

# NC's Leaky Education Pipeline

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Director, Carolina Demography



CAROLINA  
POPULATION CENTER

CAROLINA  
**DEMOGRAPHY**

# About Carolina Demography: What we do

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## Data Acquisition

We know where to find relevant data and can translate complex information based on the questions you need to answer. (We can also help you determine what questions to answer.)



## Custom Population Estimates and Projections

Using Stata, SAS and R, we can project populations or school enrollments that give insight into how your community will shift in the coming years.



## Data Analysis and Interpretation

We can identify potential policy responses to demographic change and analyze the impact of current or proposed policies on specific populations.



## Workshops, Trainings and Presentations

We convene and engage your stakeholders and decision-makers to facilitate understanding and dialogue and strengthen the capacity of your organization to communicate data-driven ideas.

# About Carolina Demography: What we do

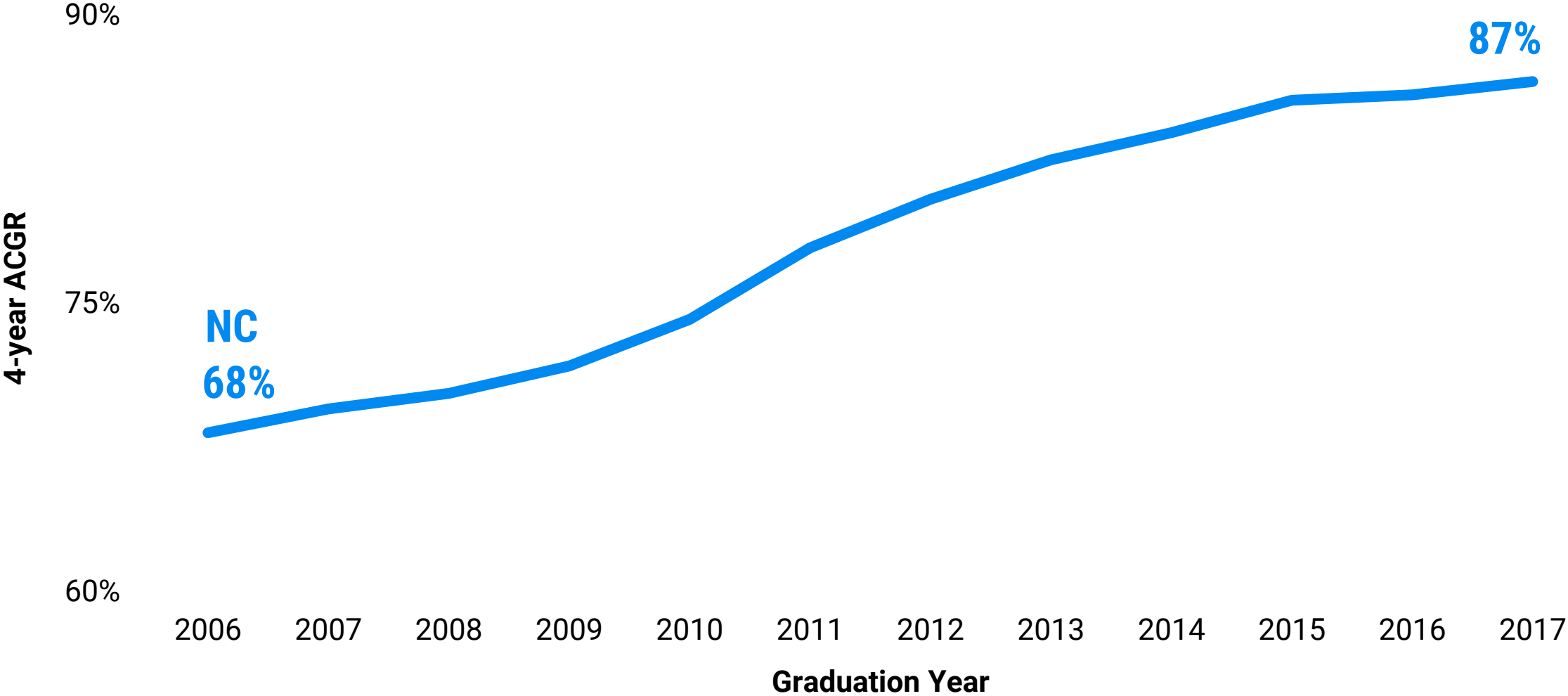
We help leaders throughout our state answer the question: **Where is North Carolina heading?**

Located within the Carolina Population Center at UNC-Chapel Hill, we use population-level data and other available research to provide context and perspective to people working to shape North Carolina's future.

**High School**

# More 9th graders completing HS on-time

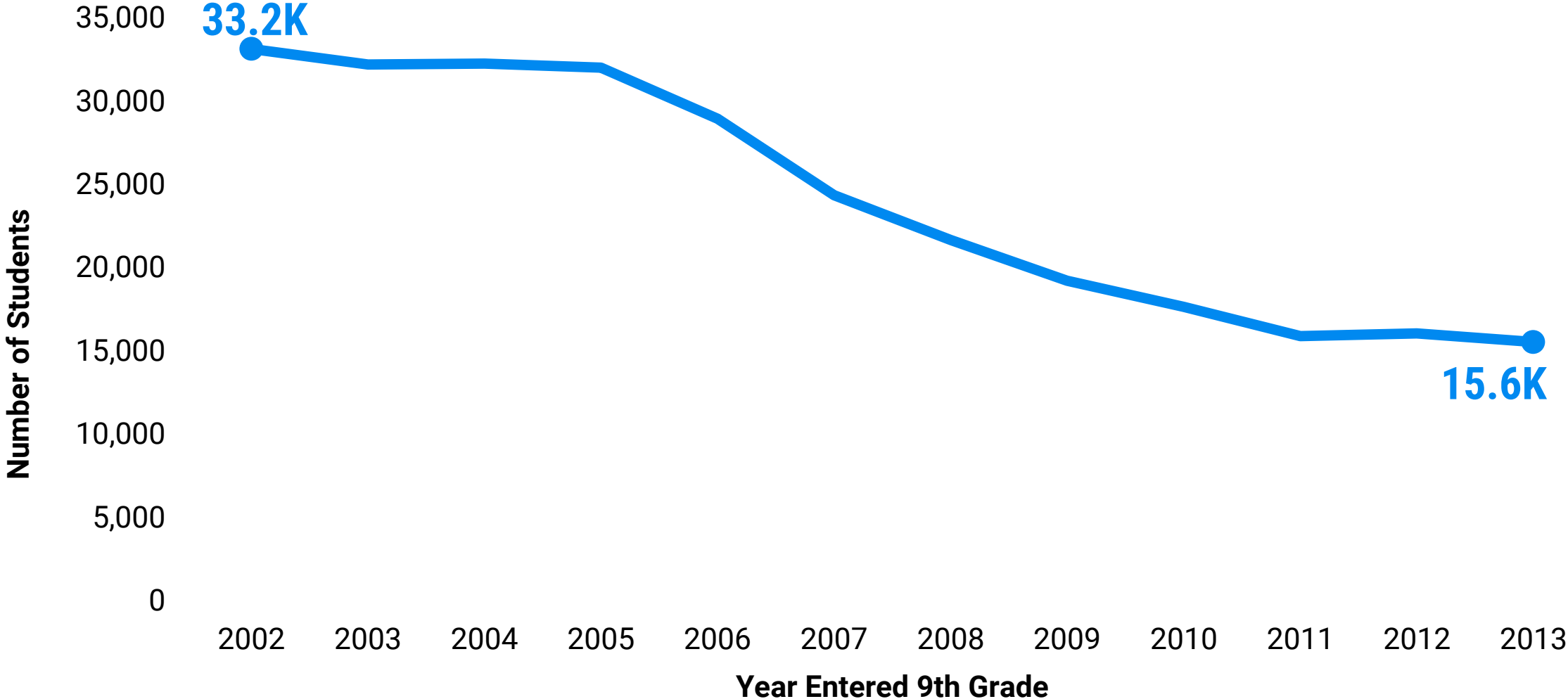
Share of NC 9th graders graduating high school in 4 years, 2006-2017



Source: NC DPI

# Students not completing HS dropped by 18K

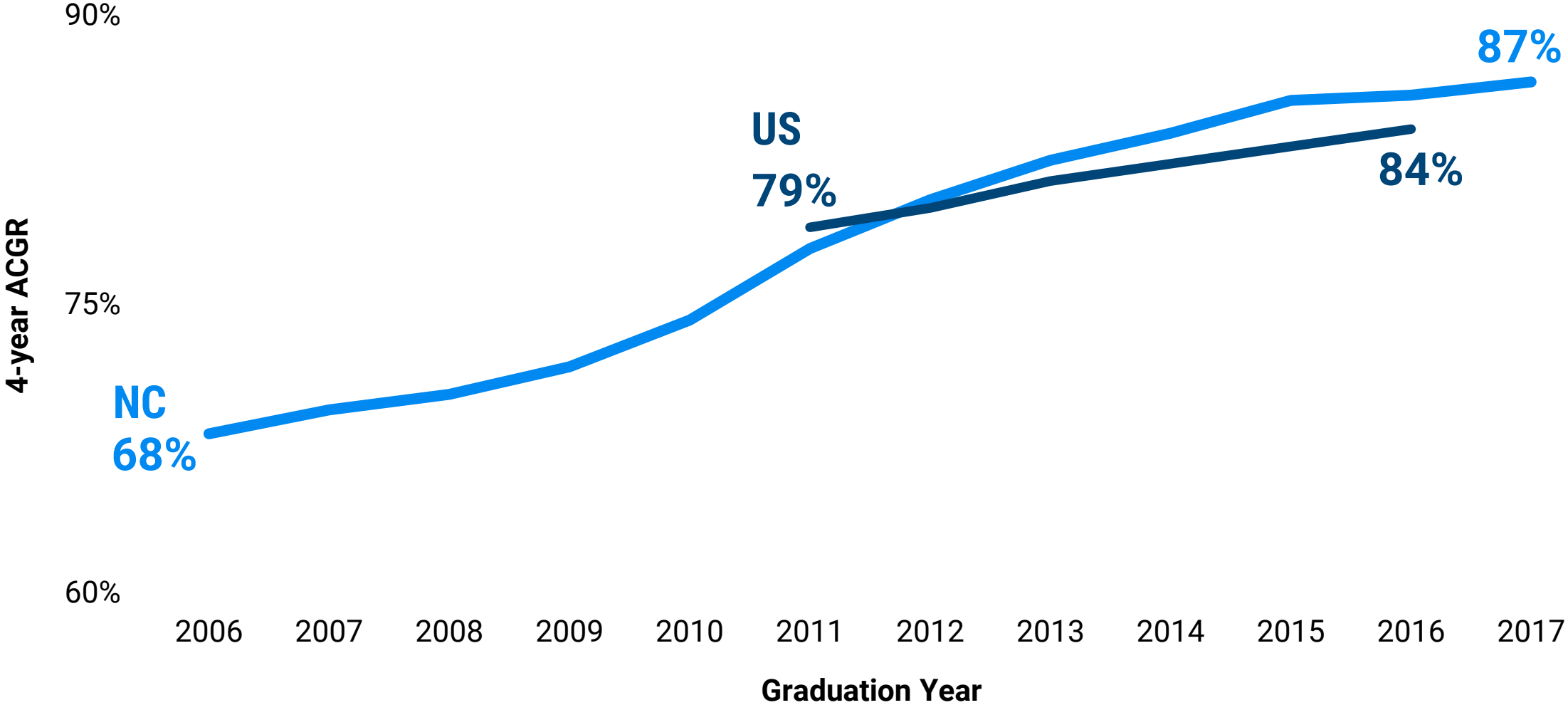
Number of 9<sup>th</sup> graders who did not graduate in 4 years, 2002-2013 entrants



Source: NC DPI

# NC on-time HS graduation above US average

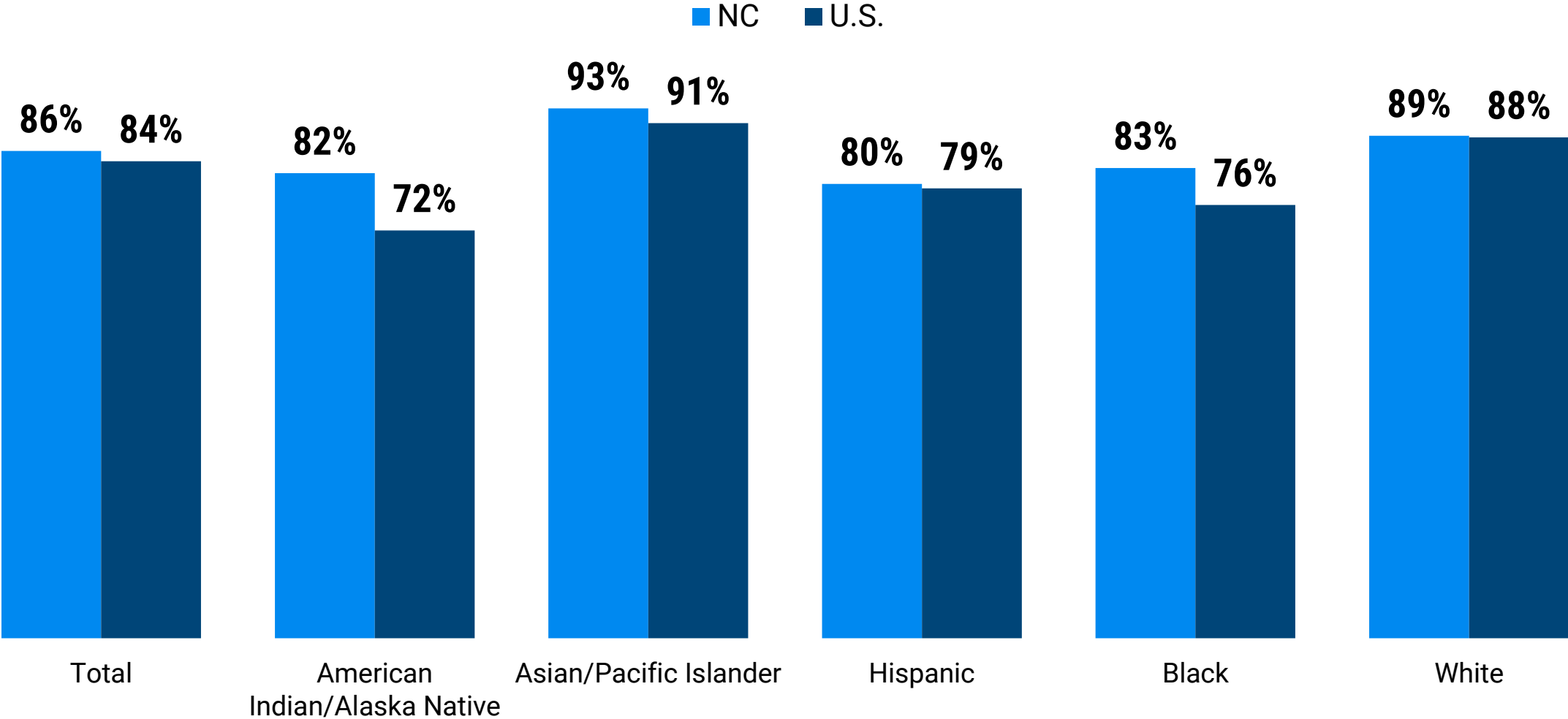
Share of NC vs. US 9<sup>th</sup> graders completing high school in 4 years, 2006-2017



Source: NC DPI; NCES

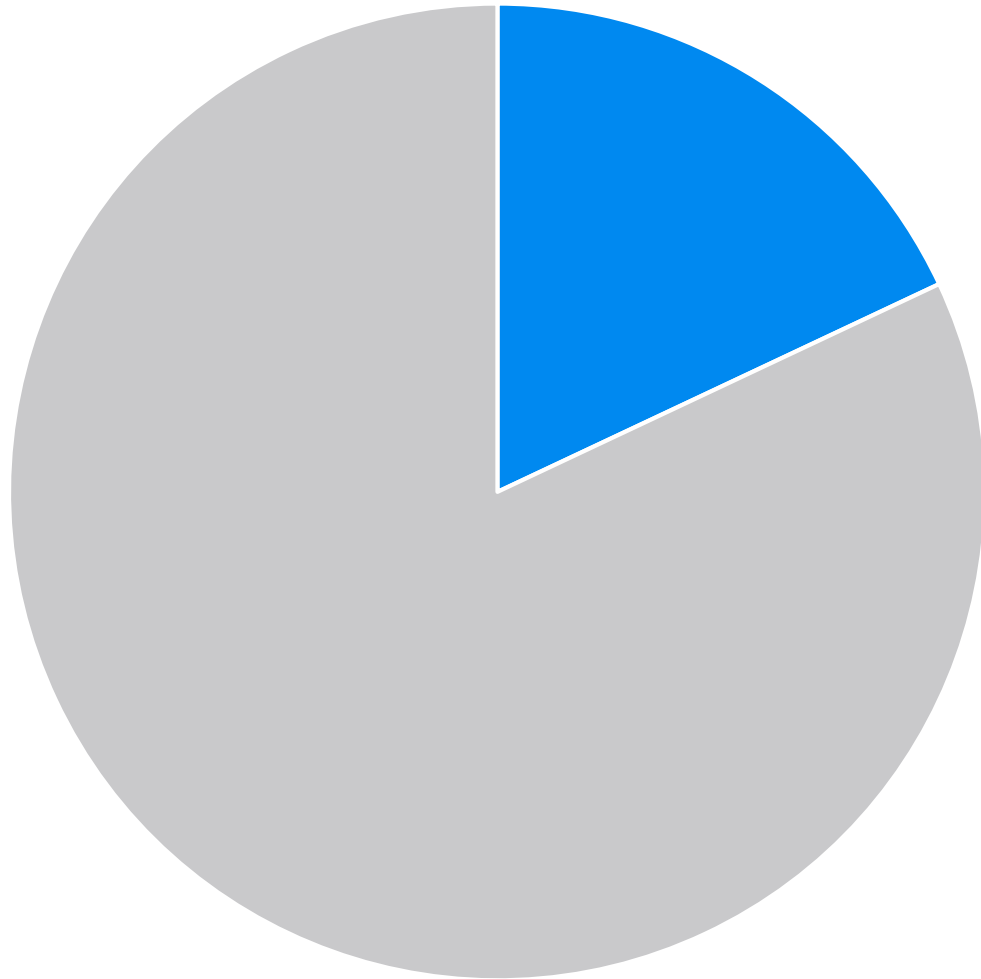
# NC subgroups outperform nation

4-year adjusted cohort graduation rates by subgroup, NC vs. US, 2015-16



Source: NC DPI; NCES





**18%** of NC high school graduates met **all 4 ACT college readiness benchmarks** in 2017

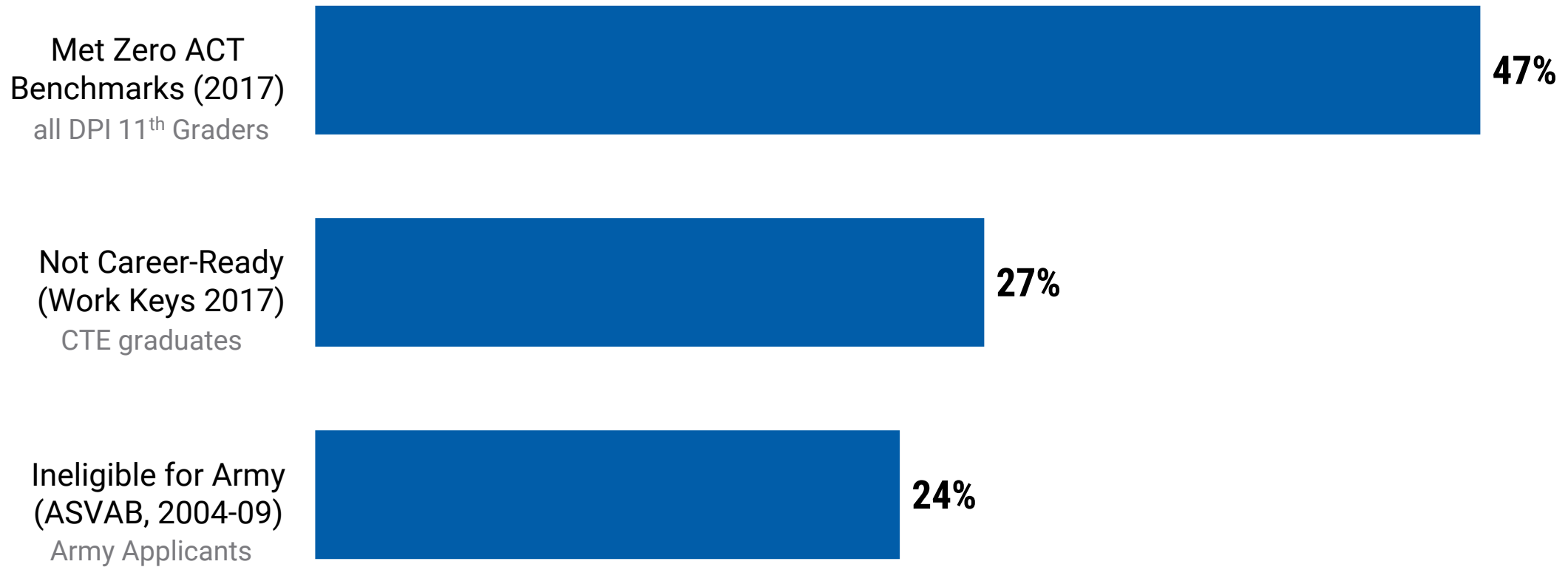
**47%** of NC high school graduates met **zero ACT college readiness benchmarks** in 2017



