



## **The Student Has Become the Teacher: Tracking the Racial Diversity and Academic Composition of the Teacher Supply Pipeline**

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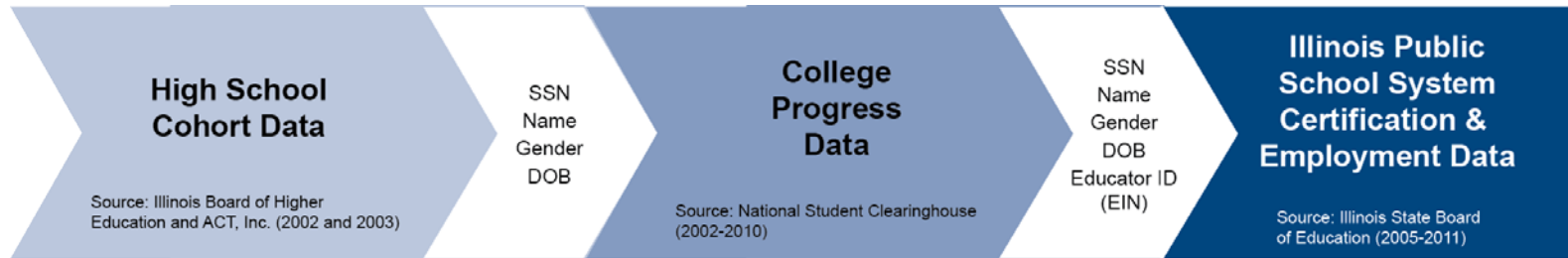
*This study was funded by the Spencer Foundation*

# Background

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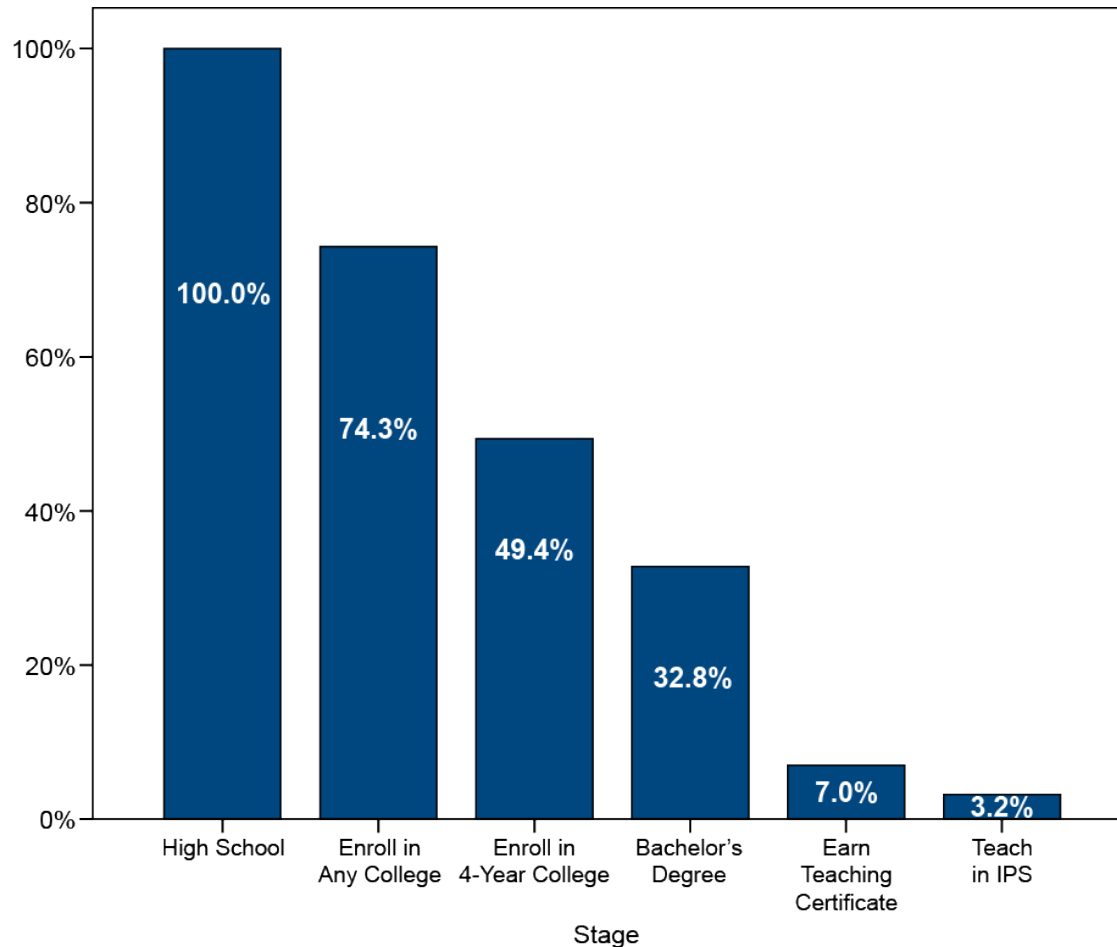
- Studies show that academically skilled teachers have positive effects on student learning and racial/ethnic minority teachers improve educational outcomes for non-White students
- Efforts to improve the academic skills of the overall teaching force can have a negative impact on teacher diversity.
- How do we design policies and practices to improve the supply of academically skilled and racially/ethnically diverse individuals into teaching?
- To find out, we track the 2002 and 2003 cohorts of Illinois high school students for about 10 years to examine the extent to which each stage in the new teacher pipeline affects our ability to attract a diverse, academically skilled teaching force

