student decisions on acceptance and enrollment.

Colleges and universities are used to having federal student aid data on hand by January, prior to a new school year. This data helps institutions determine the amount of financial support they can provide students. Unfortunately, due to the delay in FAFSA data, the U.S. Department of Education shared the FAFSA data colleges need to determine financial aid disbursement amounts for students will not be available until March, only a few months before students typically decide which institution they will attend, and close to many scholarship deadlines. Completing the "Better FAFSA" has been a challenge

for many students across the U.S., meaning some students, including <u>low-income</u> or students from <u>immigrant families</u>, might opt out of completing FAFSA due to the difficulties, stifling the progress many states have made in postsecondary attainment efforts. In fact, a recent study found a close to 40 percent decrease in the number of students who applied for FAFSA in February 2023 and the amount of FAFSA completions in February 2024. With the FAFSA completion deadline coming up in <u>June</u>, the FAFSA delay has major implications on institutional support, student need, and ultimately – student postsecondary attainment.



#### **Tuition Costs**

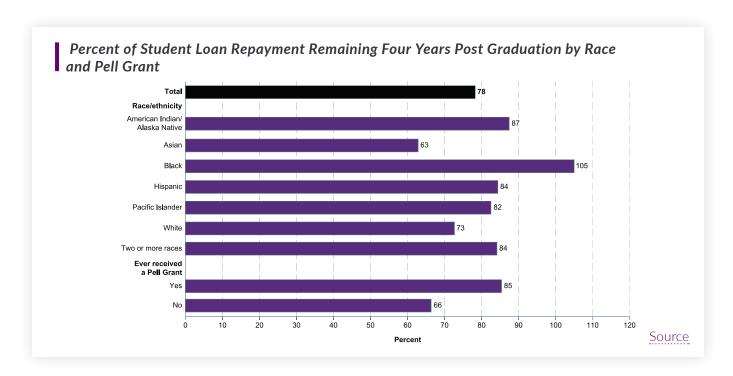
Tuition costs across the United States have increased. The College Board recently released a report on the cost of attendance and they reported (before adjusting for inflation) a tuition increase of 2.5 percent for public four-year in state tuition and 2.6 percent for public two year institutions. The increase for out of state students at public four-year institutions and private nonprofits were three percent and four percent respectively. While the rise may not seem great, college prices have increased by close to 12 percent between 2010 to 2020 and by over 100 percent from 1980 to 2023. North Carolina has implemented structures such as tuition

freezes to support students in experiencing a slow increase in tuition costs across the state; however, out of state students still experience increases in tuition. The rise in tuition remains a constant conversation in higher education affordability because some states are still increasing tuition for students making accessibility difficult. Additionally, tuition costs remain a topic of conversation because it illuminates the need for more federal aid to support students attempting to access education as states make efforts on their end to support students with affordable college and tuition prices. States are now spending more on public higher education than the 2008 recession, but federal aid has not risen past the 2008 recession levels. State policymakers and federal policymakers must assess how higher education affordability topics like tuition can be supported in a balanced way at both the federal and state level.

#### Student Debt

Across the United States there is a total of \$1.75 trillion in total student loan debt. Of that debt, over 90 percent is from federal student loans. The average student debt per borrower is over \$28,000, and the average is closer to \$36,000 for North Carolinians. The numbers are startling and a cause for concern. Student debt is something that can cause hesitation for students to even enter higher education. Lack of understanding and misinformation around student debt is often a barrier for first-generation college students and low-income students.

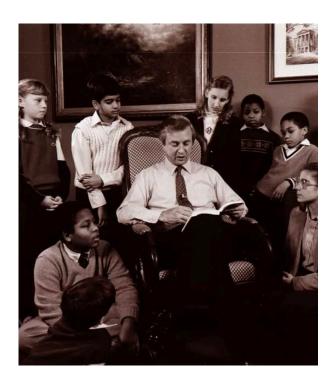
Student debt becomes an even more nuanced topic when disaggregated by race. Black and Brown students amass more student debt than their white peers, resulting in exacerbating racial financial disparities post-higher education. The National Center for Education Statistics (NCES) notes the amount of debt still owed on money borrowed four years after graduation is still higher for Black, American Indian/Alaska Native, Hispanic, and Pacific Islander students than for white and Asian students.



The amount of debt still owed by Pell Grant recipients is higher than their peers who never received Pell Grant. More education around student loans and student debt can help students make informed decisions about financial aid and the process of paying back loads, especially for first generation students who incur more debt than their second-generation peers.

### **Policy Considerations**

- What can policymakers do to address the decrease in federal funding for higher education across the U.S.? What are some ways policymakers can increase transparency in tuition costs as well as overall cost of attendance for students?
- What policies can be implemented to assist in educating students early about loans and debts so they can be prepared prior to applying for college? Could there be policy implementation at the K-12 level?
- How can state policymakers address the impacts of the delayed FAFSA on students who will be seeking financial aid from state financial aid programs that use FAFSA data?



Established in 2001, The Hunt Institute honors the legacy of James B. Hunt, Jr., the former governor of North Carolina who distinguished himself as an ardent champion of education.

The Hunt Institute brings together people and resources to inspire and inform elected officials and policymakers about key issues in education, resulting in visionary leaders who are prepared to take strategic action for greater educational outcomes and student success.

In 2016, The Hunt Institute became an independent, nonprofit entity and joined forces with Duke University's Sanford School of Public Policy to pursue research, educational partnerships, and events related to improving education policy.

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