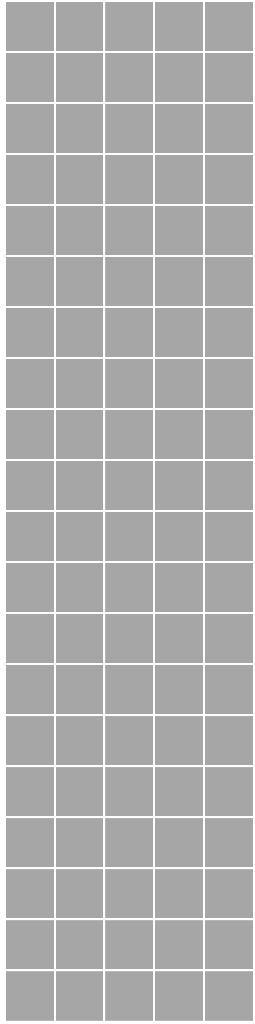
“ Today, **college readiness is** synonymous with **career readiness.** ”

- ACT, *The Forgotten Middle* (2014 update)

# 1 in 4 graduates not ready for work, military

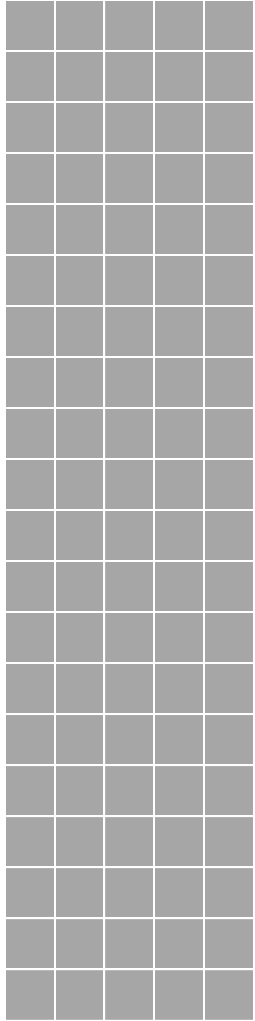


# Postsecondary Pipeline

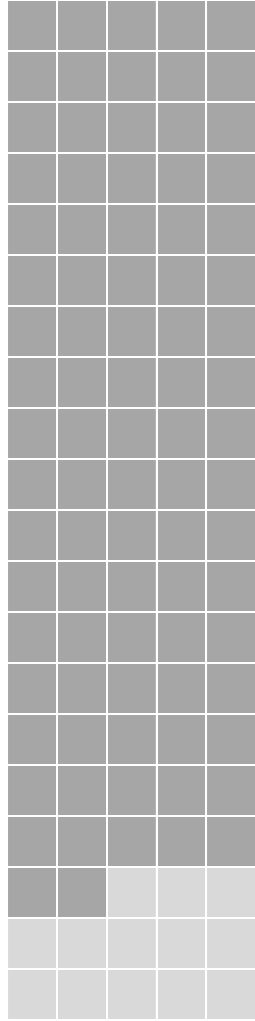


**100**  
9th graders

# On-Time Completion

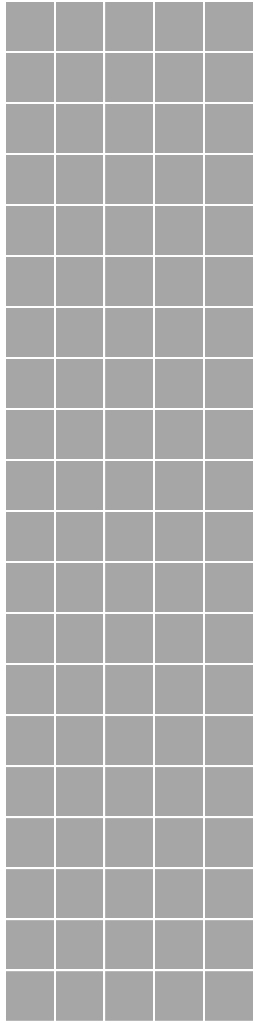


**100**  
9th graders

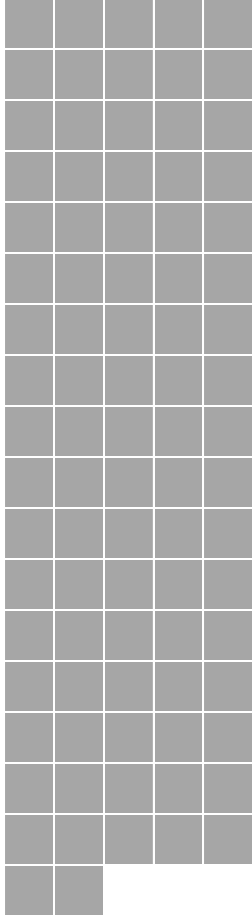


**87**  
on-time  
graduates

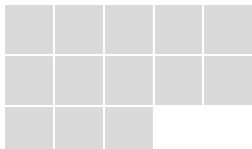
# On-Time Completion



**100**  
9th graders



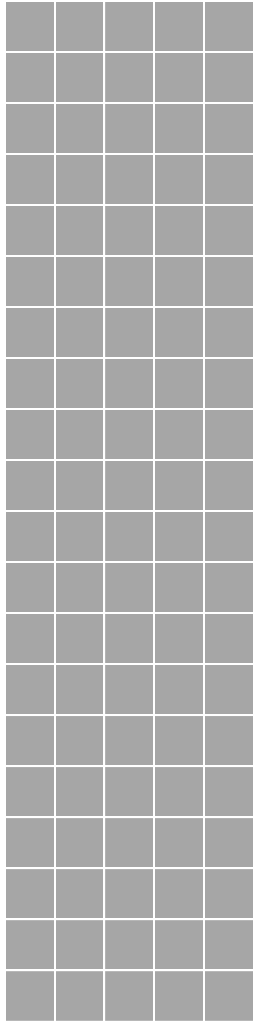
**13**  
dropout or take more  
than 4 years



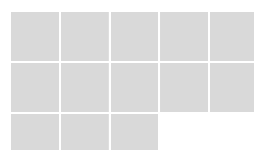
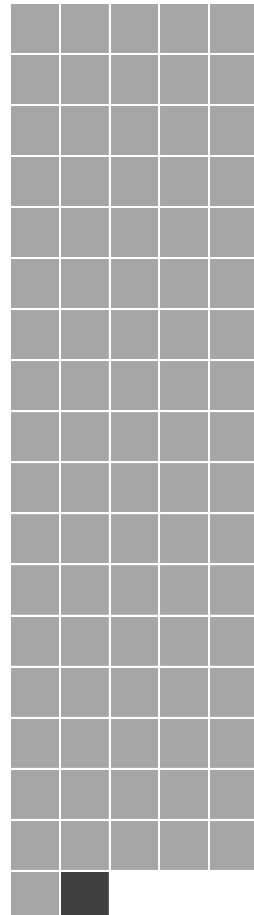
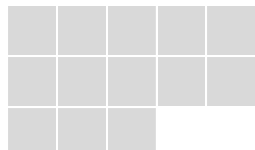
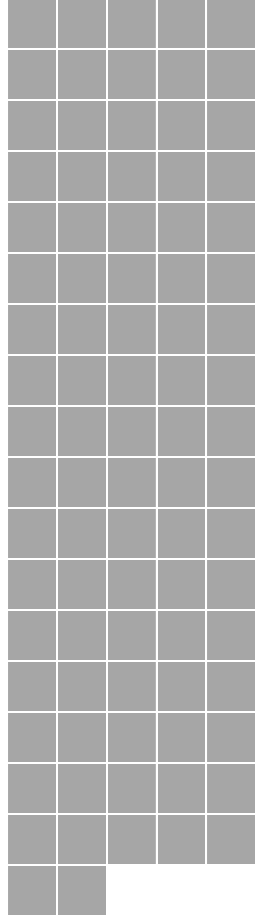


# On-Time Completion

# Spring Intent



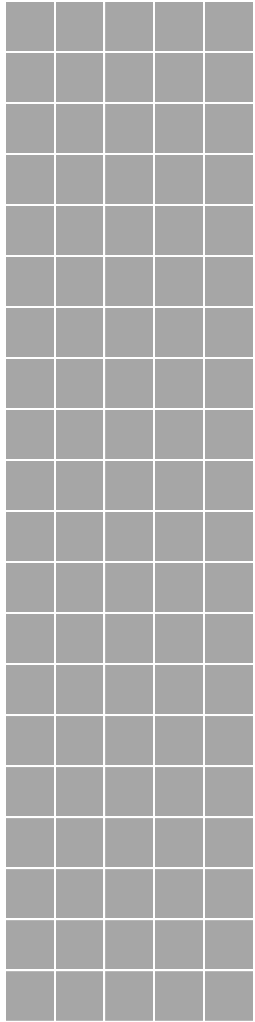
**100**  
9th graders



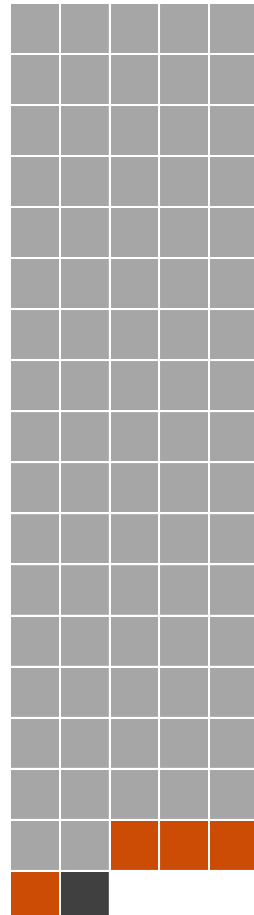
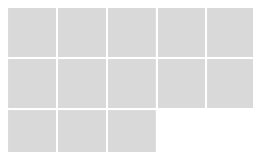
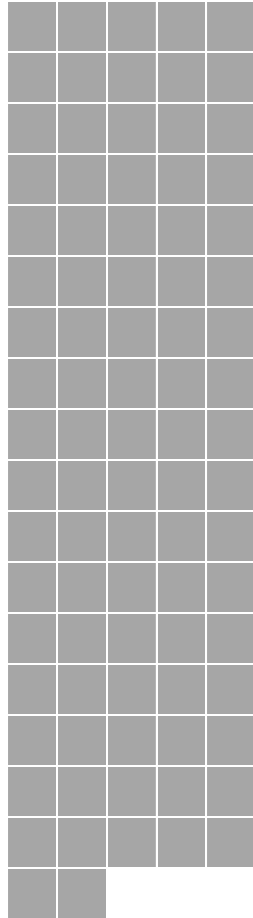
**1**  
no clear plans

# On-Time Completion

# Spring Intent



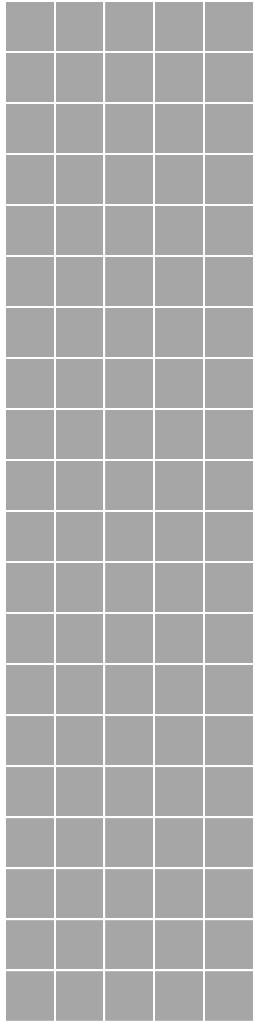
**100**  
9th graders



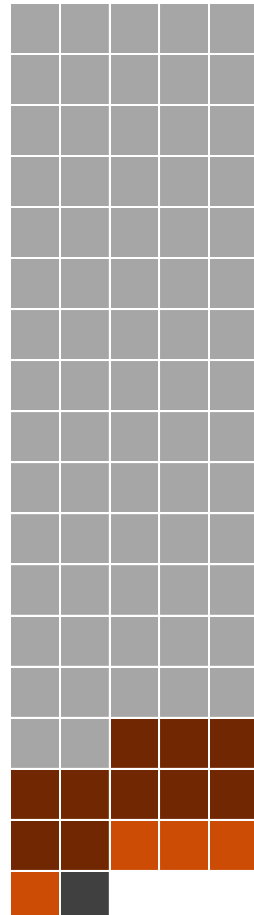
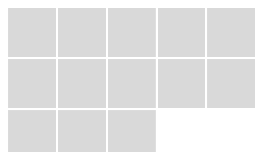
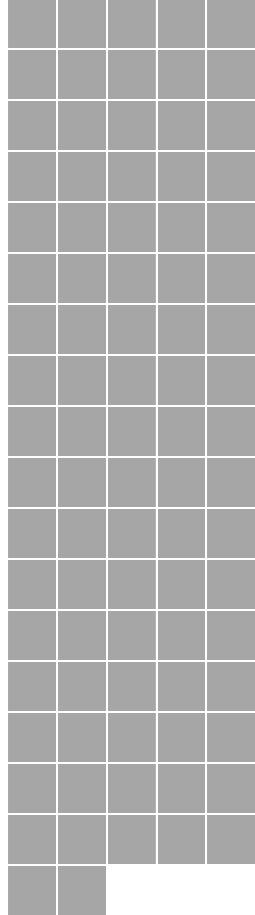
**4**  
military intent  
**1**  
no clear plans

# On-Time Completion

# Spring Intent



**100**  
9th graders



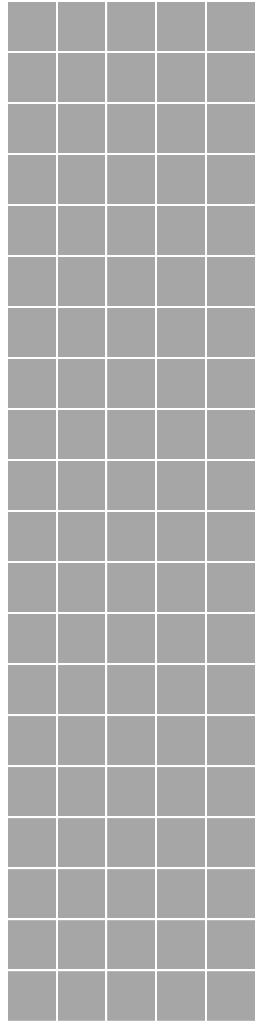
**10**  
workforce

**4**  
military intent

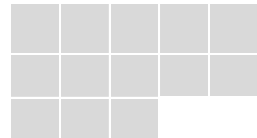
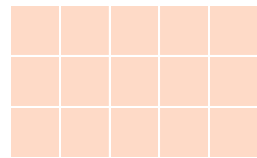
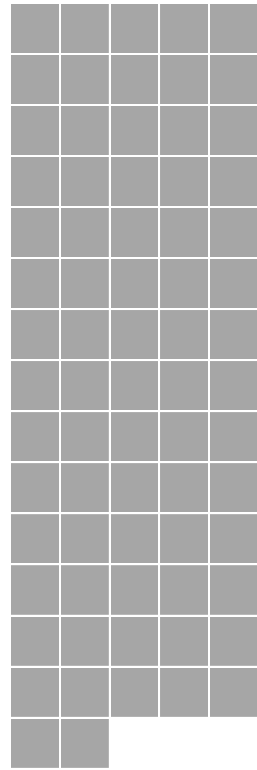
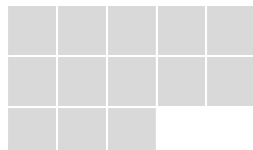
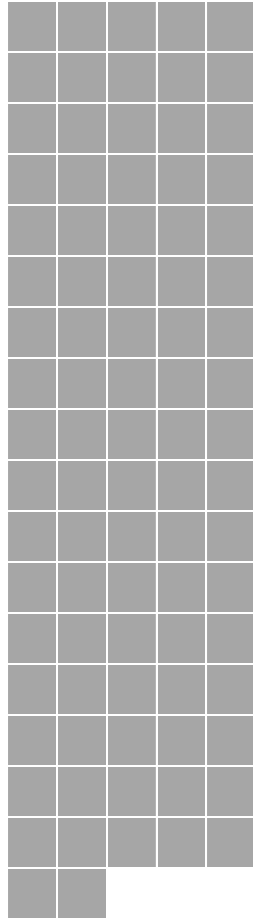
**1**  
no clear plans

# On-Time Completion

# Spring Intent



**100**  
9th graders

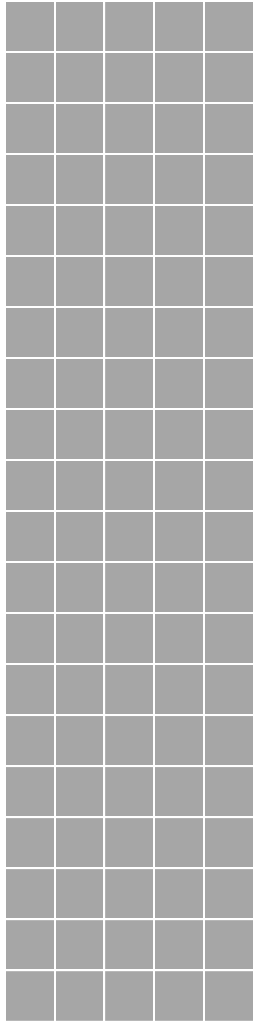


**72**  
with postsecondary  
intentions

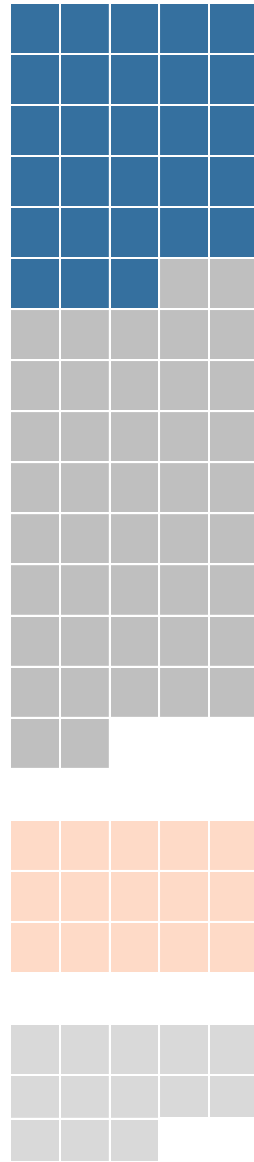
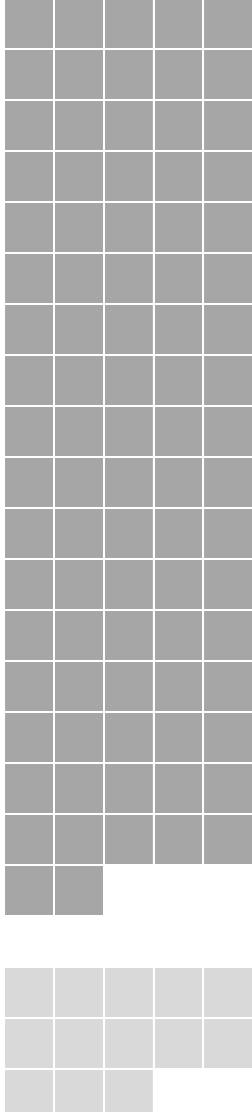
**On-Time  
Completion**

**Spring  
Intent**

**28**  
UNC

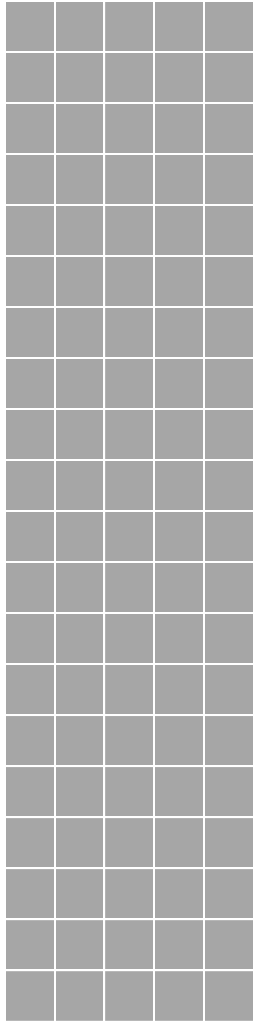


**100**  
9th graders

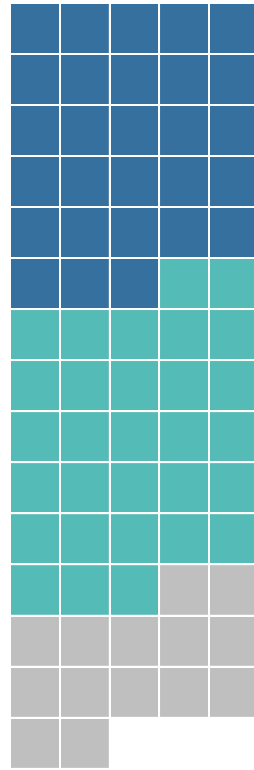
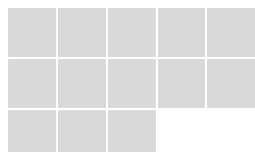
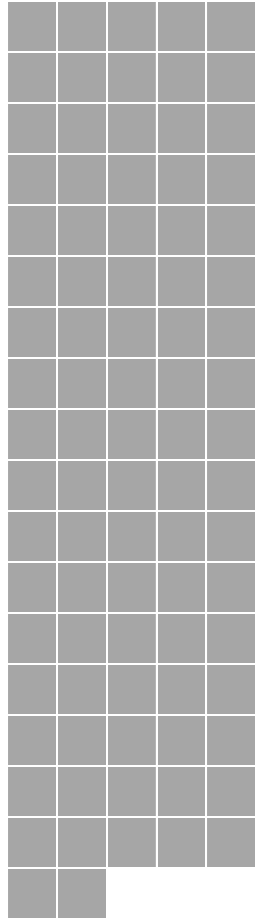