# Longitudinal Dataset



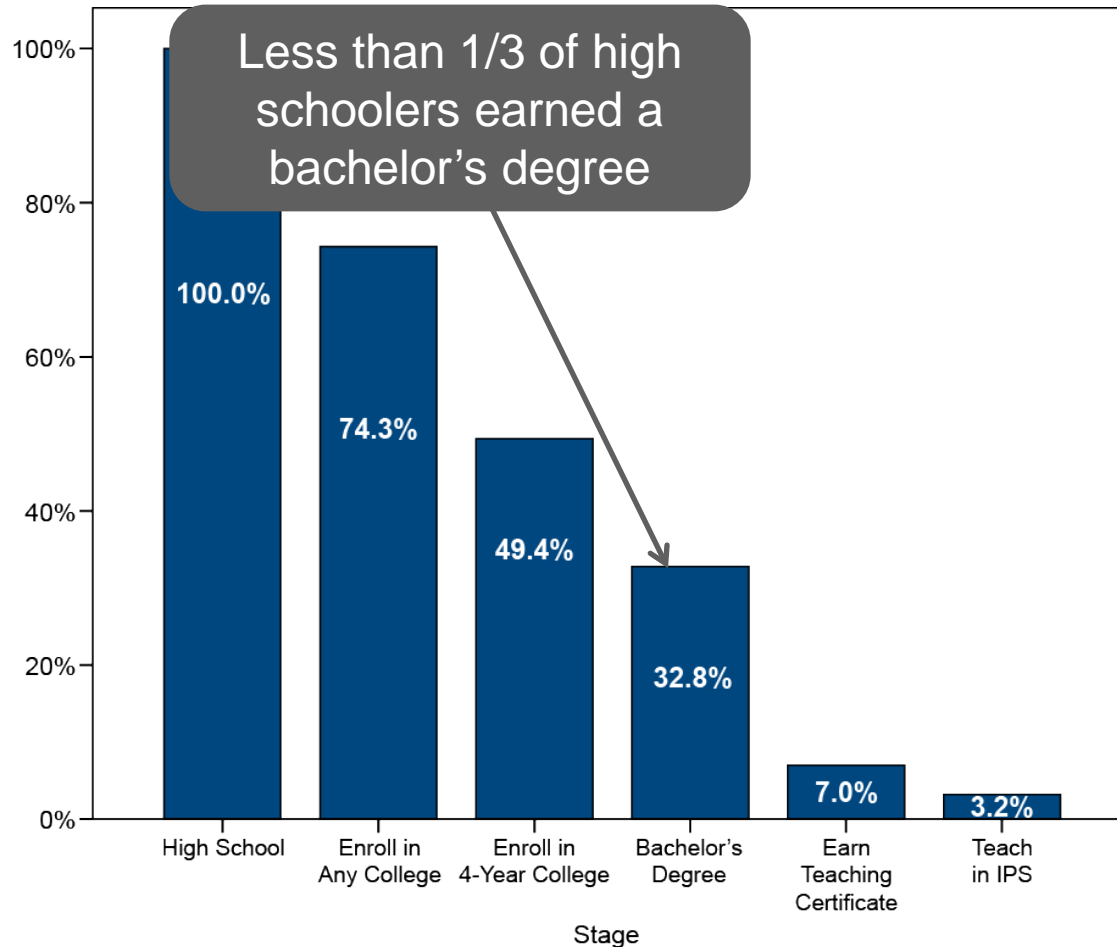
- Tracks students through the following stages:
  1. High school
  2. Enroll in *any* college
  3. Enroll in a *four-year* college
  4. Graduate with bachelor's degree (in any field)
  5. Earn teaching certificate
  6. Teach in a public school in Illinois

# What proportion of students progresses through each stage of the pipeline?



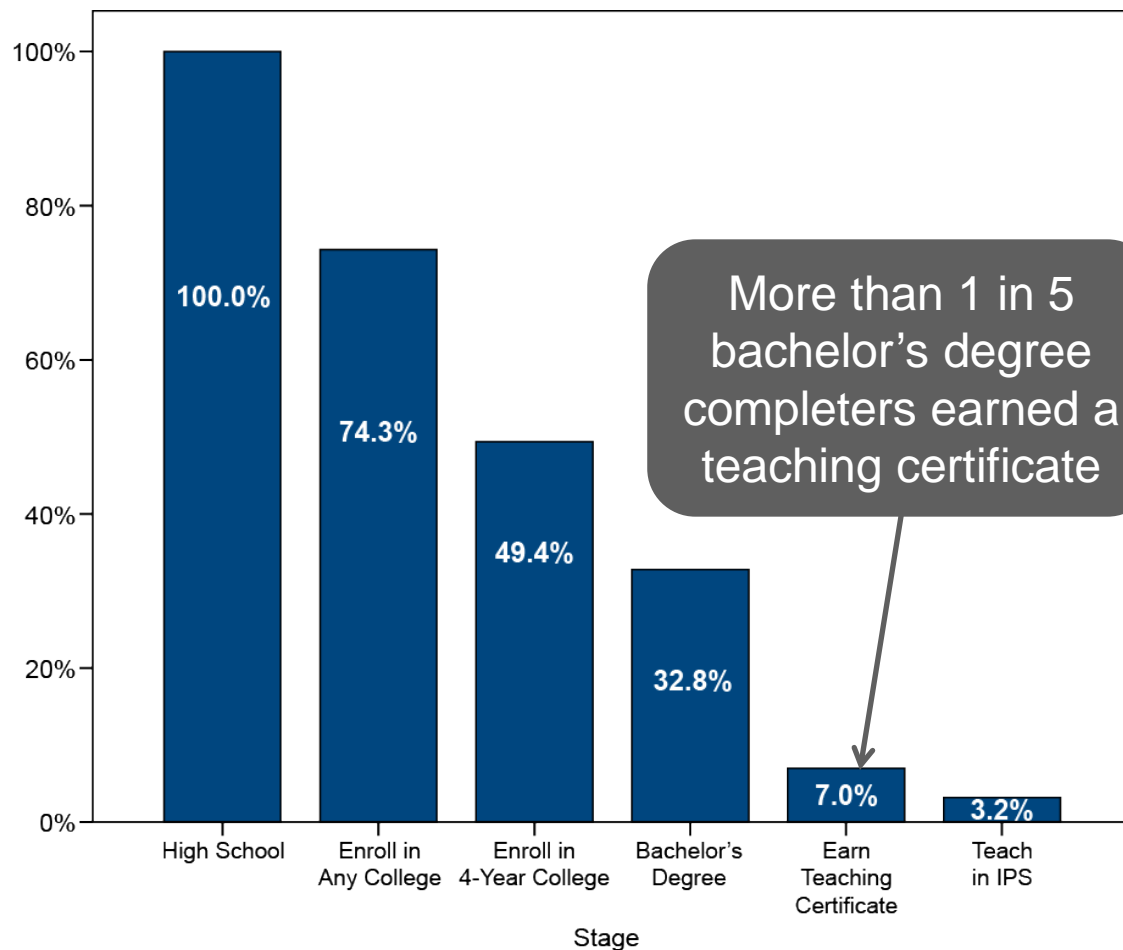
- 3.2% (7,209) of the 225,196 students from these cohorts became teachers in Illinois public schools