# On-Time Completion

# Spring Intent

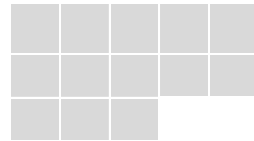
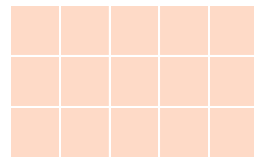


**100**  
9th graders



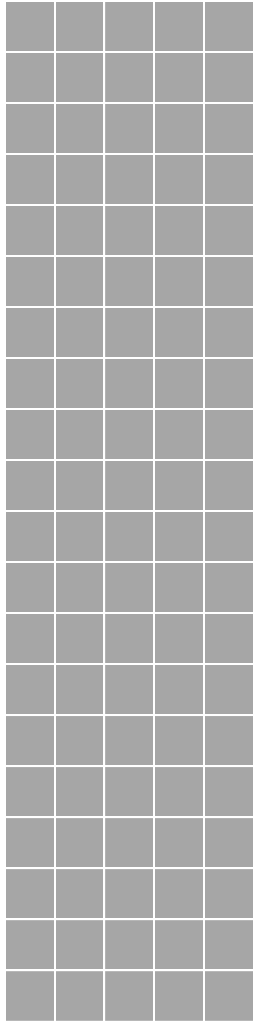
**28**  
UNC

**30**  
NCCC

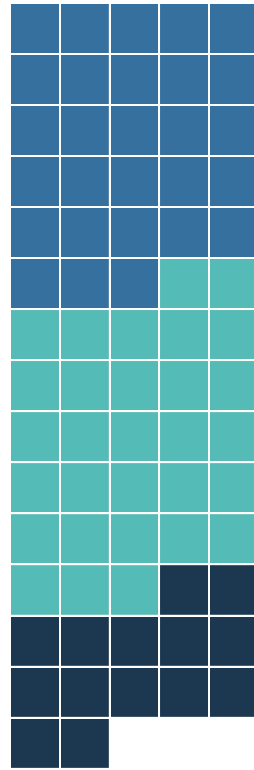
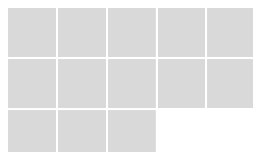
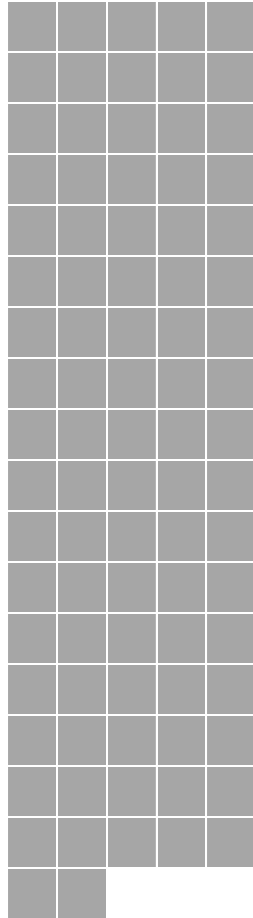


# On-Time Completion

# Spring Intent



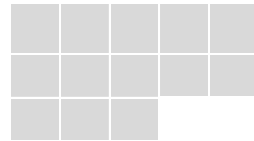
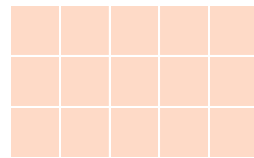
**100**  
9th graders



**28**  
UNC

**30**  
NCCC

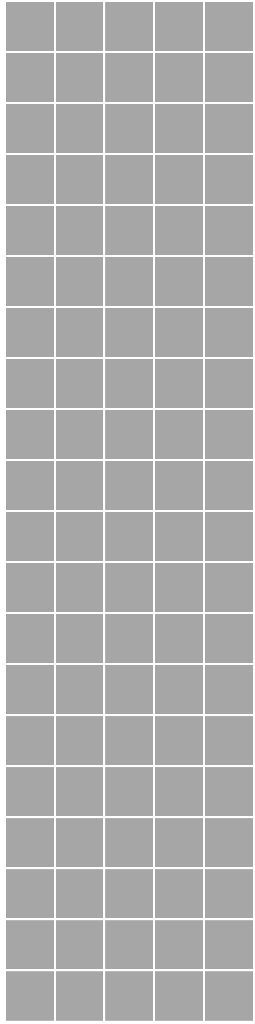
**14**  
Out-of-State  
or Private



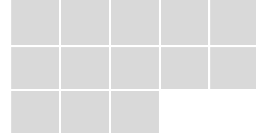
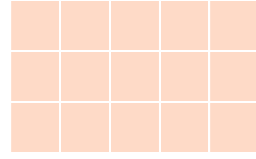
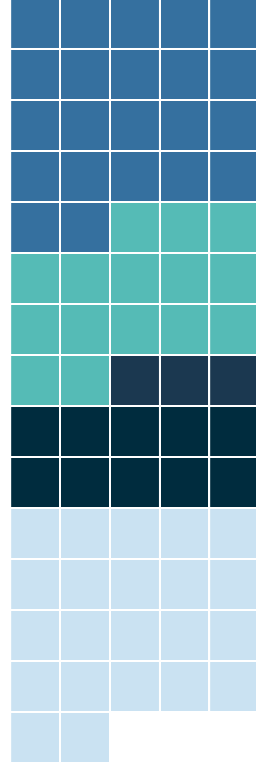
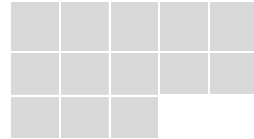
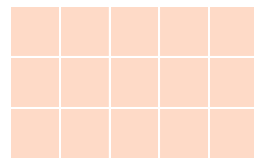
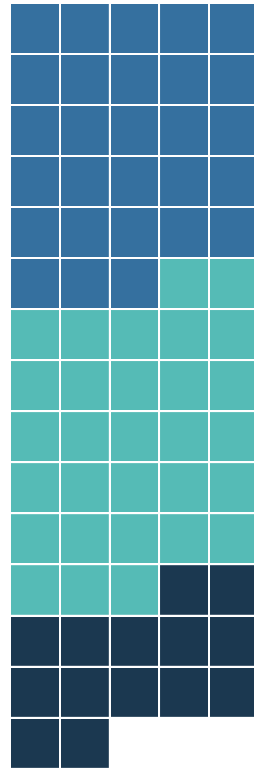
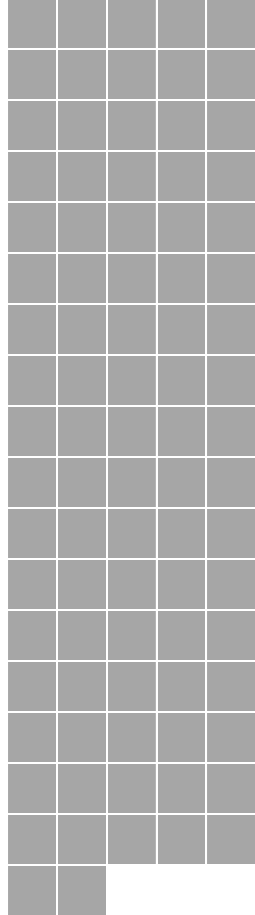
### On-Time Completion

### Spring Intent

### Fall Enrollment



**100**  
9th graders



**22**  
UNC

**15**  
NCCC

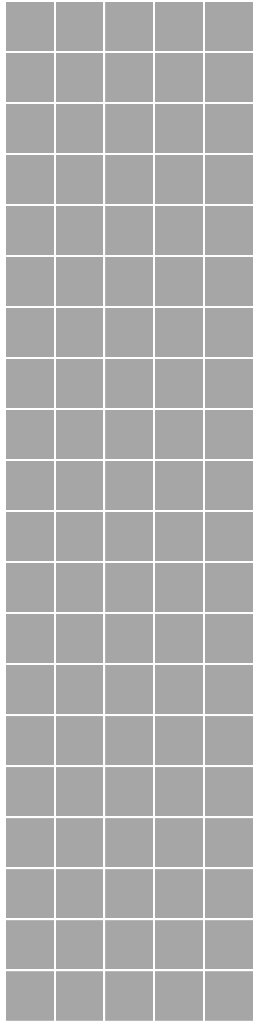
**13**  
Out-of-State  
or Private



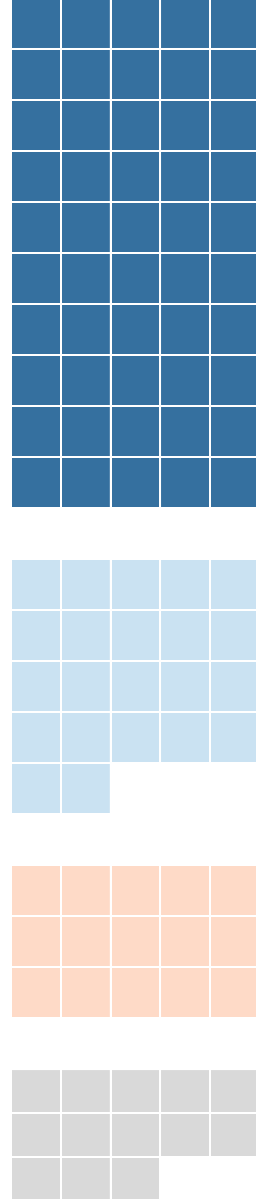
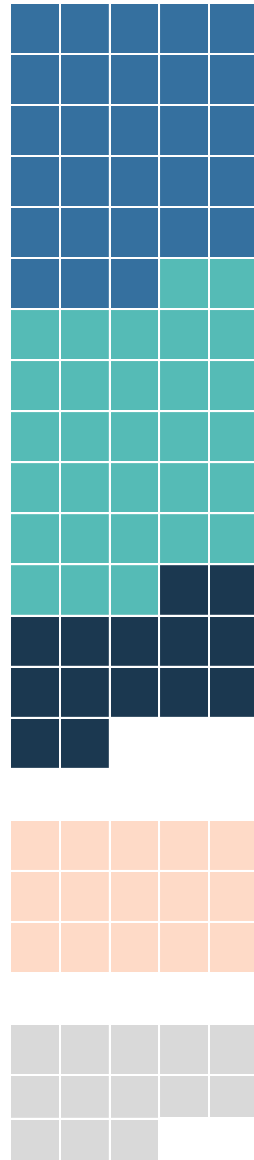
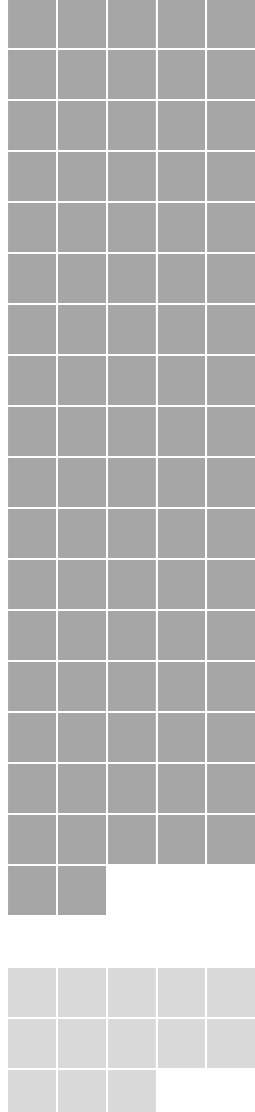
**On-Time  
Completion**

**Spring  
Intent**

**Fall  
Enrollment**



**100**  
9th graders



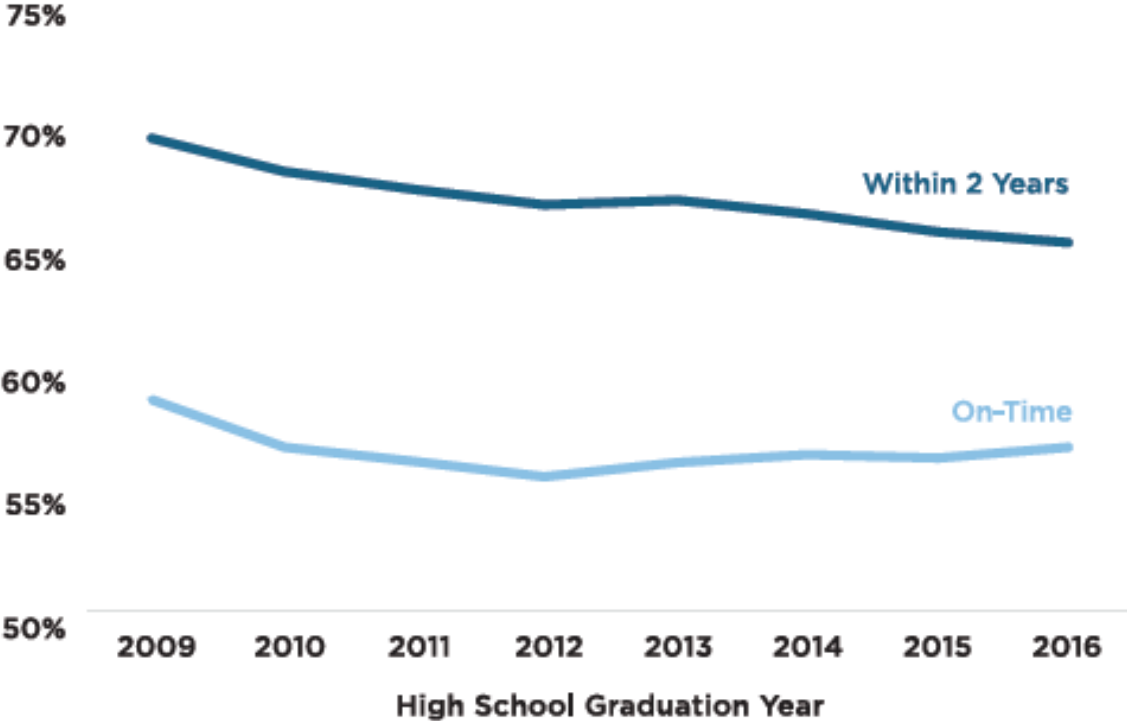
**50**  
enrolled in  
postsecondary

**22**  
not enrolled

**On-time enrollment**

# Enrollment Rates Declining

FIG. 1: POSTSECONDARY ENROLLMENT RATE OF NC HIGH SCHOOL GRADUATES BY TIMING (2009-2016)



**57%** in 2016  
VS.  
**59%** in 2009

# Enrollment Rates Declining

FIG. 1: POSTSECONDARY ENROLLMENT RATE OF NC HIGH SCHOOL GRADUATES BY TIMING (2009-2016)

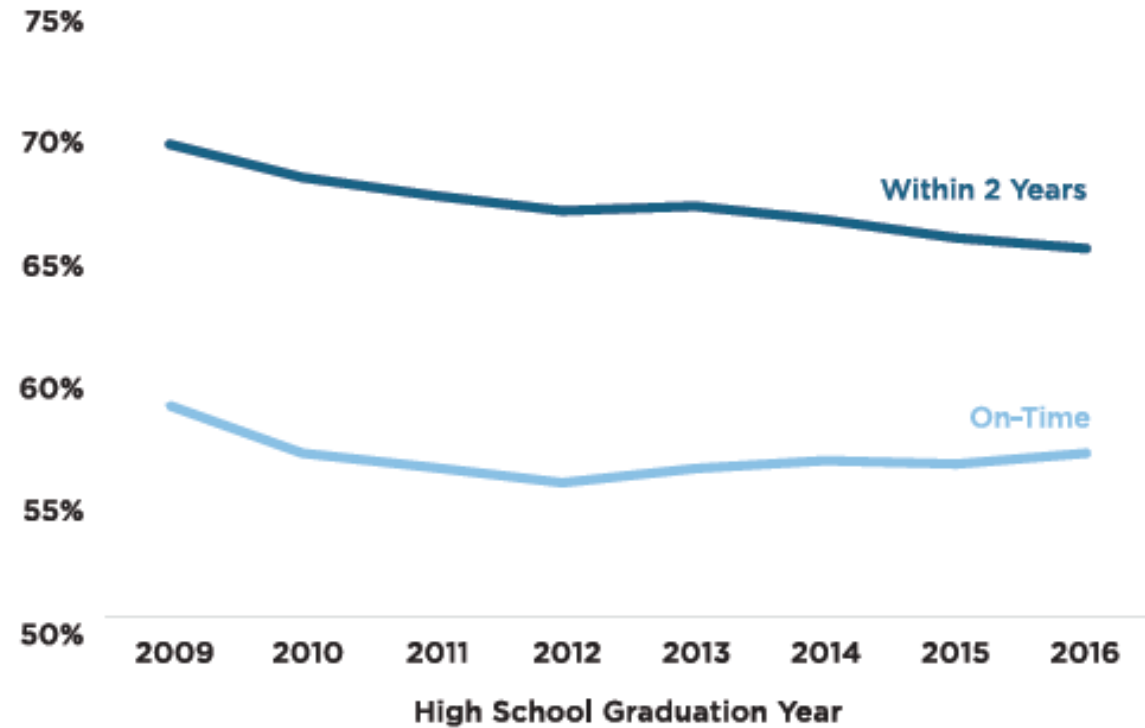


FIG. 2: DELAYED POSTSECONDARY ENROLLMENTS BY TIMING OF ENROLLMENT (2009-2016)

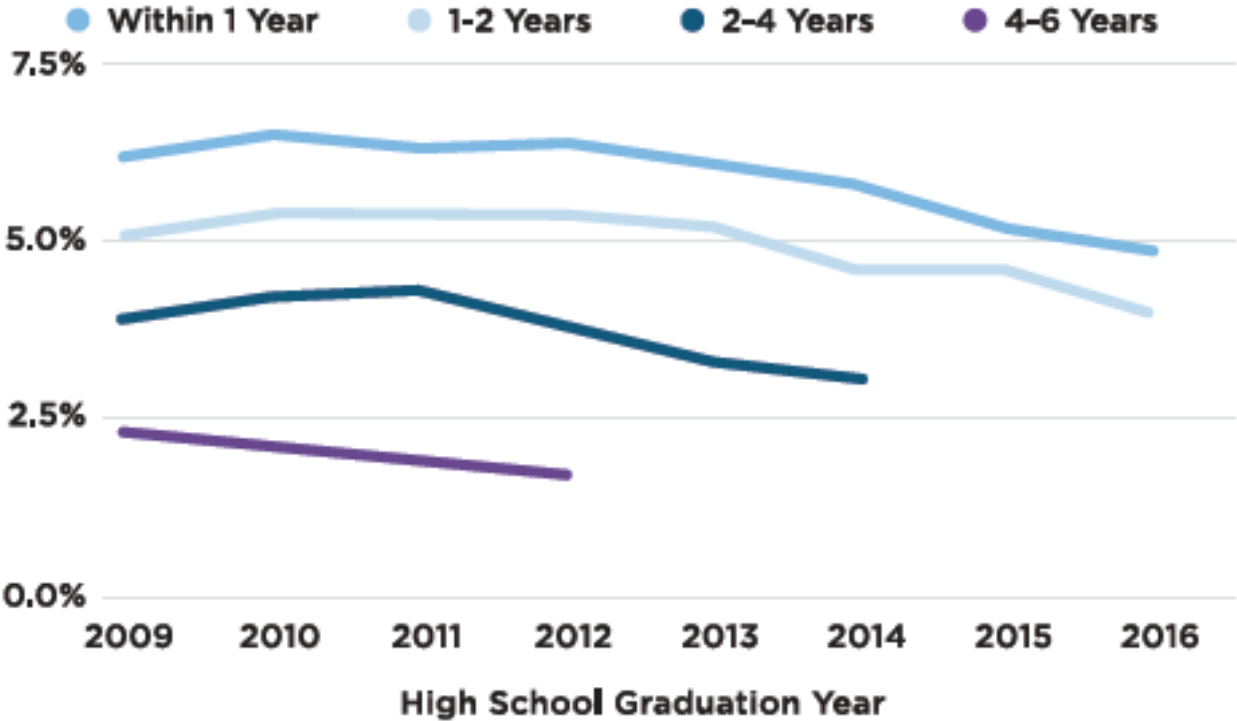


FIG. 3: ON-TIME ENROLLMENT RATES BY COUNTY (2009-2016 avg)