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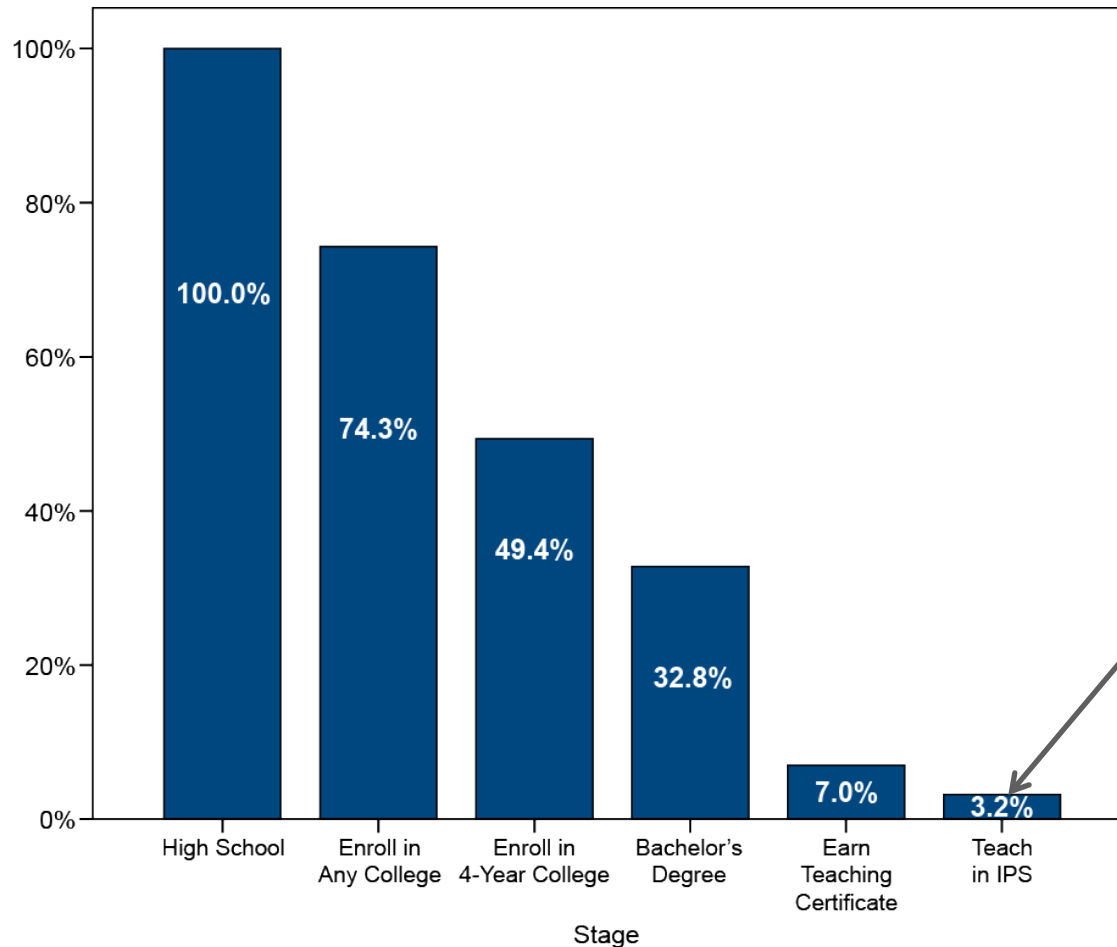
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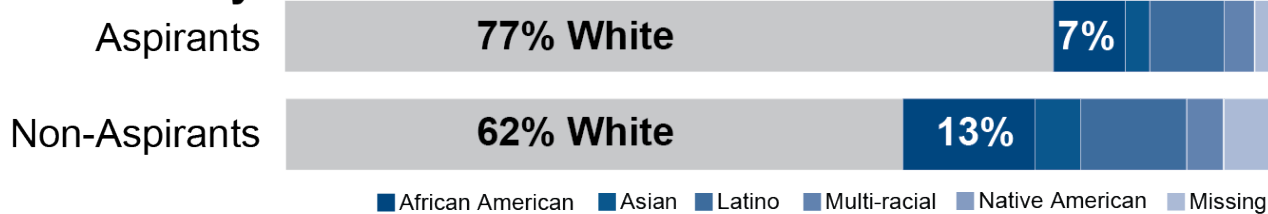


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Less than half of certificants ended up teaching in Illinois public schools

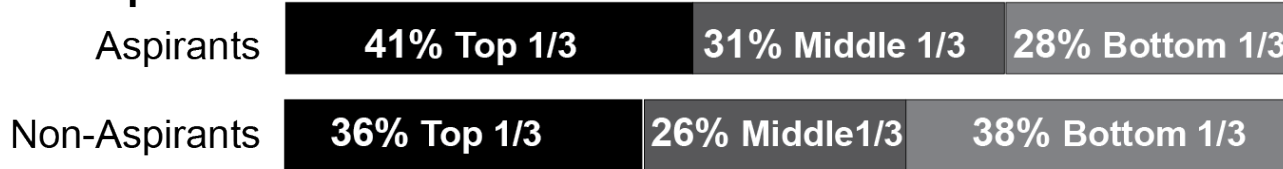
# Who is interested in teaching during high school?