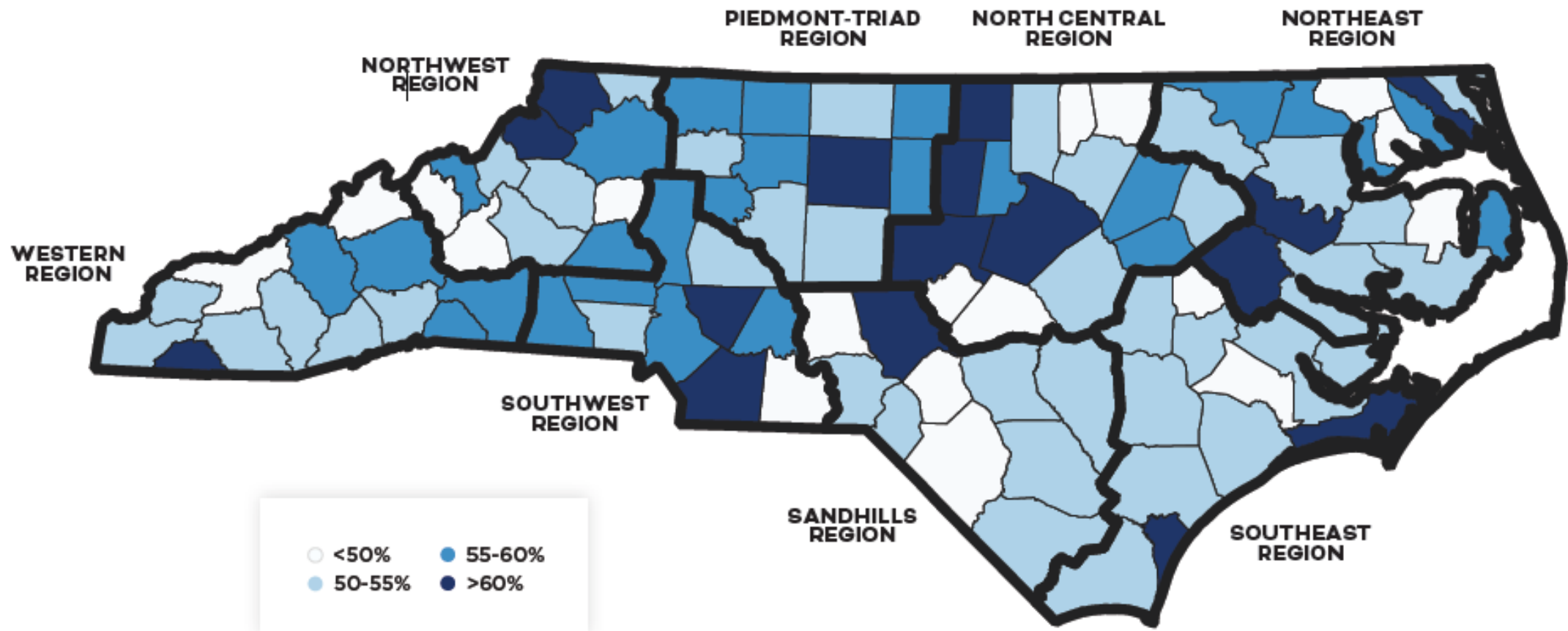


FIG. 5: ON-TIME COLLEGE ENROLLMENT RATES FOR FEMALE, MALE, BLACK, WHITE & HISPANIC HIGH SCHOOL GRADUATES, BY PROSPERITY ZONE (2009-2016)

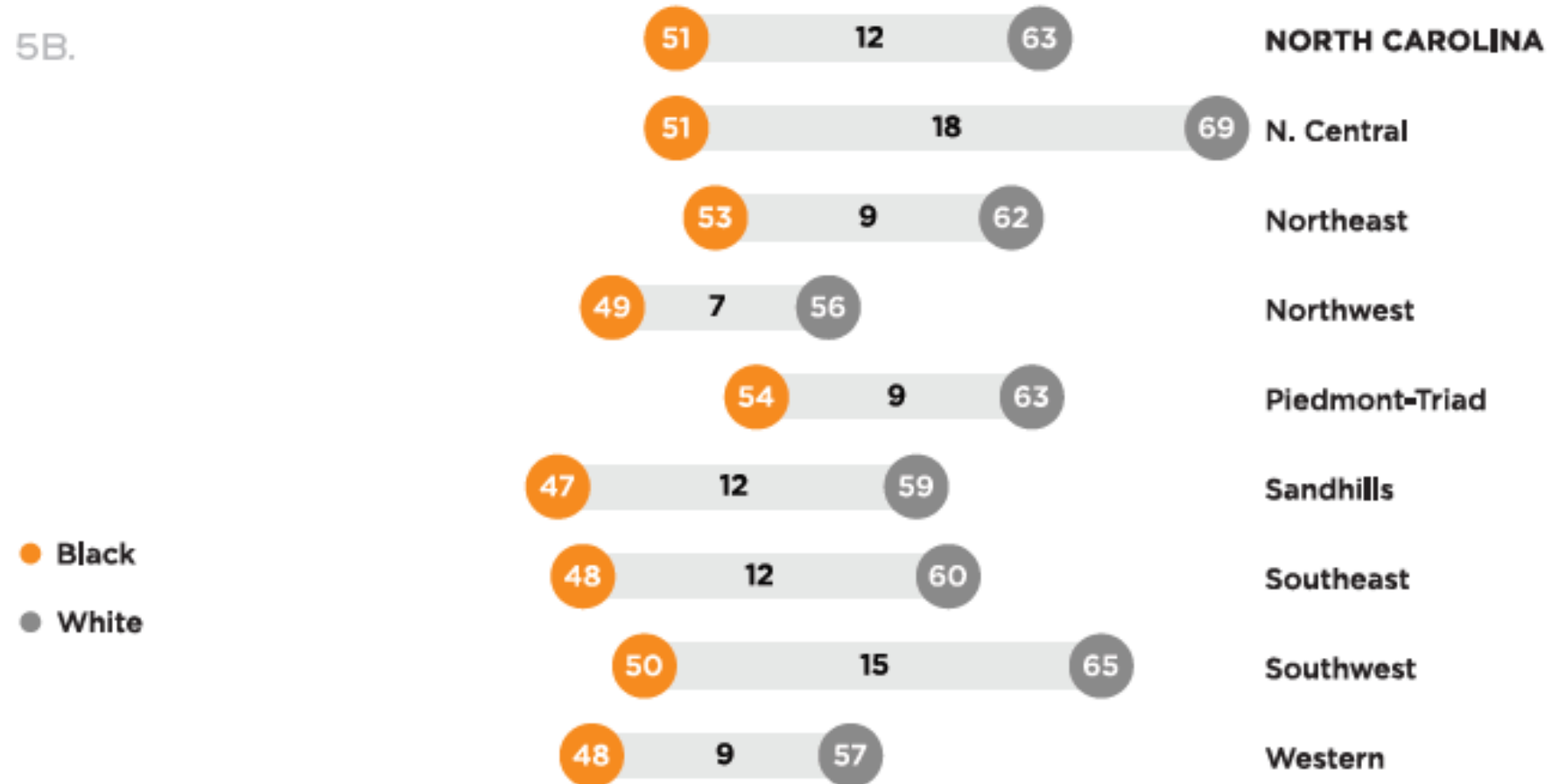
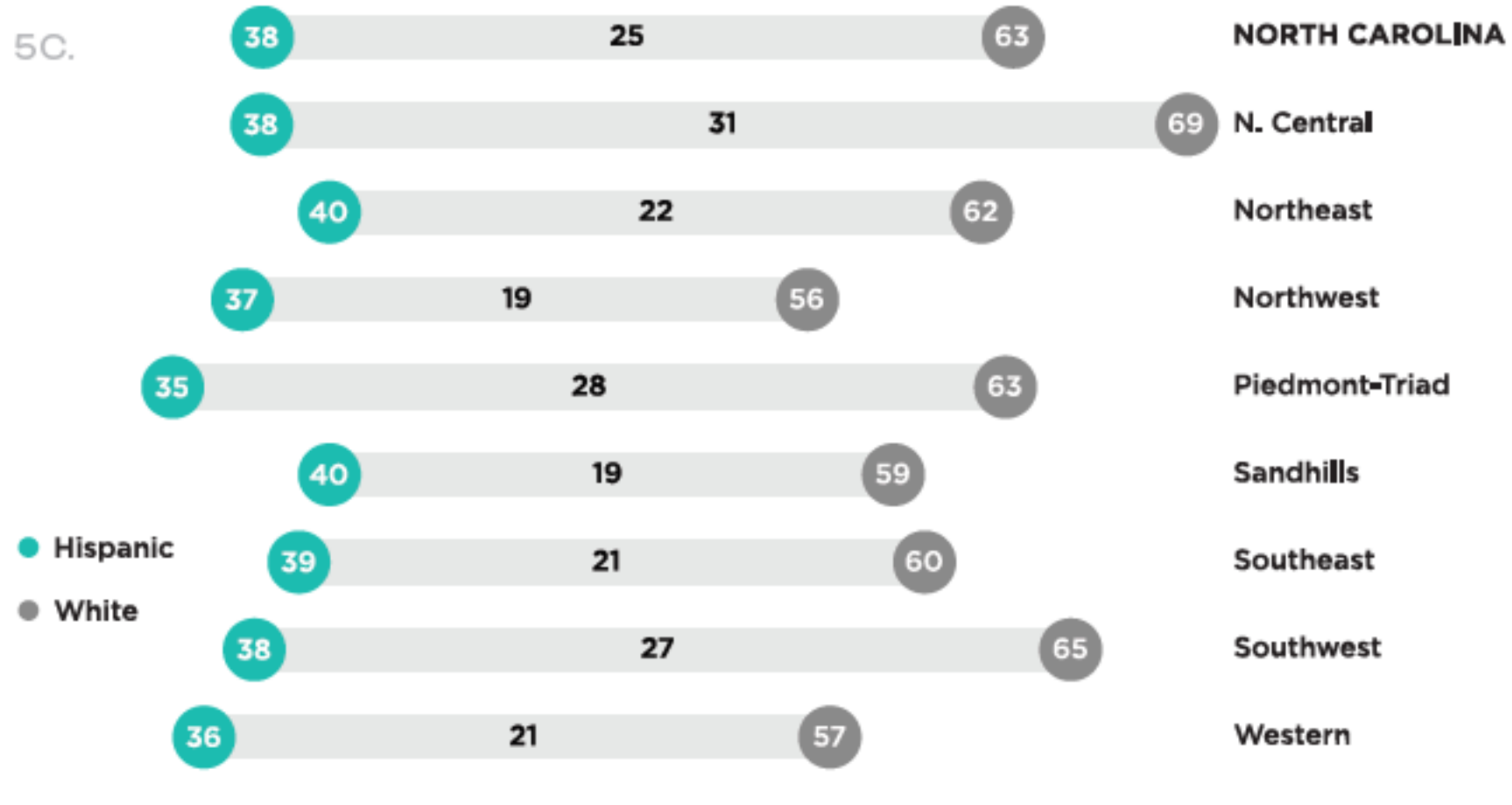


FIG. 5: ON-TIME COLLEGE ENROLLMENT RATES FOR FEMALE, MALE, BLACK, WHITE & HISPANIC HIGH SCHOOL GRADUATES, BY PROSPERITY ZONE (2009-2016)

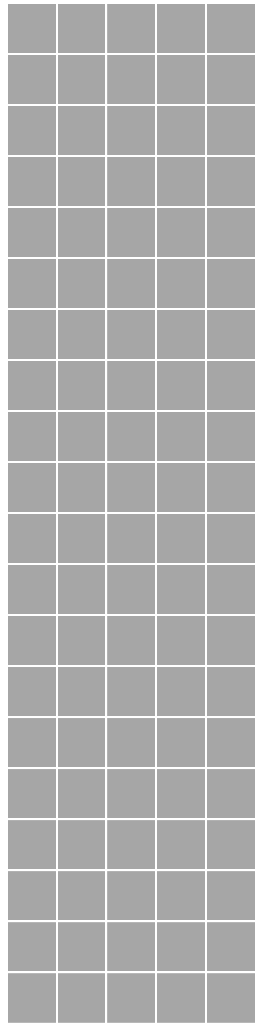


## On-Time Completion

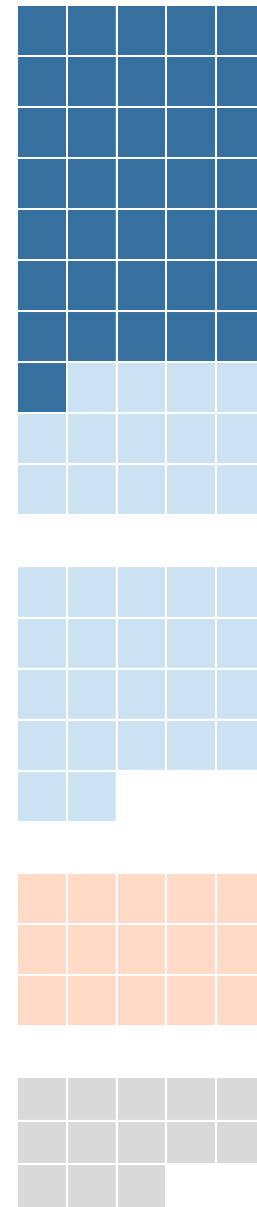
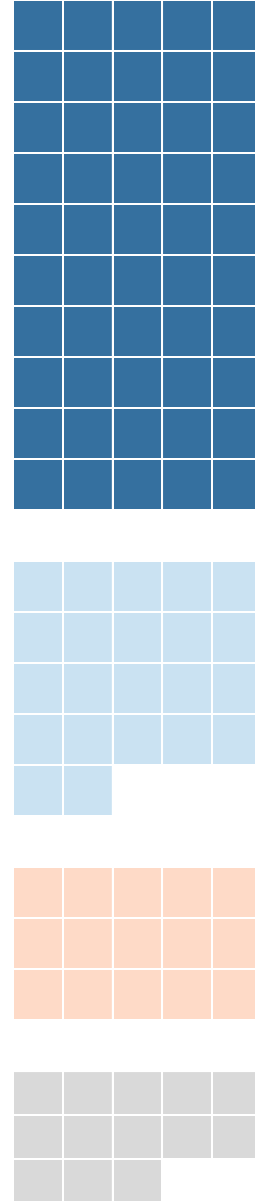
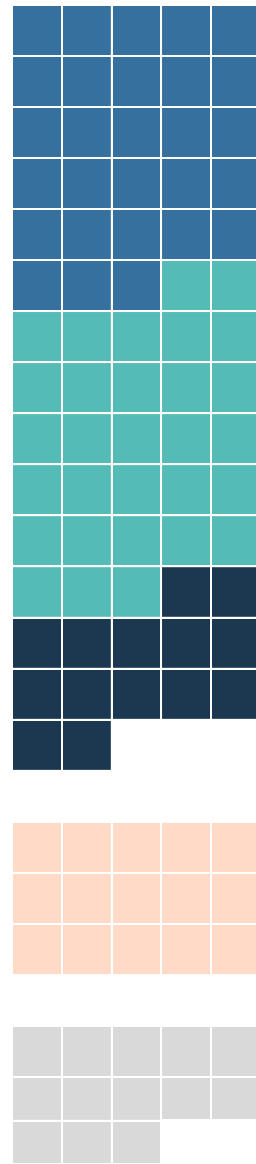
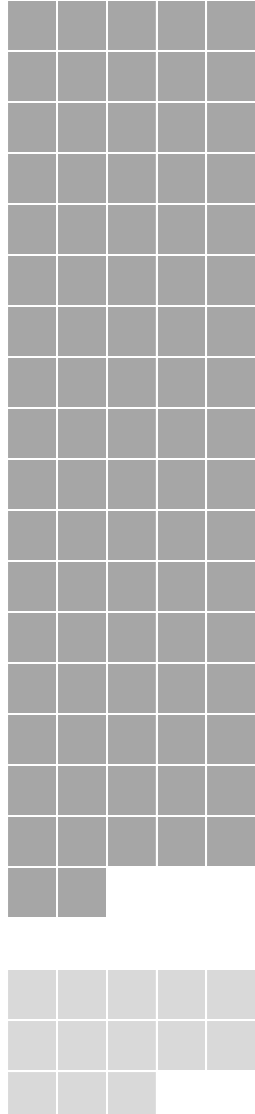
## Spring Intent

## Fall Enrollment

## Persistence



**100**  
9th graders



**14**  
don't return to  
same institution  
second year

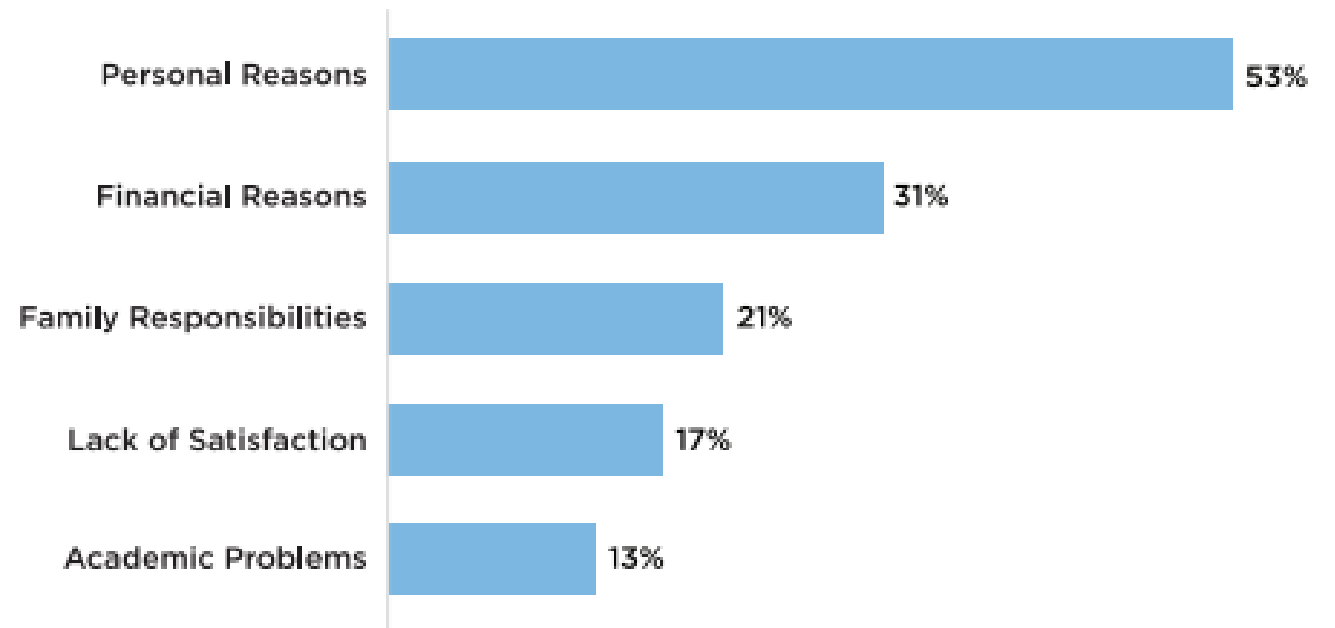


## 3 Types of Non-Retained Students

Among those who started at a four-year institution and did not return to initial institution:

- **Underprepared Students** – most likely to leave entirely or transfer from four-year to two-year
- **Affordability Issues** – most likely to transfer to more affordable institution
- **“Unexpected Underperformers”** – outcomes more idiosyncratic and harder to predict

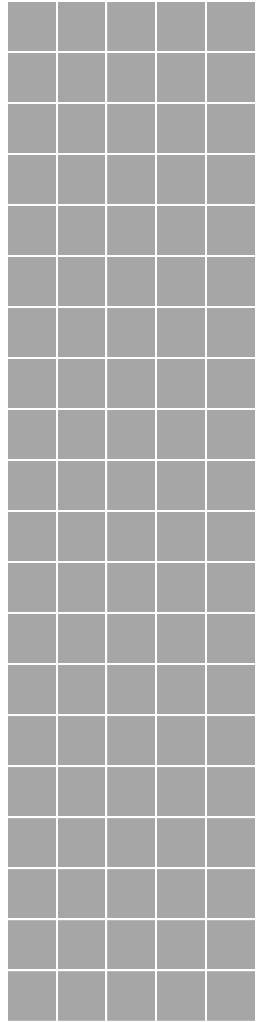
FIG. 8: TOP 5 REASONS CITED FOR LEAVING POSTSECONDARY AMONG STUDENTS WHO LEFT AFTER THE FIRST YEAR (2003-04)



*Note: Students could report more than one reason.*

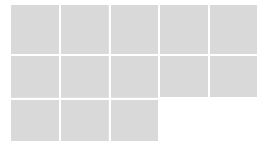
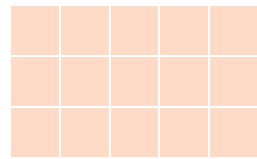
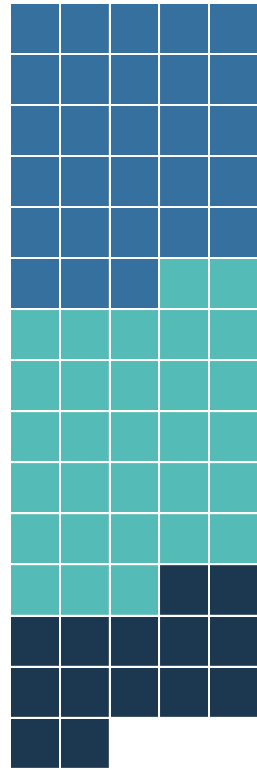
*Source: Ross et al. (2012)*