## Race/Ethnicity



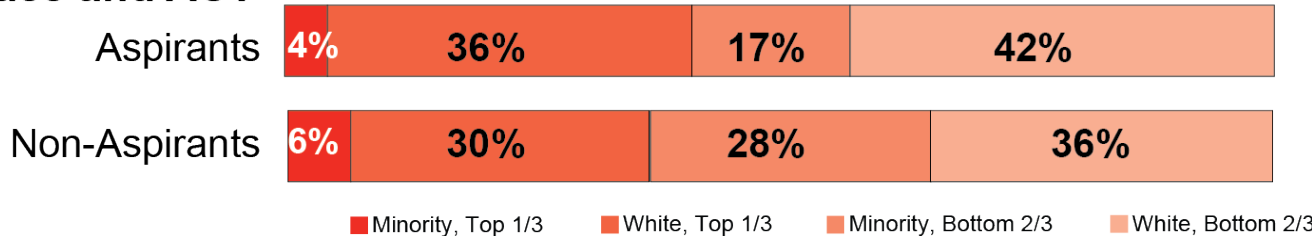
- Based on anticipated major or career from ACT questionnaire

## ACT Composite



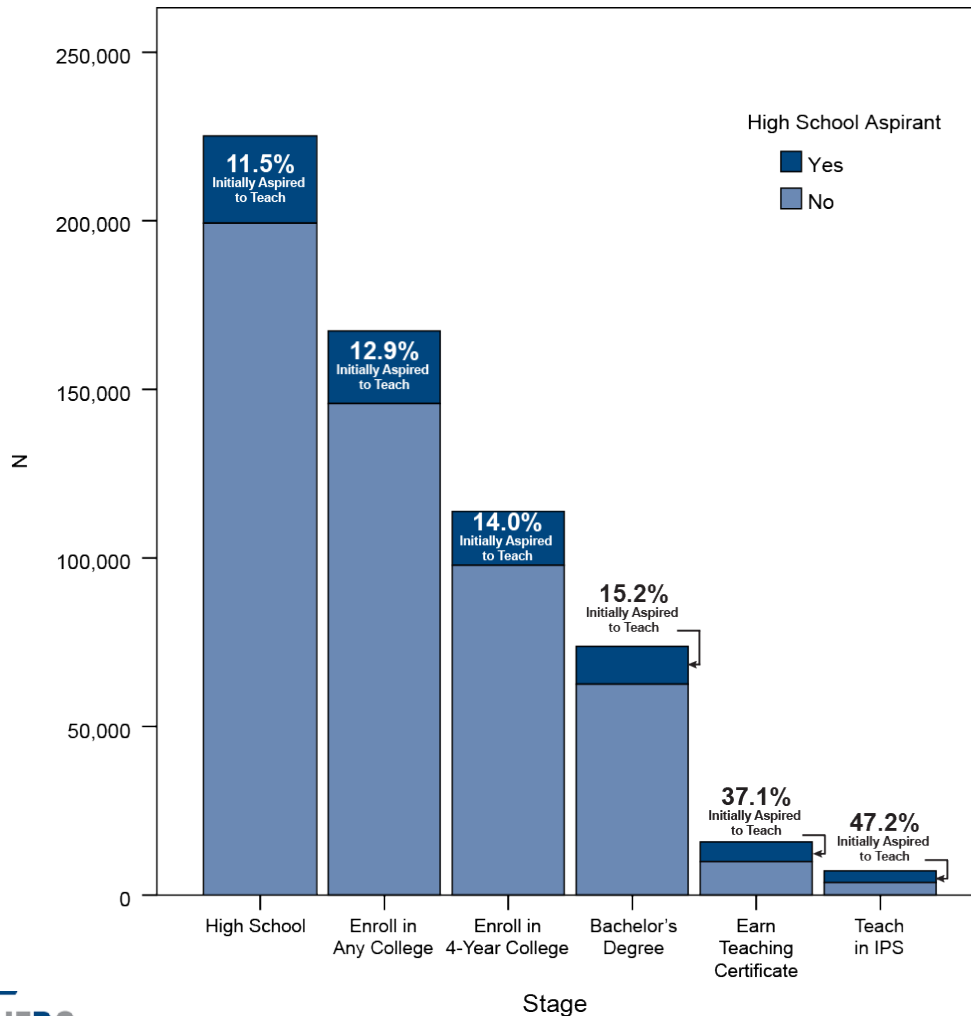
- Non-white students and students from the bottom 1/3 of the ACT distribution (and men) were underrepresented amongst aspirants