### On-Time Completion

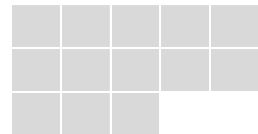
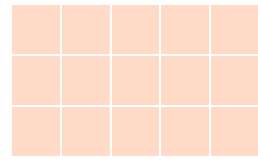
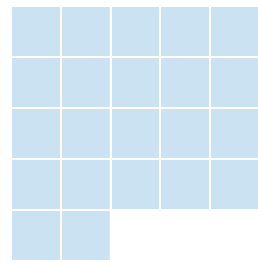
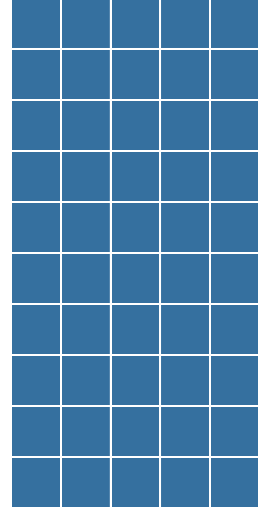


**100**  
9th graders

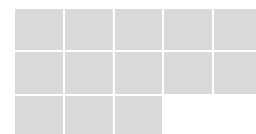
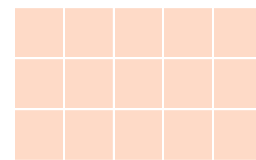
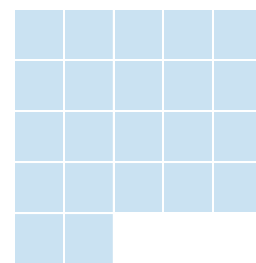
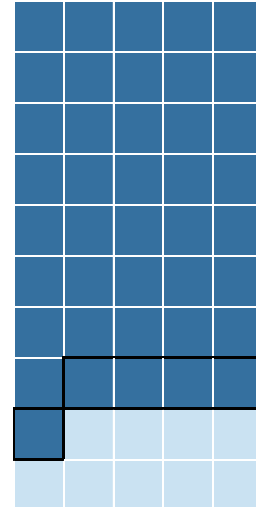
### Spring Intent



### Fall Enrollment

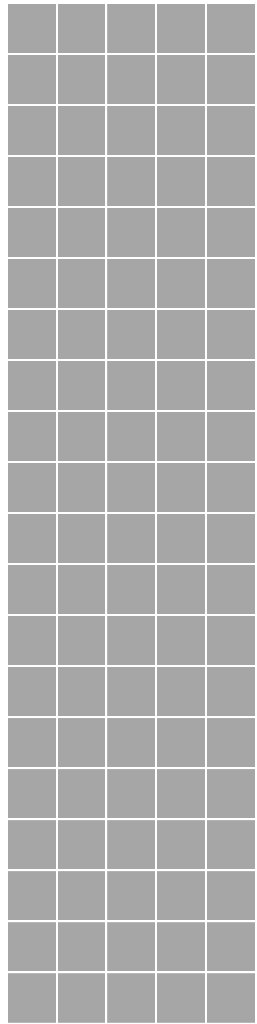


### Persistence



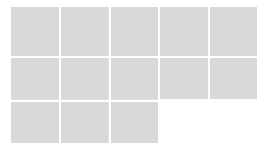
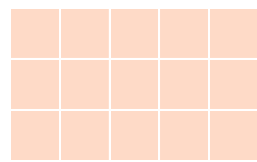
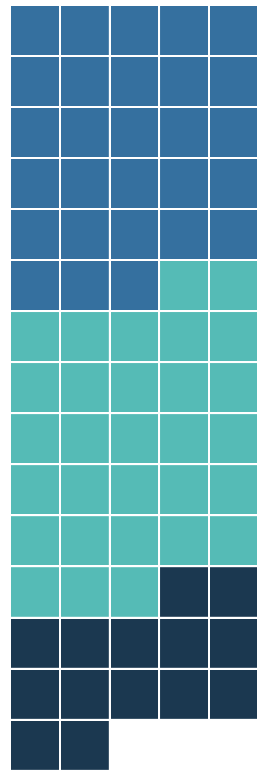
**5**  
continue  
education at  
another institution

### On-Time Completion

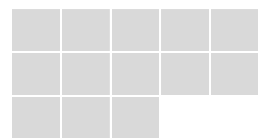
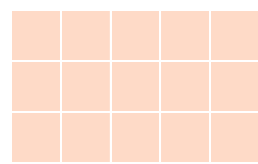
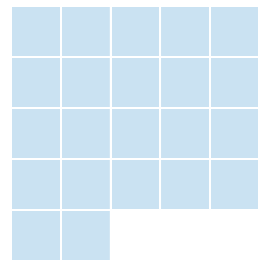
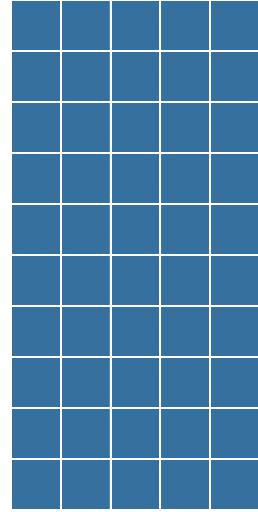


**100**  
9th graders

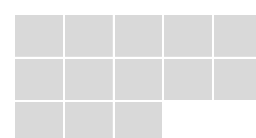
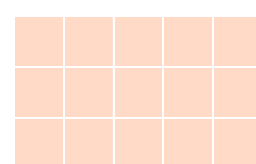
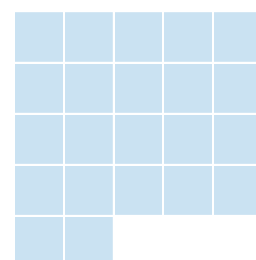
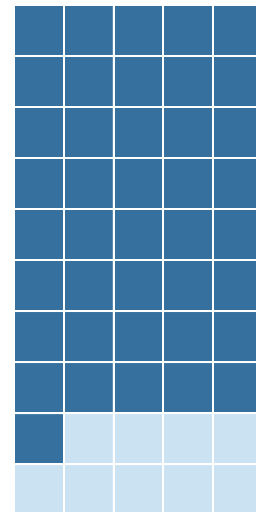
### Spring Intent



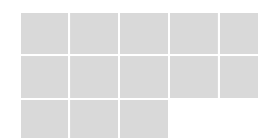
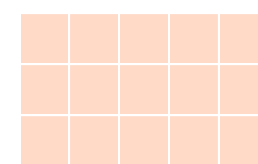
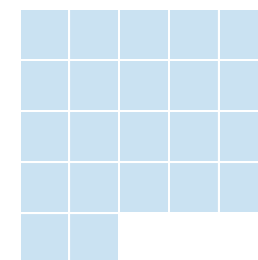
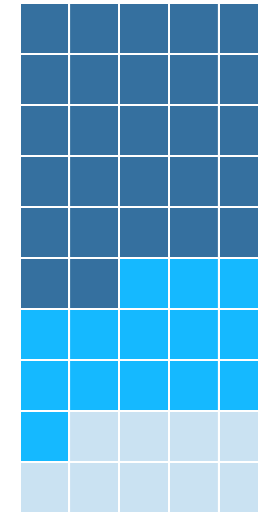
### Fall Enrollment



### Persistence



### Completion (6-Year)



**14**  
don't complete in  
150% of normal time

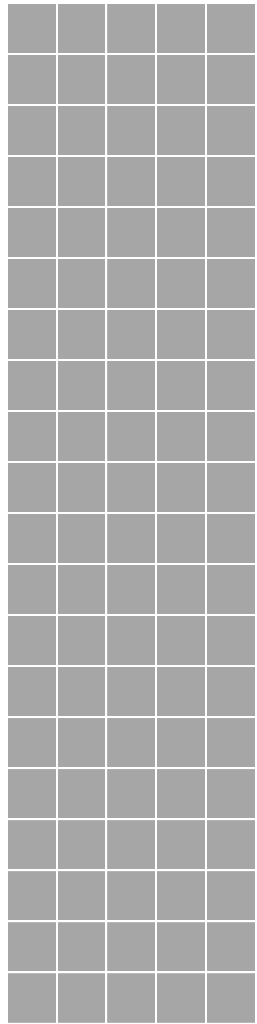
### On-Time Completion

### Spring Intent

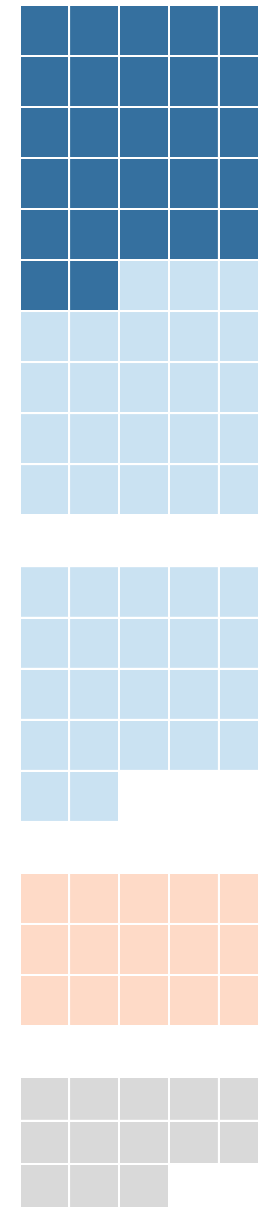
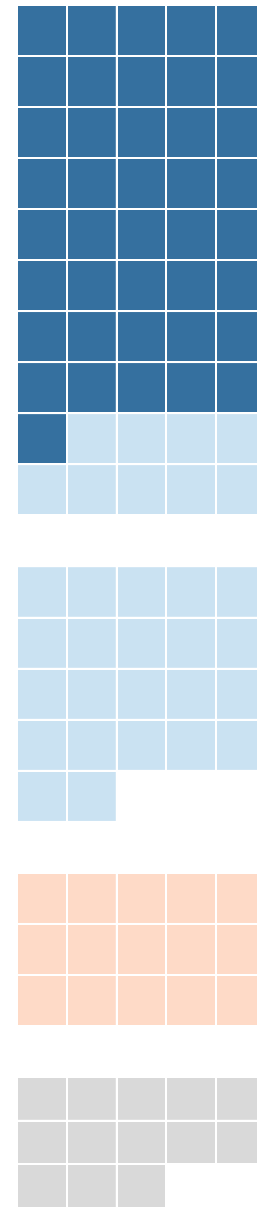
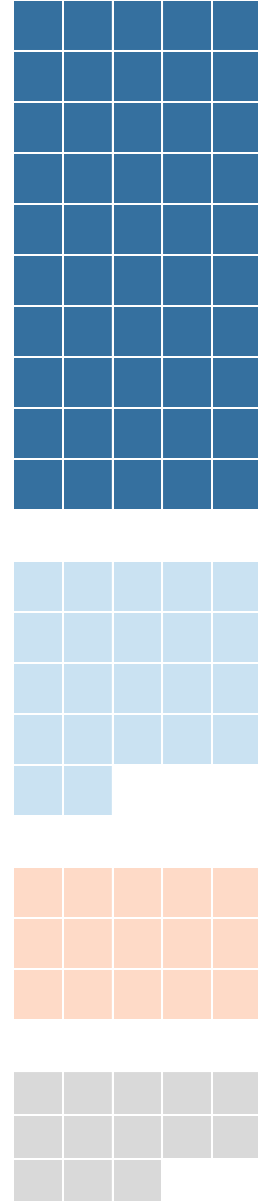
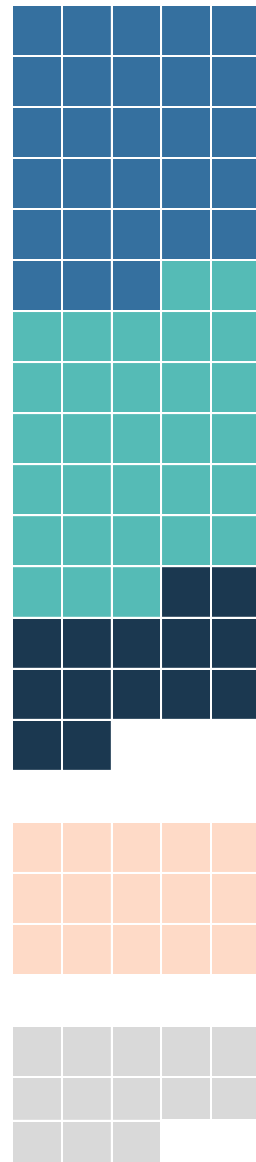
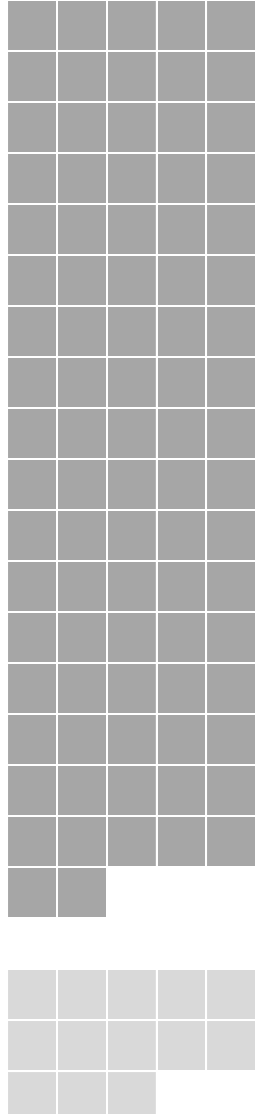
### Fall Enrollment

### Persistence

### Completion (6-Year)



**100**  
9th graders



**27**  
graduate within  
150% of normal time

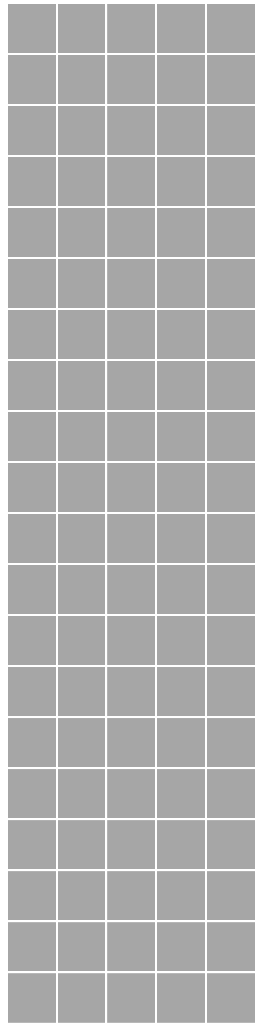
### On-Time Completion

### Spring Intent

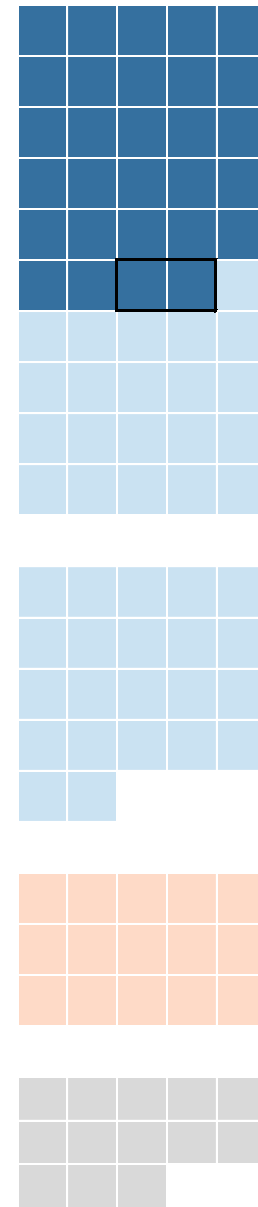
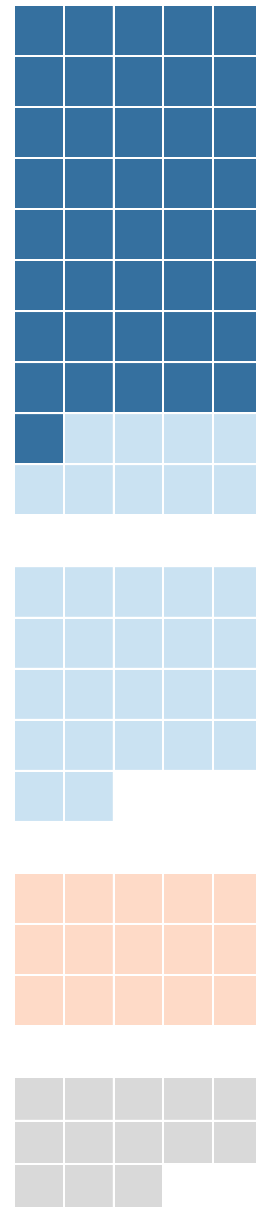
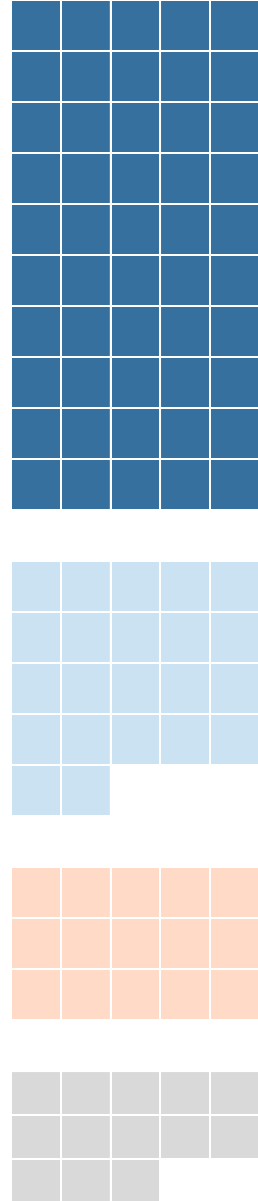
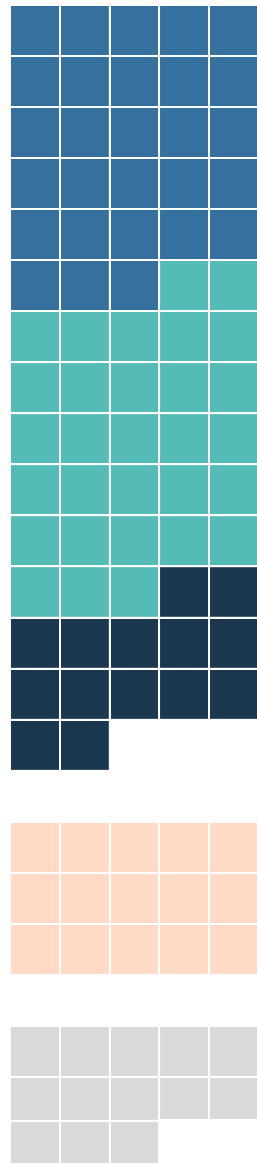
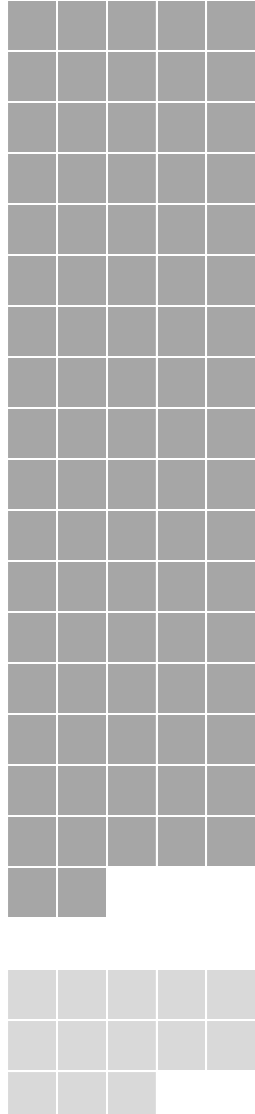
### Fall Enrollment

### Persistence

### Completion (6-Year)



**100**  
9th graders



**+2**  
NCCC graduates in  
3-6 years

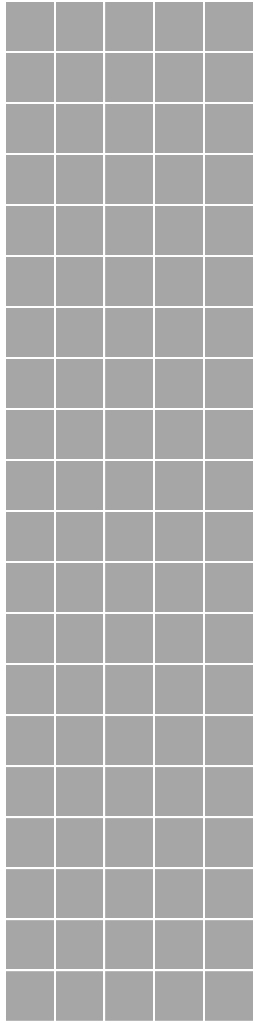
### On-Time Completion

### Spring Intent

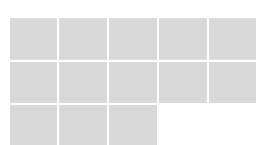
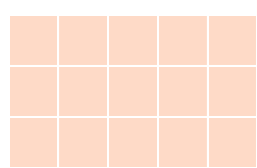
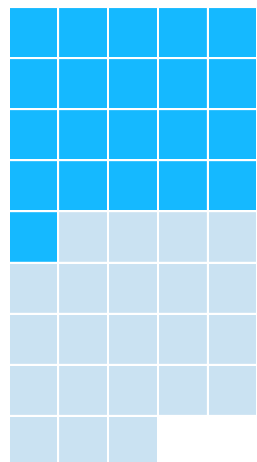
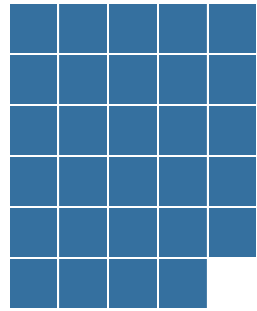
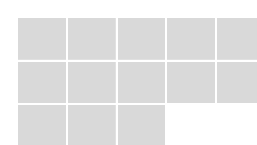
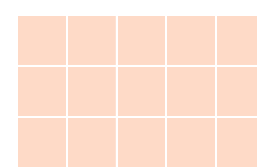
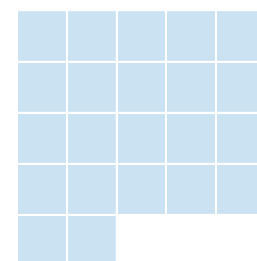
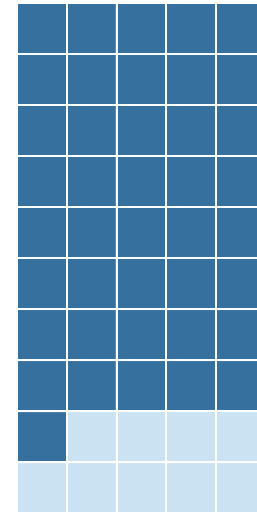
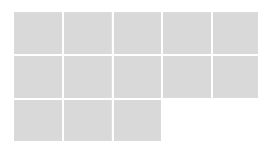
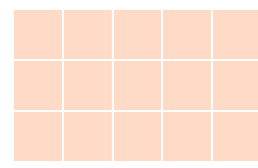
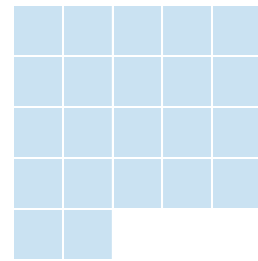
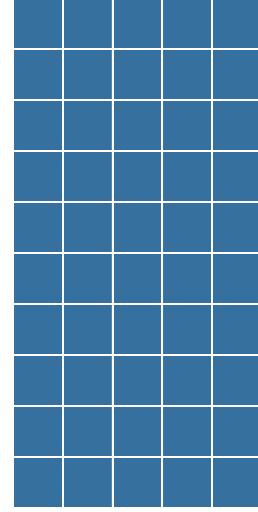
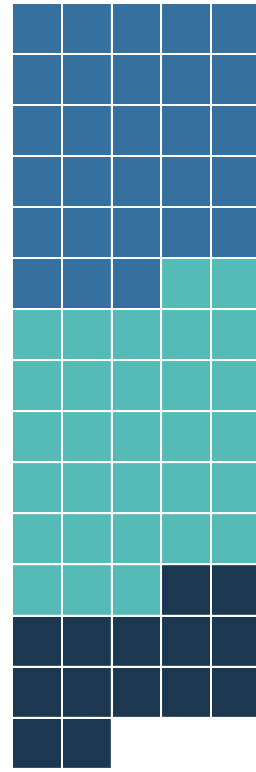
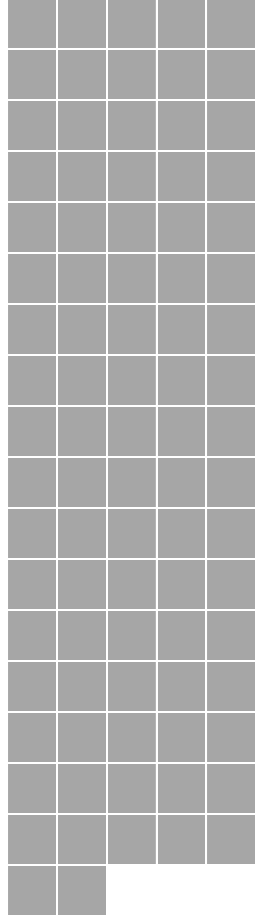
### Fall Enrollment

### Persistence

### Completion (6-Year)



**100**  
9th graders



**29**  
postsecondary  
degrees or  
credentials

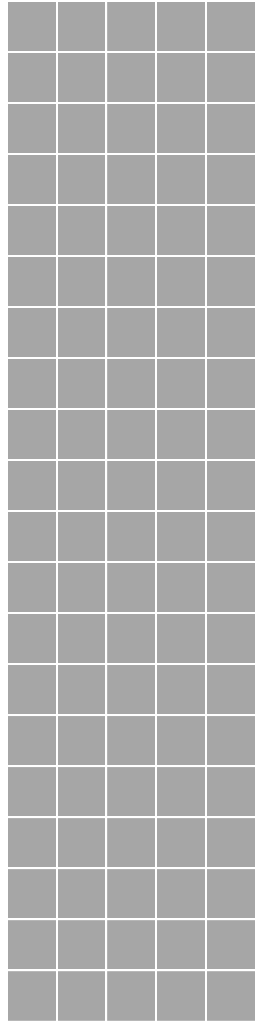
### On-Time Completion

### Spring Intent

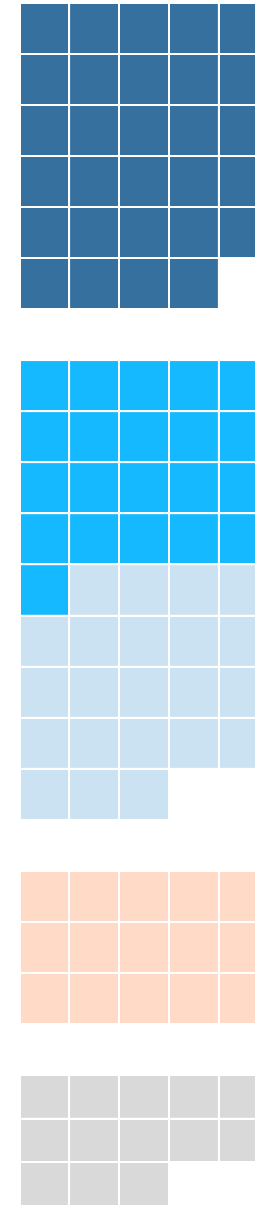
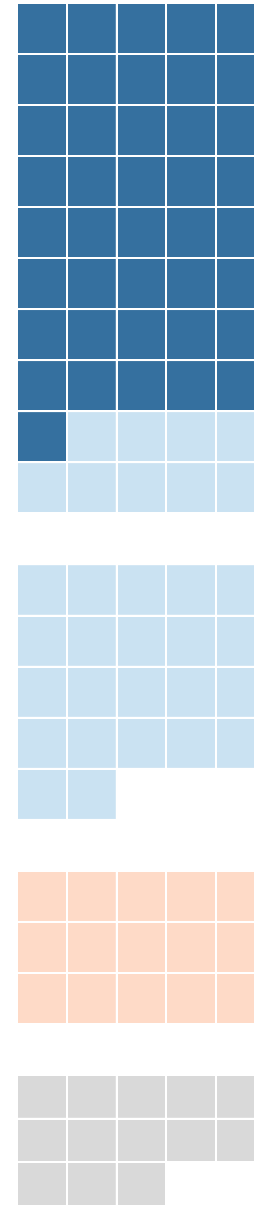
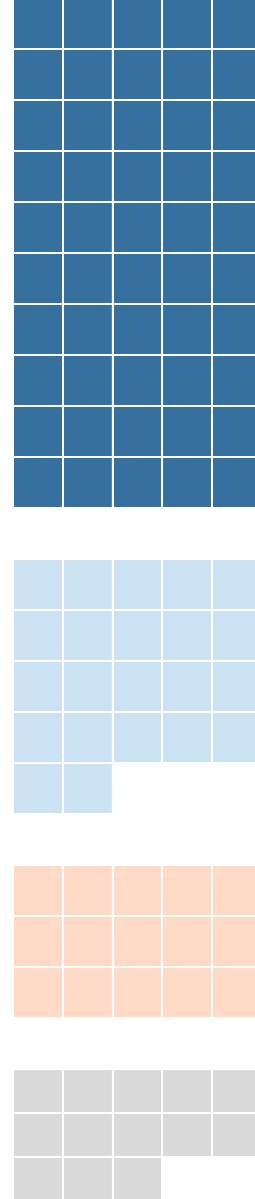
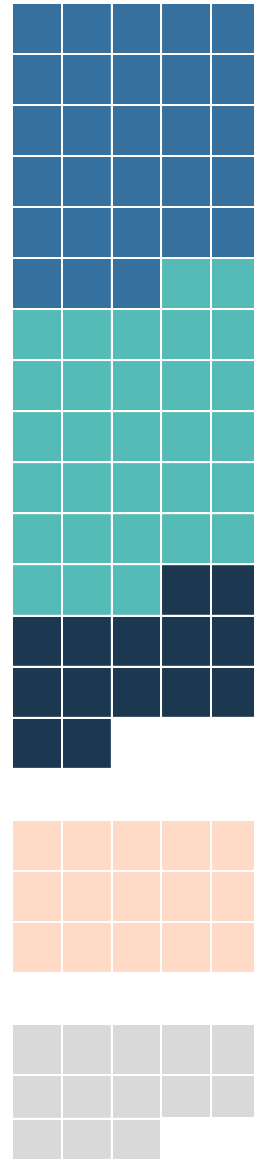
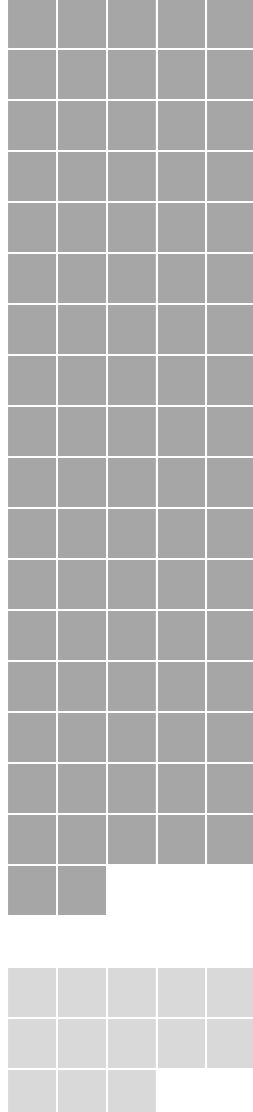
### Fall Enrollment

### Persistence

### Completion (6-Year)



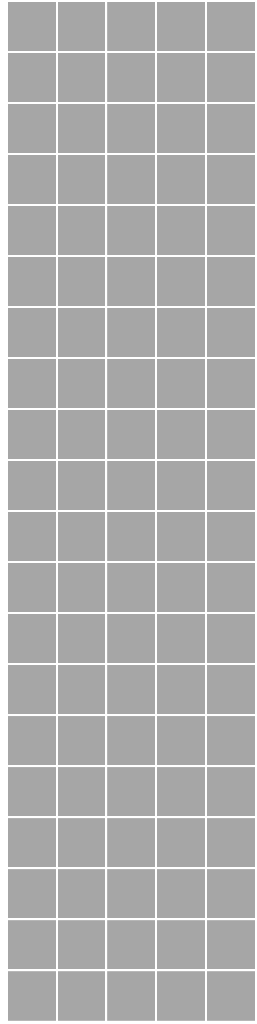
**100**  
9th graders



**29**  
postsecondary  
degrees or  
credentials

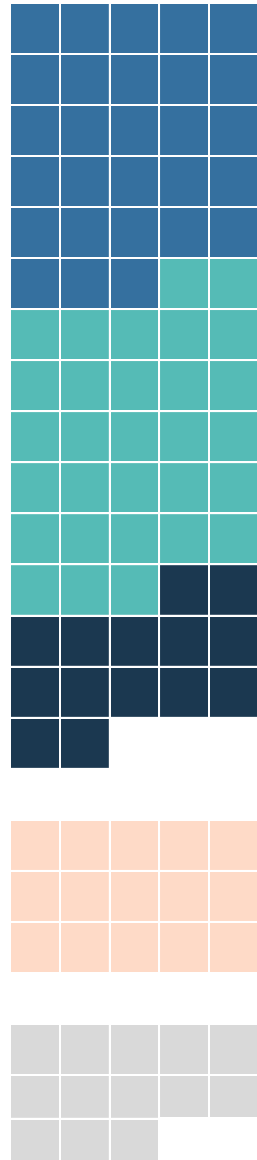
**21**  
some college, no  
degree

### On-Time Completion

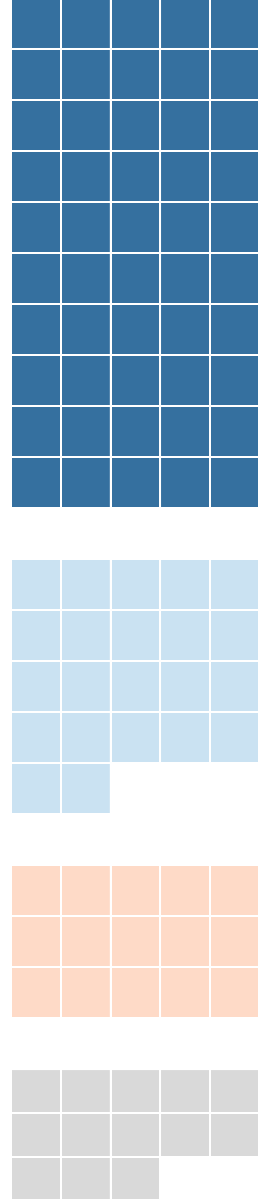


**100**  
9th graders

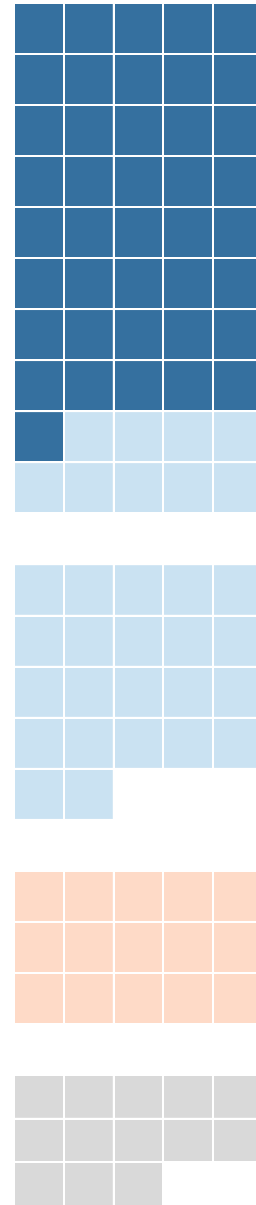
### Spring Intent



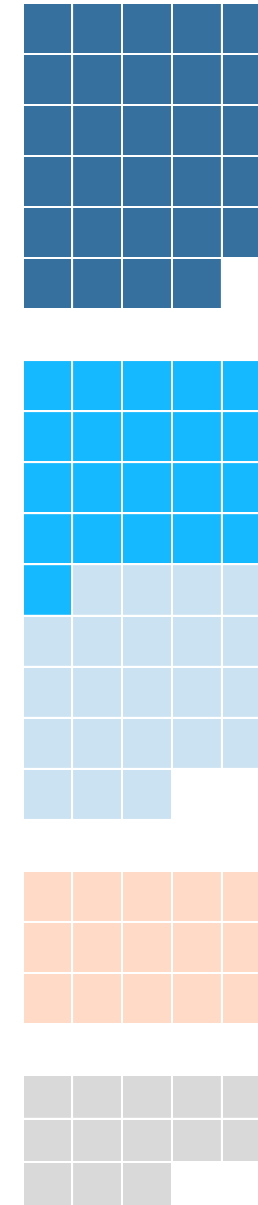
### Fall Enrollment



### Persistence



### Completion (6-Year)



**29**

postsecondary degrees or credentials

**21**

some college, no degree

**22**

college intent, no immediate transition



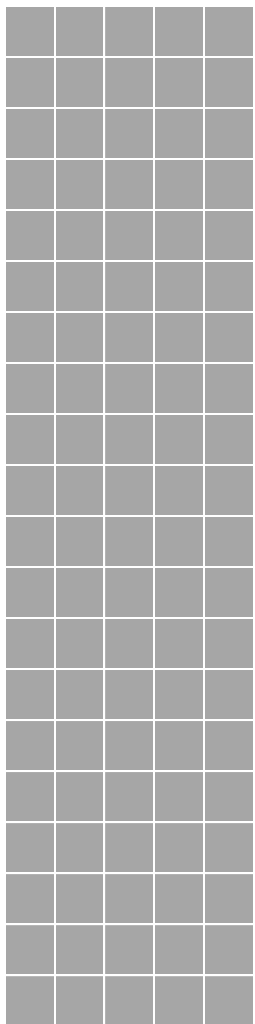
### On-Time Completion

### Spring Intent

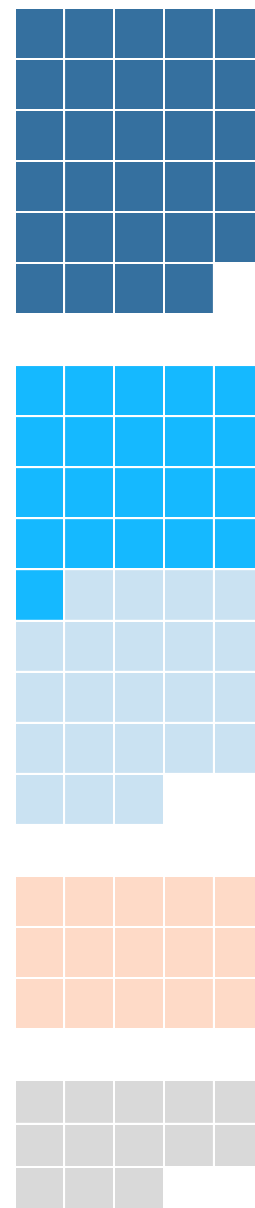
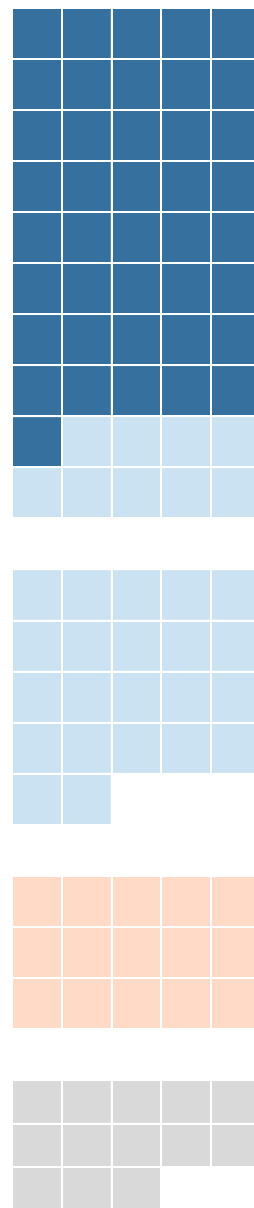
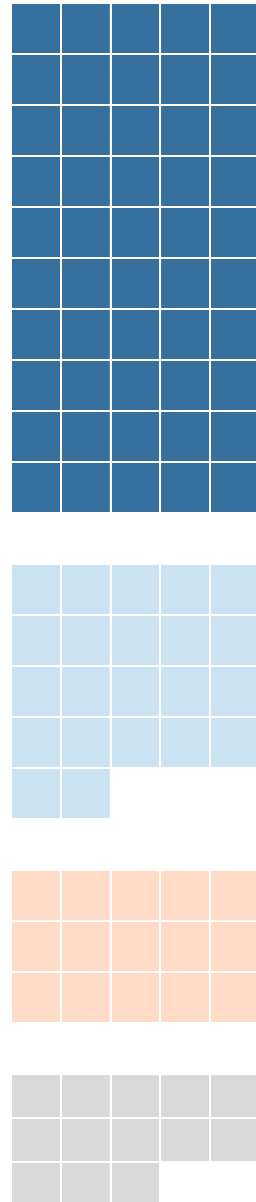
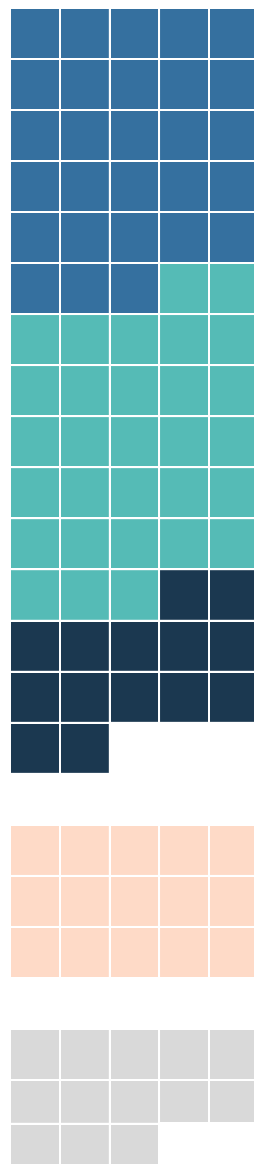
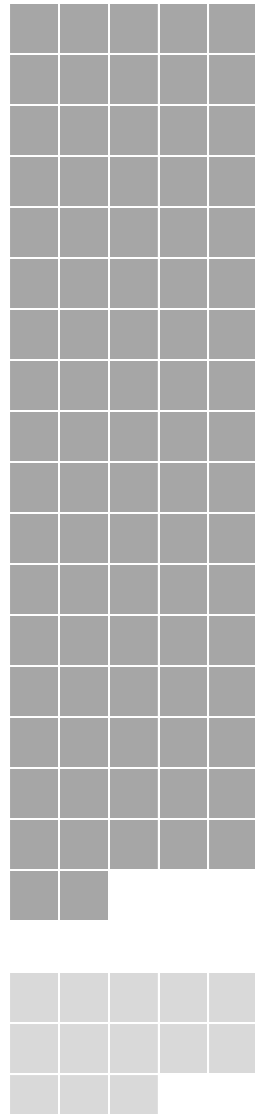
### Fall Enrollment