## Race and ACT



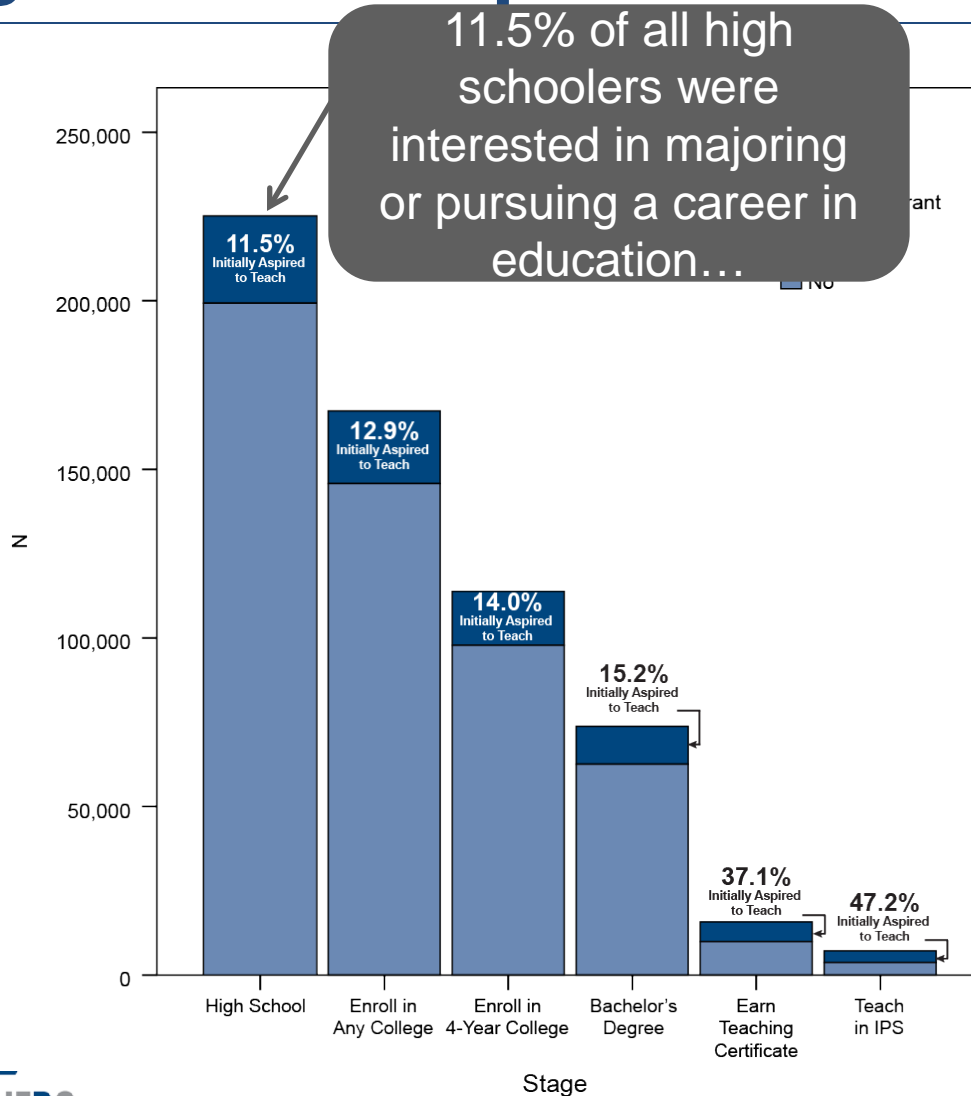


# High school aspirations matter.



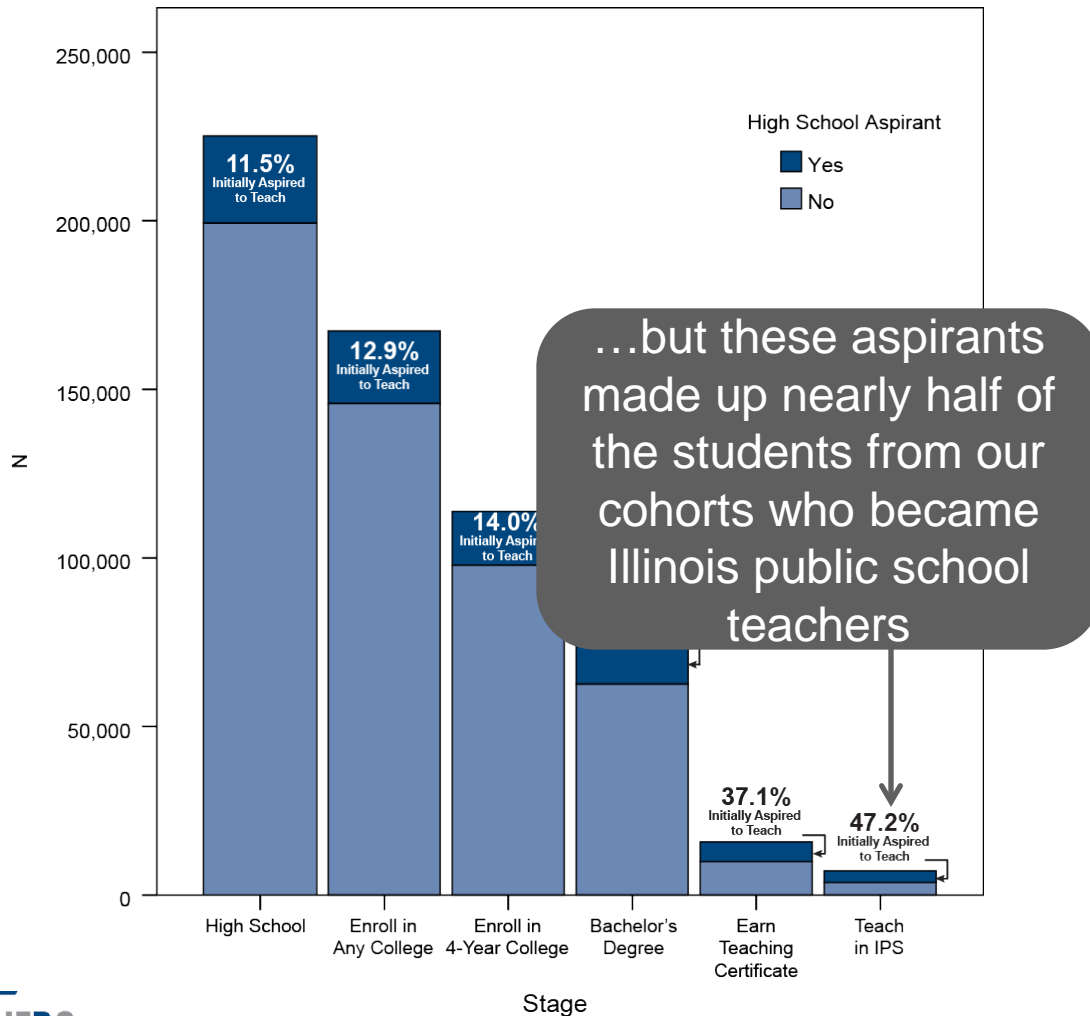
- Students who aspired to become teachers while in high school advanced to each successive stage in the teacher pipeline at higher rates than non-aspirants.