### Persistence

### Completion (6-Year)



**100**  
9th graders



**29**

postsecondary degrees or credentials

**21**

some college, no degree

**22**

college intent, no immediate transition

**15**

work or military

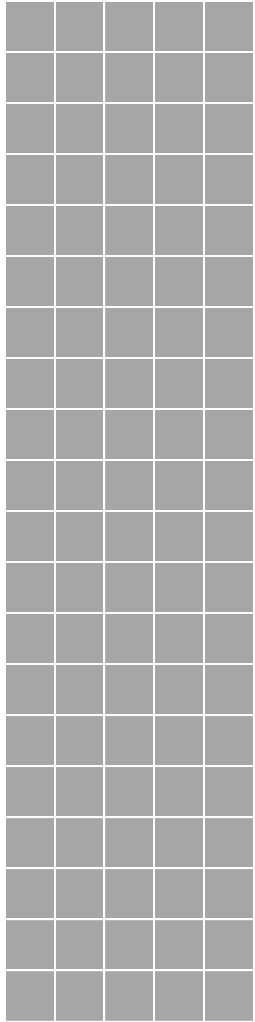
**On-Time  
Completion**

**Spring  
Intent**

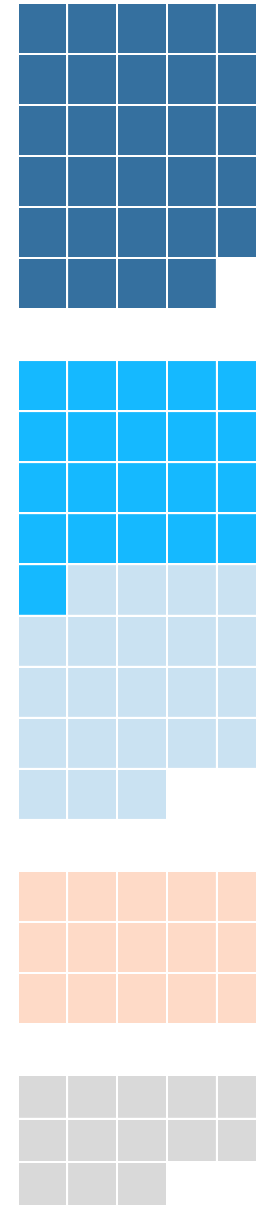
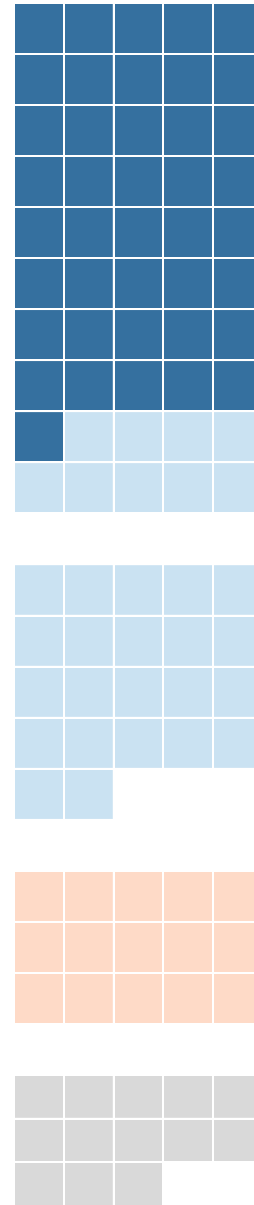
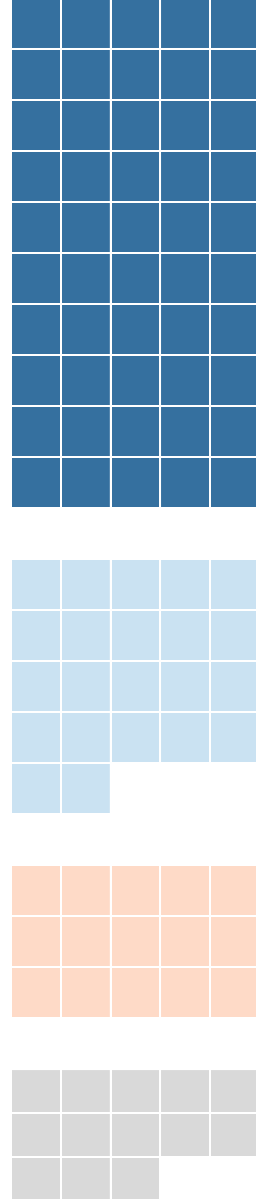
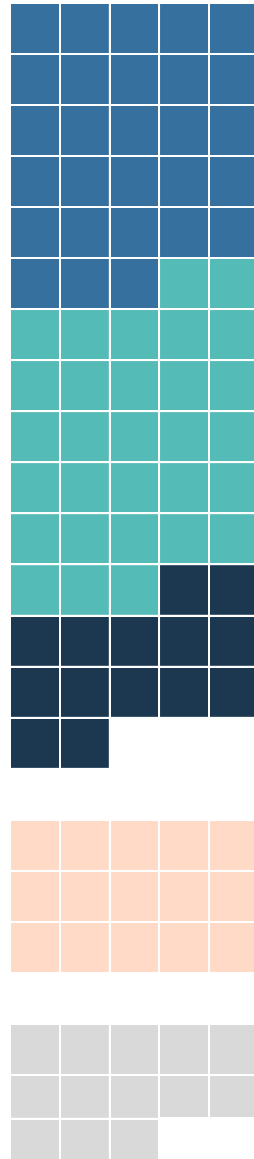
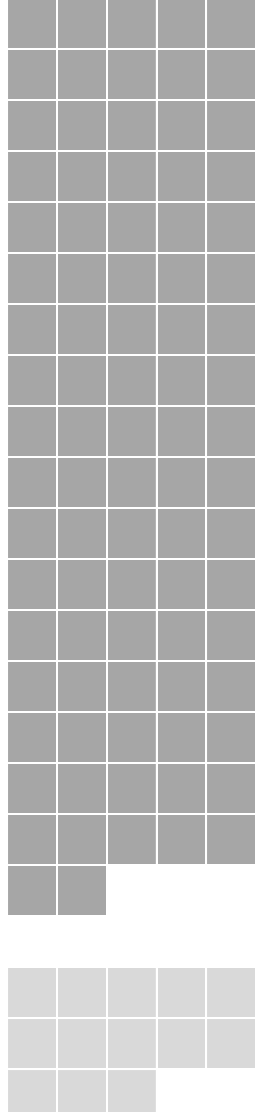
**Fall  
Enrollment**

**Persistence**

**Completion  
(6-Year)**



**100**  
9th graders



**29**  
postsecondary  
degrees or  
credentials

**21**  
some college, no  
degree

**22**  
college intent, no  
immediate transition

**15**  
work or military

**13**  
dropout or delay

**6-year outcomes**

FIG. 2: **SIX-YEAR POSTSECONDARY OUTCOMES**  
(2009-2011 NC High School Graduates)



FIG. 2: **SIX-YEAR POSTSECONDARY OUTCOMES**  
(2009-2011 NC High School Graduates)

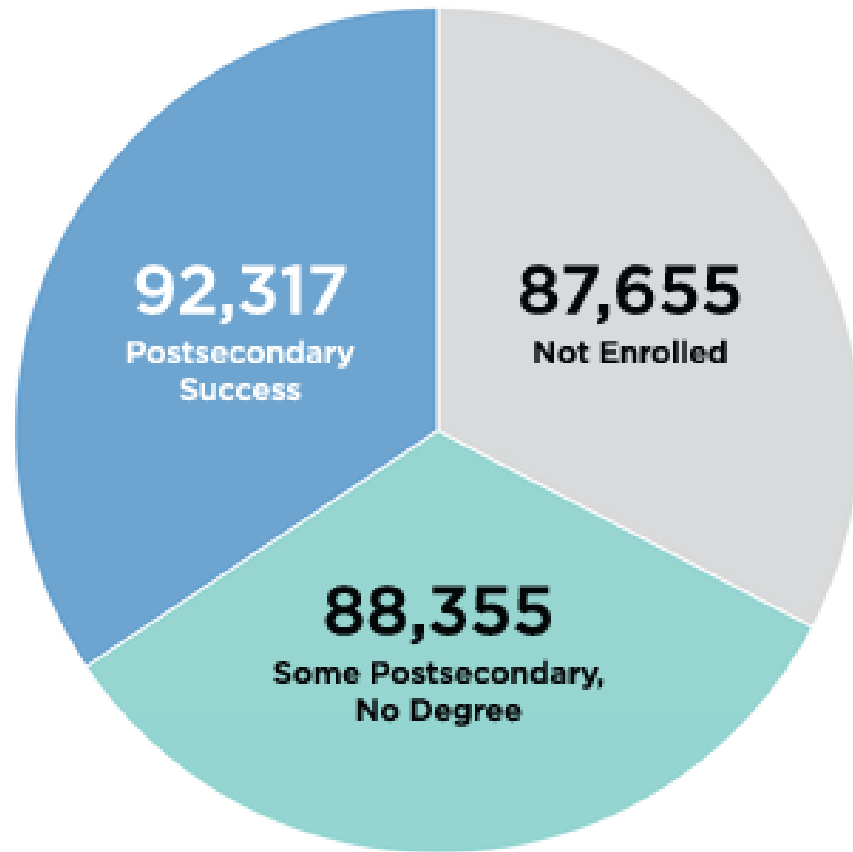


FIG. 3: **ACADEMIC AND ECONOMIC CHARACTERISTICS BY POSTSECONDARY OUTCOME**  
(2009-2011 NC High School Graduates)

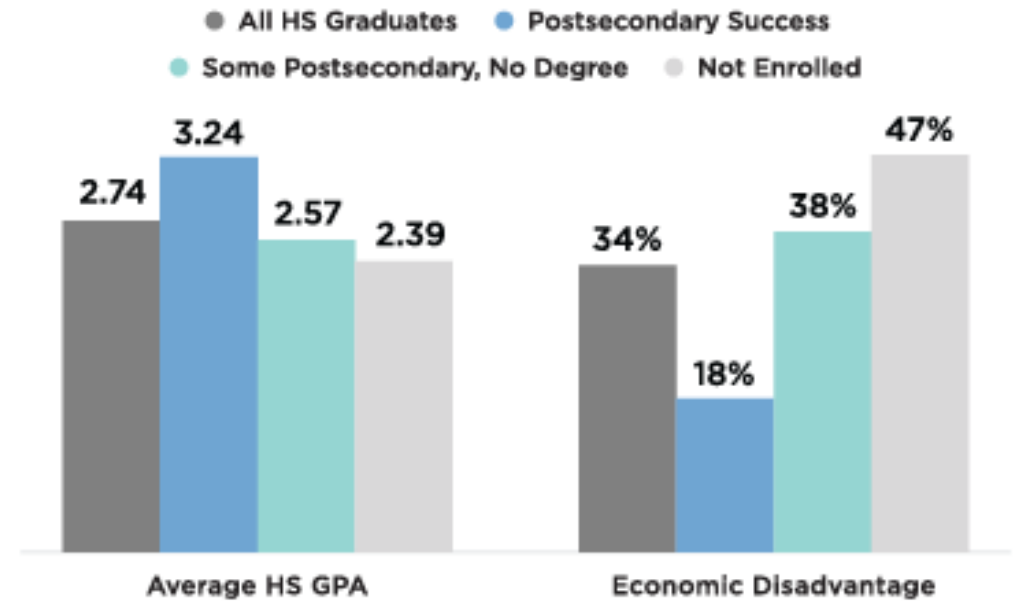


FIG. 1: **POSTSECONDARY OUTCOMES**  
(2009-2011 NC High School Graduates)

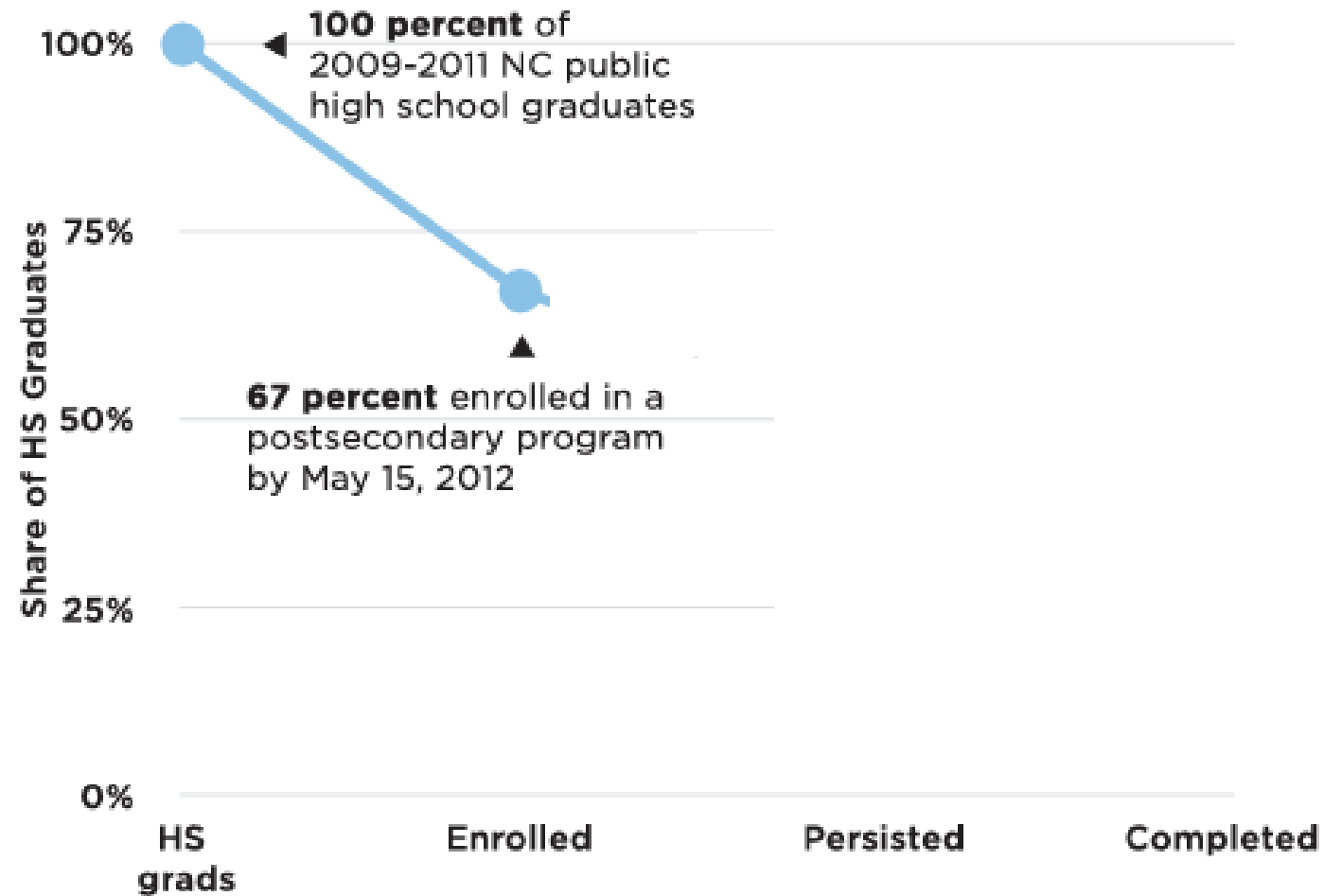


FIG. 1: **POSTSECONDARY OUTCOMES**  
(2009-2011 NC High School Graduates)

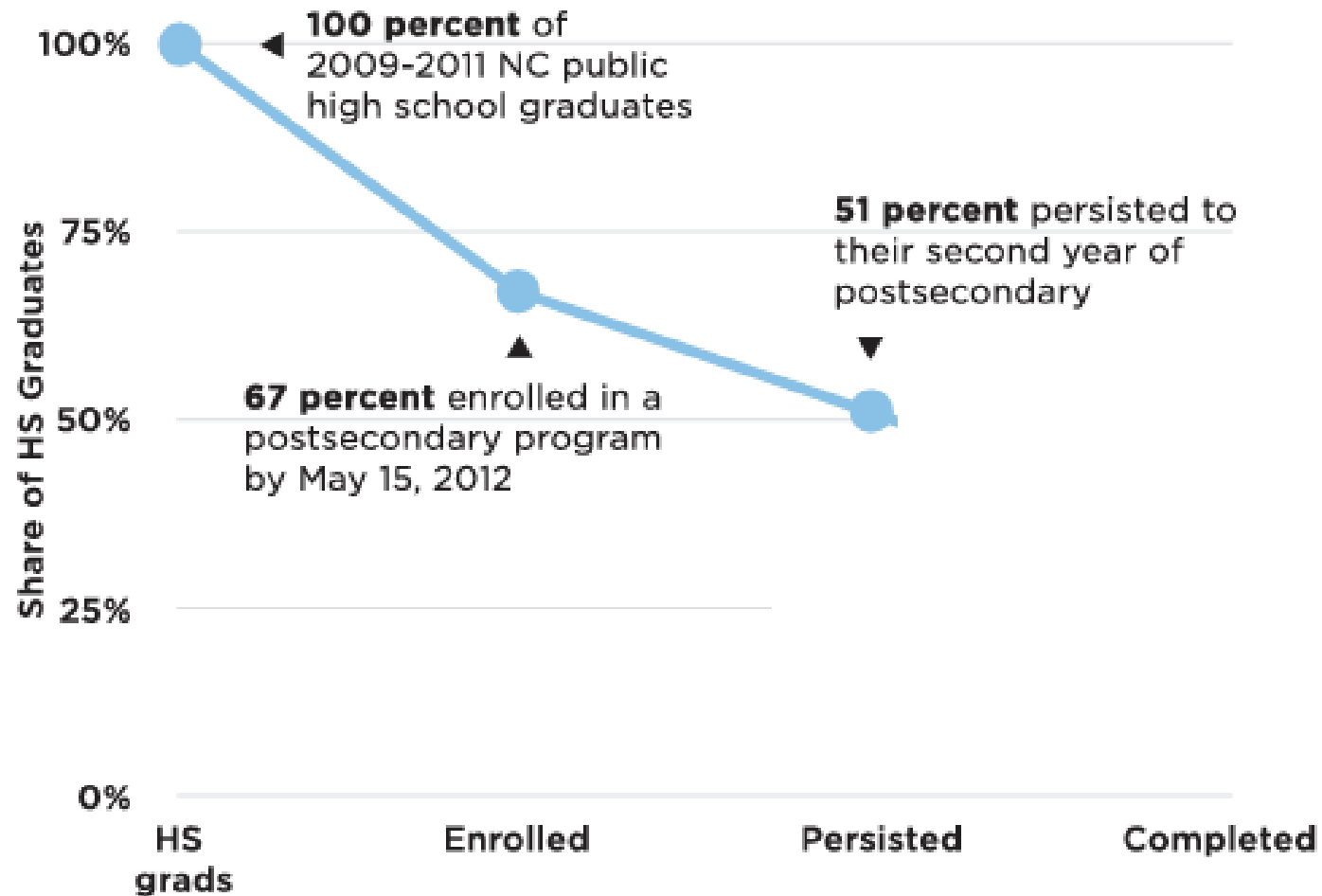


FIG. 1: **POSTSECONDARY OUTCOMES**  
(2009-2011 NC High School Graduates)

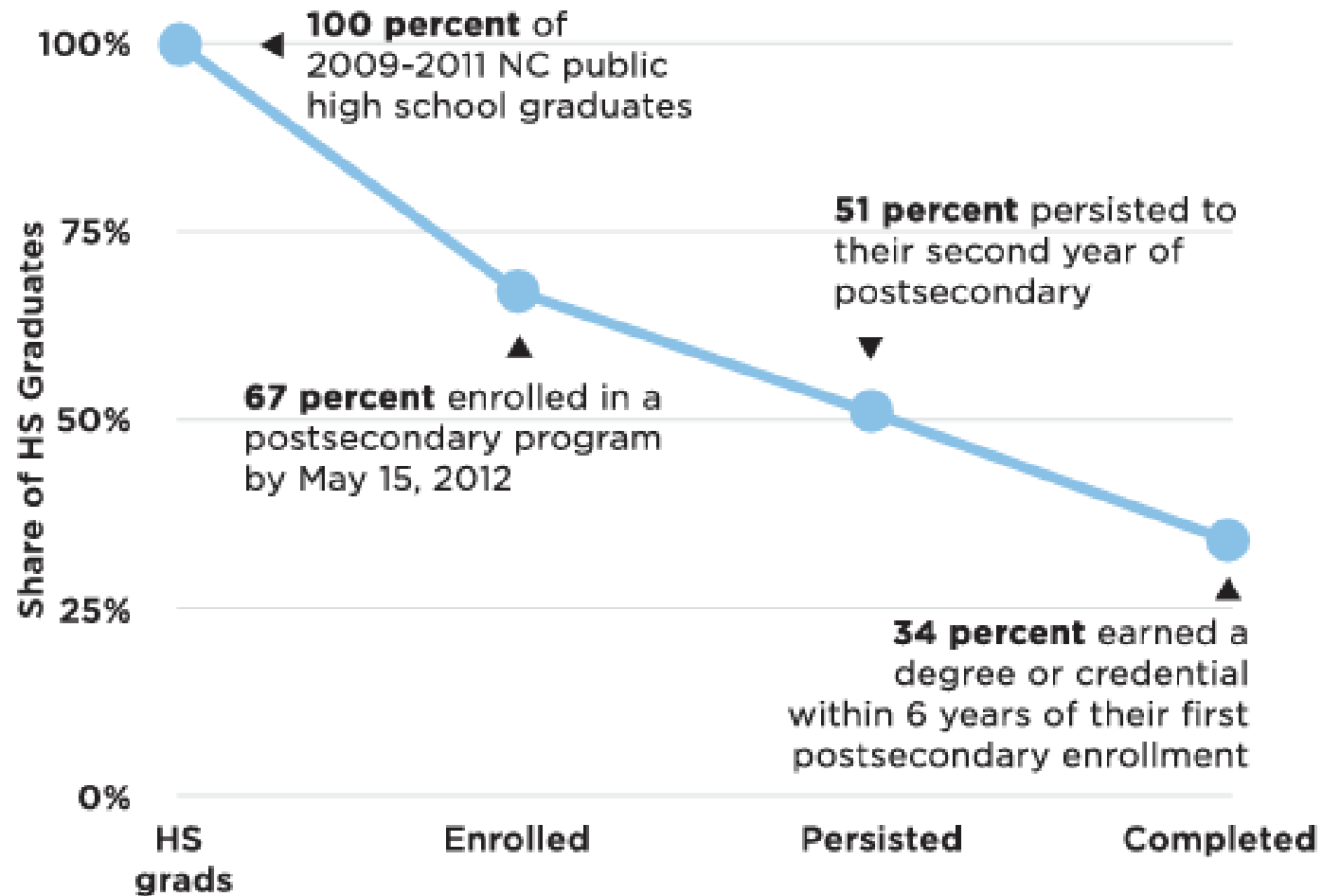




FIG. 5: **POSTSECONDARY OUTCOMES BY RACE/ETHNICITY** (2009-2011 NC High School Graduates)

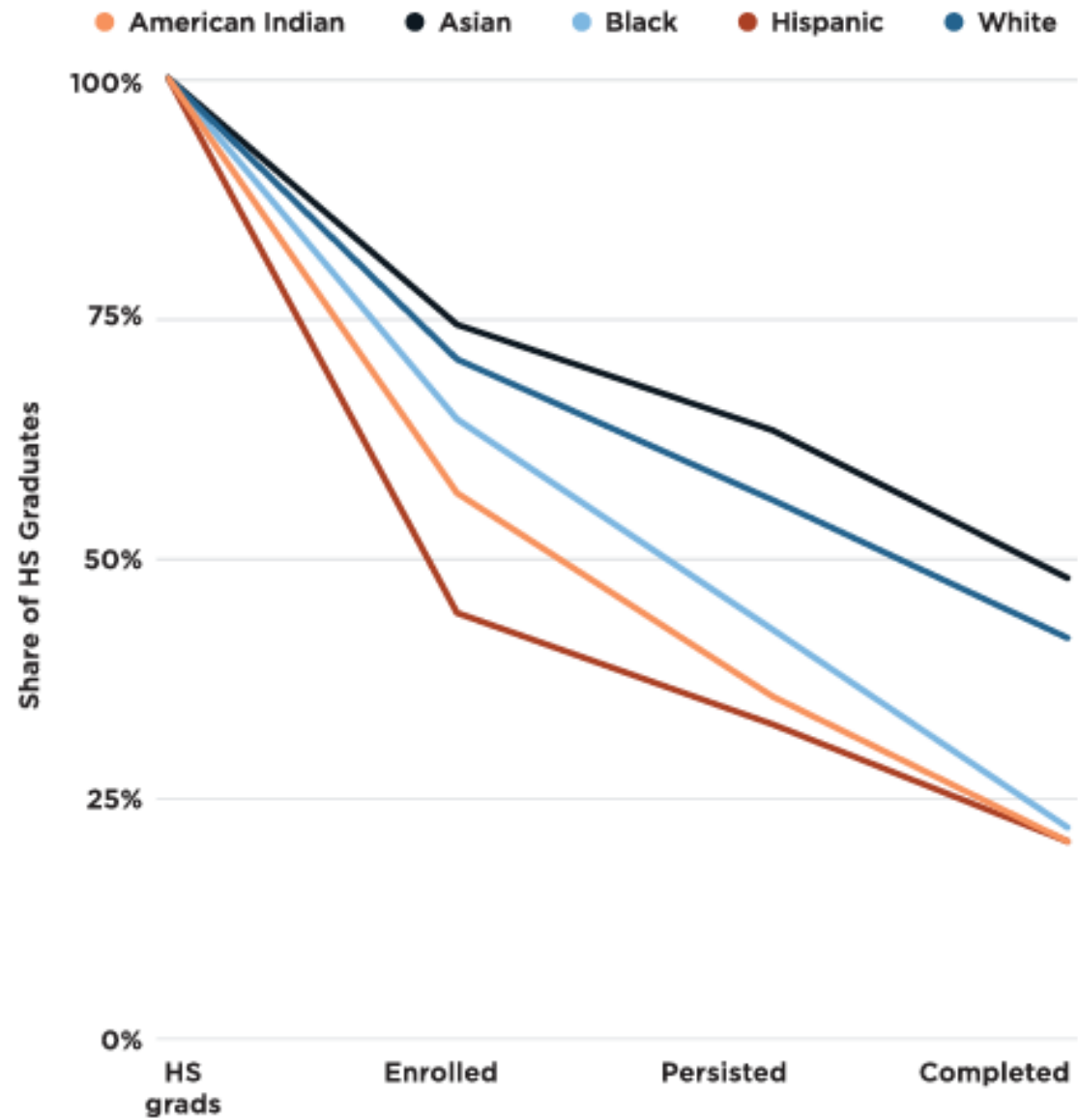


FIG. 5: **POSTSECONDARY OUTCOMES BY RACE/ETHNICITY** (2009-2011 NC High School Graduates)

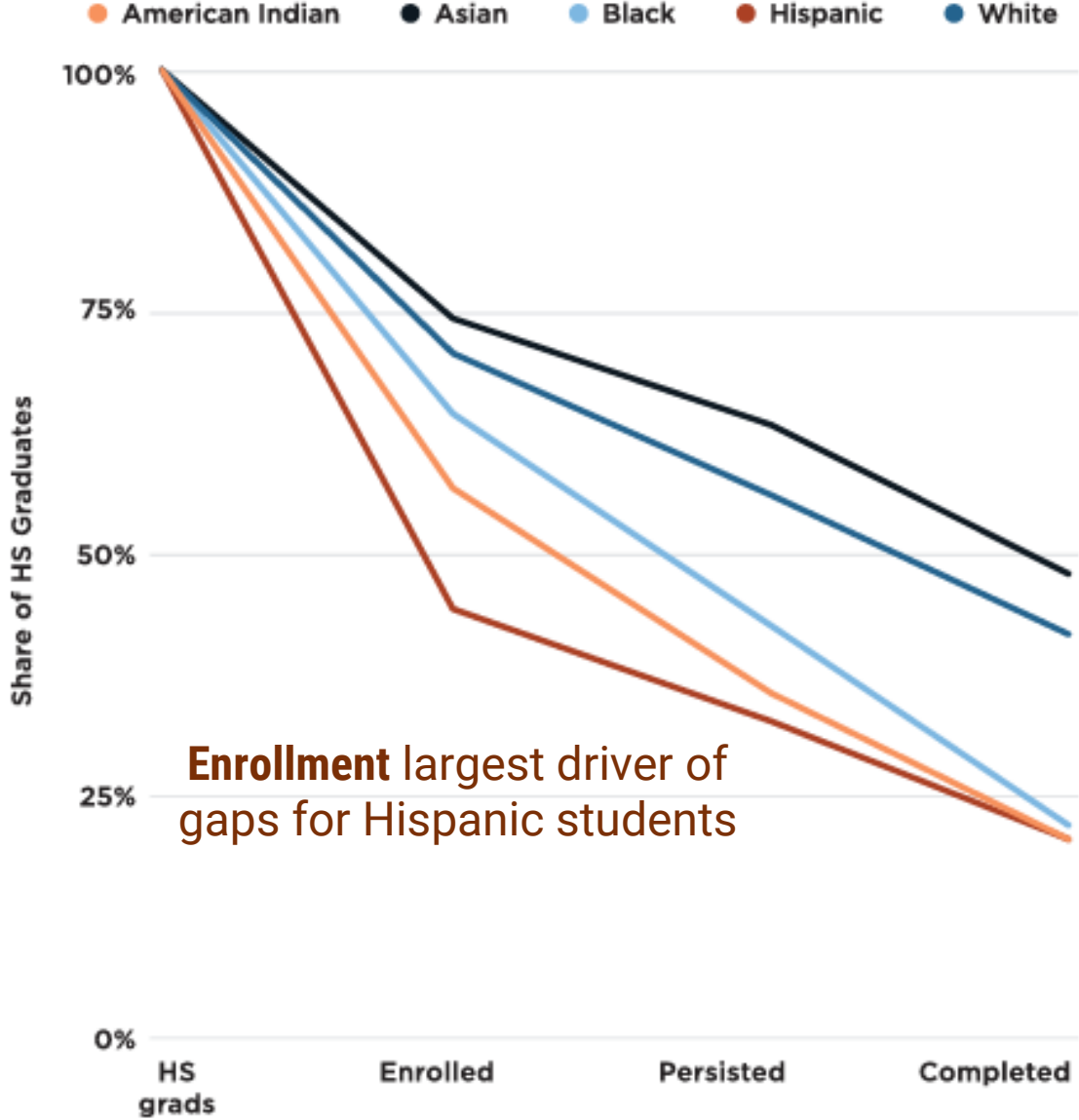


FIG. 5: **POSTSECONDARY OUTCOMES BY RACE/ETHNICITY** (2009-2011 NC High School Graduates)

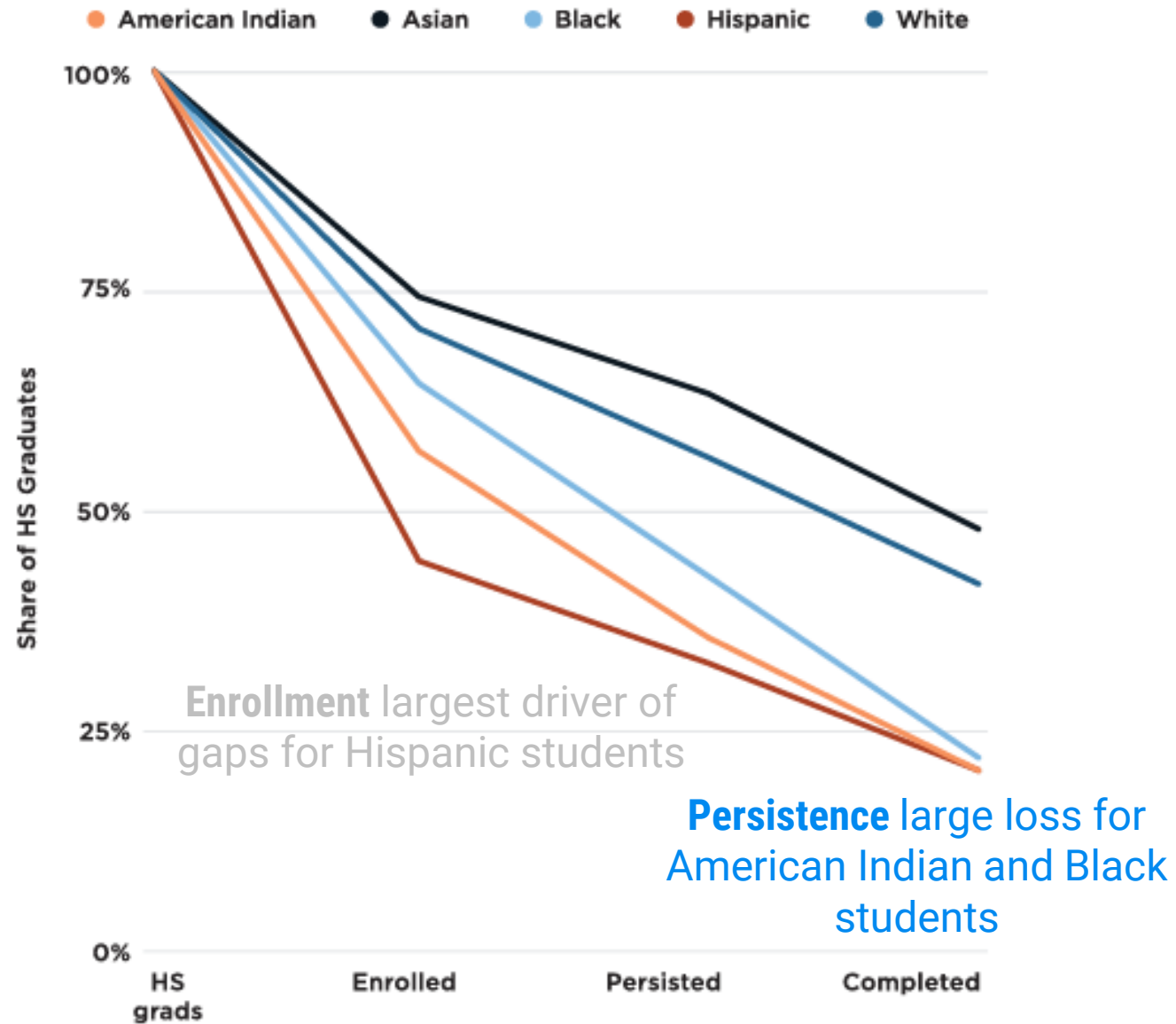
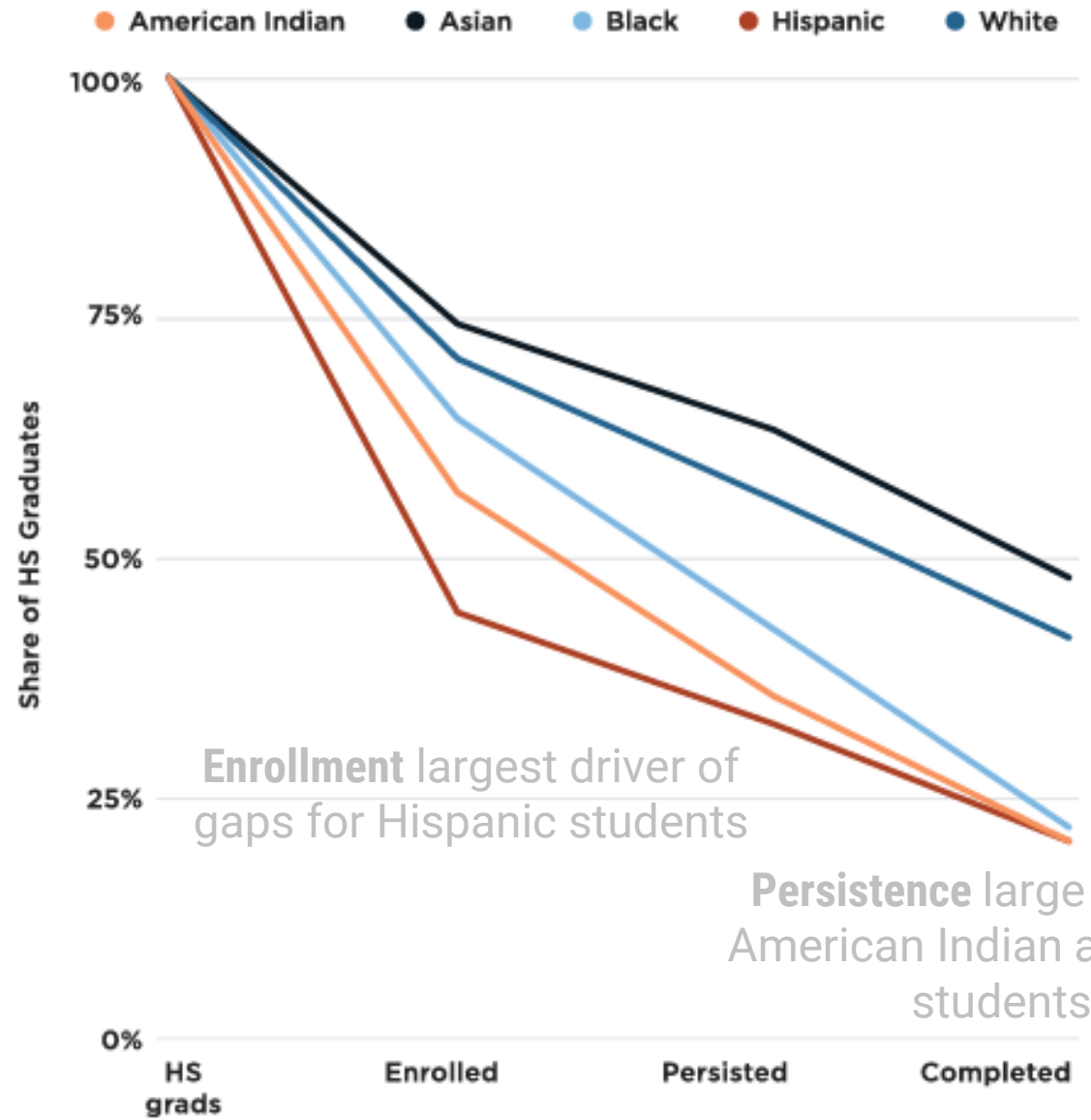


FIG. 5: **POSTSECONDARY OUTCOMES BY RACE/ETHNICITY** (2009-2011 NC High School Graduates)



Enrollment largest driver of gaps for Hispanic students

Persistence large loss for American Indian and Black students

Graduation equally large driver of gaps for Black students

# Major Findings

- “Traditional” college pathway most common way to earn a degree (40% of postsecondary success outcome group)
  - However, this is just:
    - 20% of students who began postsecondary
    - 14% of all HS graduates
- Most students follow idiosyncratic pathways through postsecondary
- Pathways to associate or credential very different from BA/BS
- Pathways consistently point to barriers of academic readiness and economic capacity
- Multiple points at which students exit the postsecondary pipeline highlight many opportunities for intervention

# About our data

- 757,160 North Carolina high school graduates (2009-2016 graduating classes)
- From **NC DPI/EPIC**:
  - Demographic characteristics
  - Selected academic characteristics
  - School characteristics
- From **National Student Clearinghouse**:
  - Data span July 1, 2009 to May 15, 2018
  - 4,031,542 unique enrollment terms for 550,309 students
  - 243,520 graduation records for degrees and credentials

## EXECUTIVE SUMMARY

Individual educational attainment and barriers to attainment are not readily captured by a single indicator. Educational attainment is a process with multiple key steps. After completing high school, individuals must enroll in college and persist in their enrollment until degree completion. In a series of four data briefs, we use National Student Clearinghouse data to better understand key transition points and the college-going behaviors of North Carolina public high school graduates from 2009-2016. Specifically, we will examine:

CURRENT

1. **Access:** How many students are going to college?
2. **Persistence:** How many students are still enrolled in postsecondary after their first year?
3. **Success:** How many students persist in their postsecondary enrollments to successfully complete a degree or credential?
4. **Postsecondary Pathways and Barriers to Opportunity:** What are the most common pathways through postsecondary? What are the potential barriers to success suggested by pathways that end in stopout or dropout?

### About the data

Of the 757,160 high school graduate records submitted to the NSC, 557,615 matched with at least one postsecondary institution. Of these, 7,306 were matched but blocked by requests for privacy under the Family Educational Rights and Privacy Act (FERPA), leaving 550,309 students with detailed postsecondary data from the NSC. In total, the data set contains 4,031,542 unique enrollment terms, with detailed information on enrollment timing, the institution of enrollment, intensity of enrollment, and declared major (reported by a subset of institutions). In addition to enrollment data, the NSC returned 243,520 detailed records of degrees and credentials received by North Carolina

# Work With Us

What questions do you have  
about your community?

What data do you need to make  
better decisions?



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