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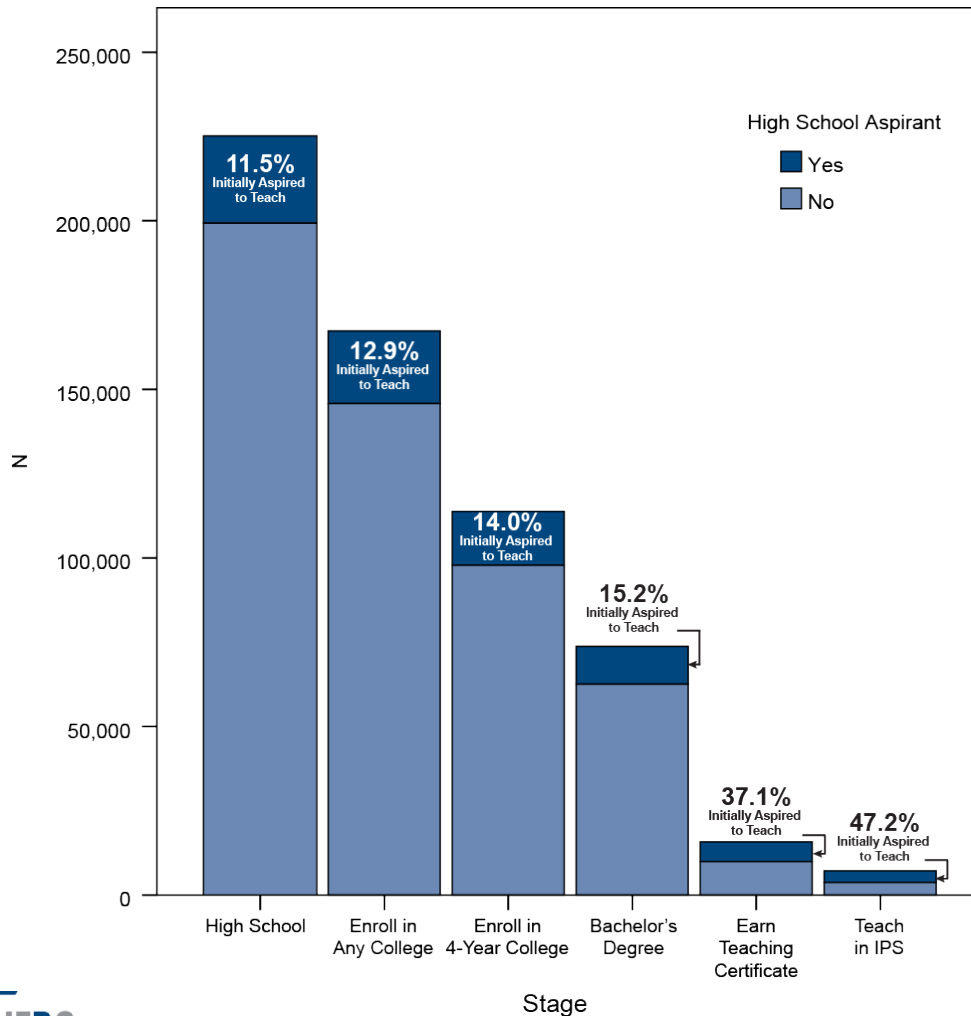
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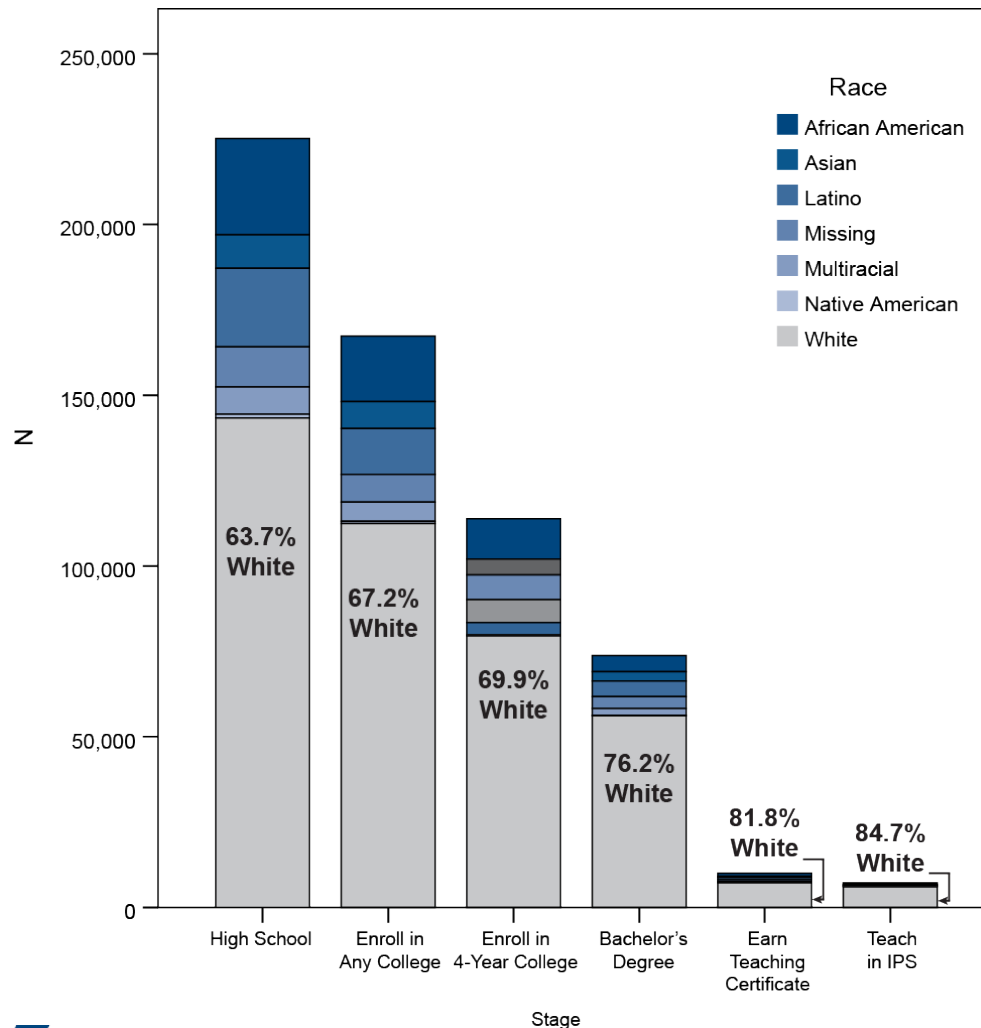
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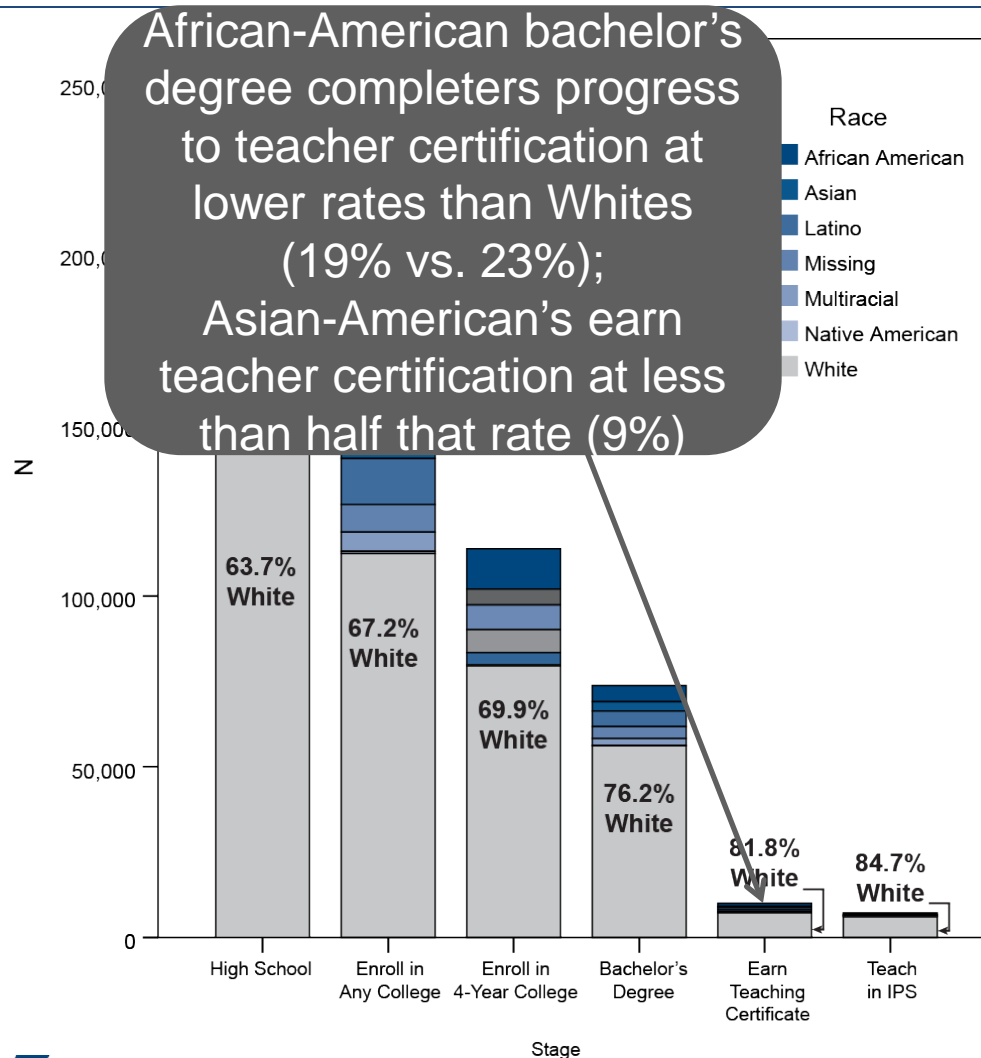
- Students who aspired to become teachers while in high school advanced to each successive stage in the teacher pipeline at higher rates than non-aspirants.
- But still, only 13% of those who aspired to teach while in high school eventually became teachers, and more than half of the teachers from this study did not aspire to teach while in high school.

# How does the racial/ethnic composition of the pipeline change at each stage?



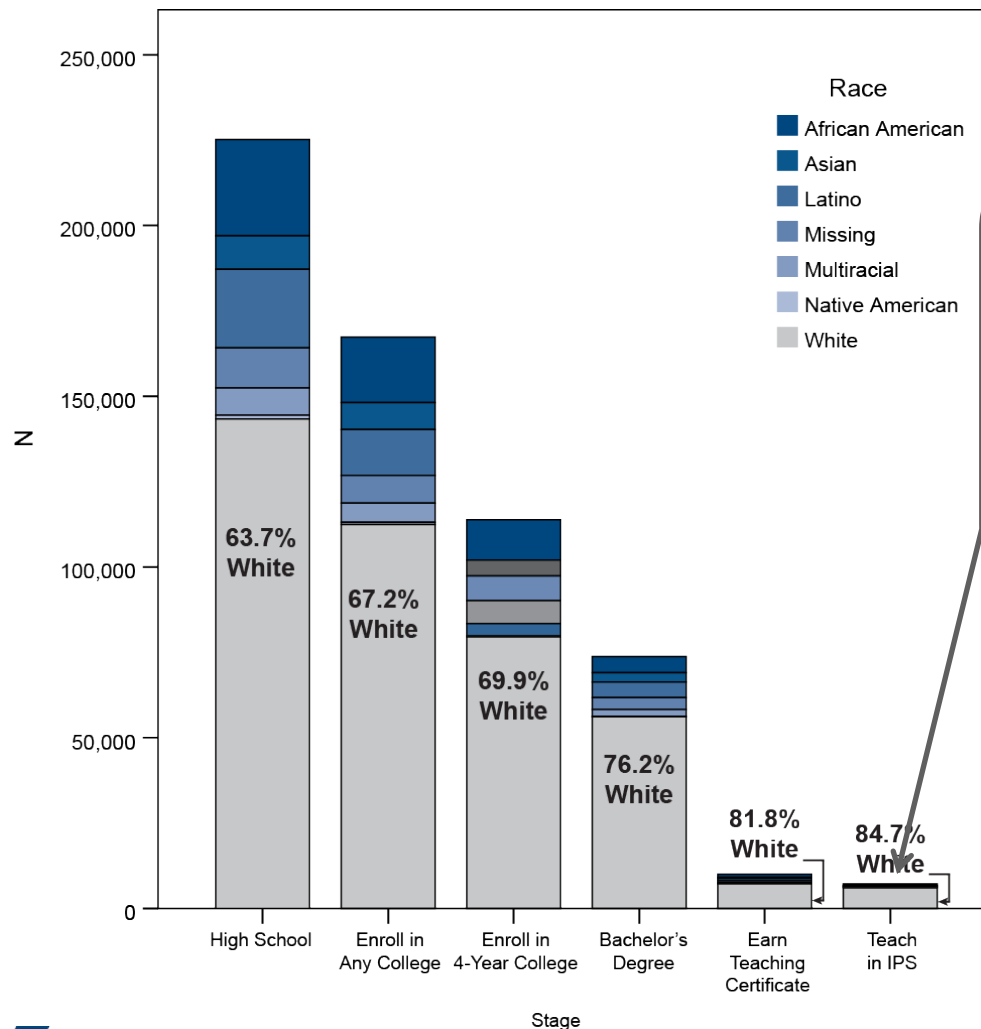
- White students make up increasingly larger proportions of the pipeline at each stage (63.7% of high schoolers → 84.7% of teachers)
- The underrepresentation of racial/ethnic minorities throughout the college pipeline has been widely documented

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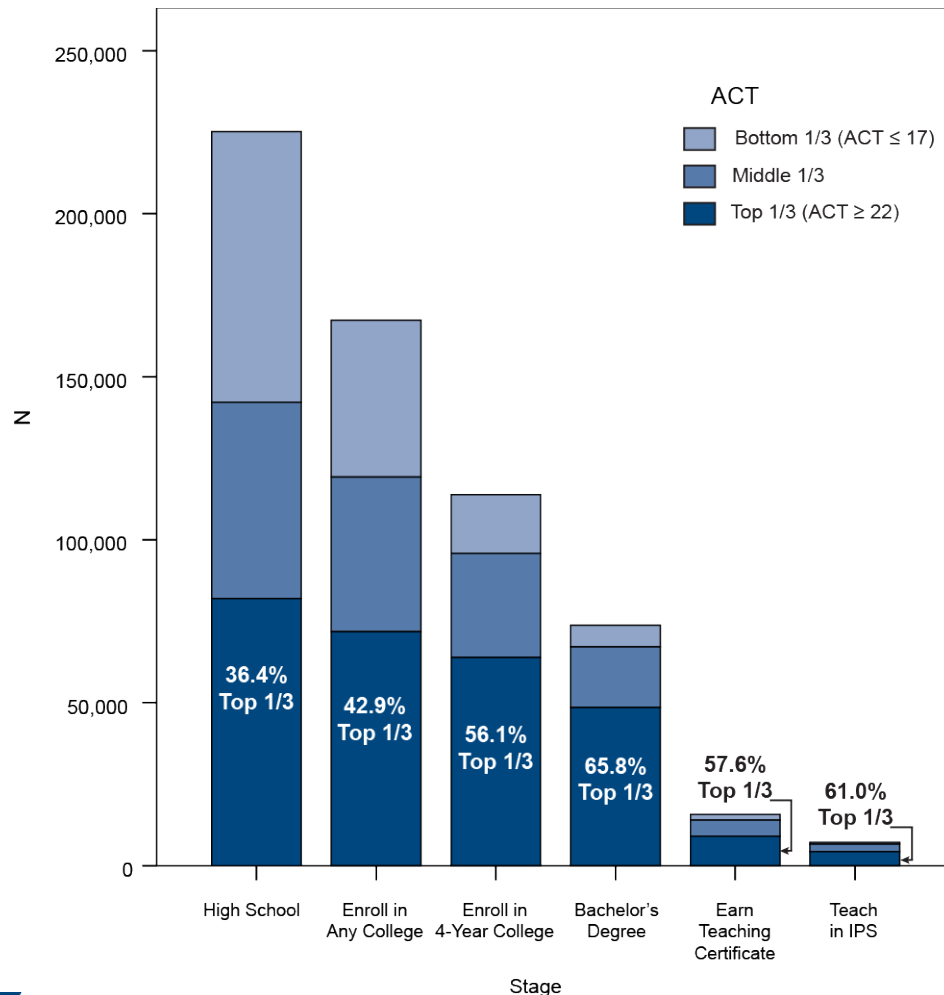


- White students make up increasingly larger

About half of White and Latino certificants become IPS teachers compared to ~40% or less of certificants from other racial/ethnic groups (e.g. 27% of African-Americans)

throughout the college pipeline has been widely documented

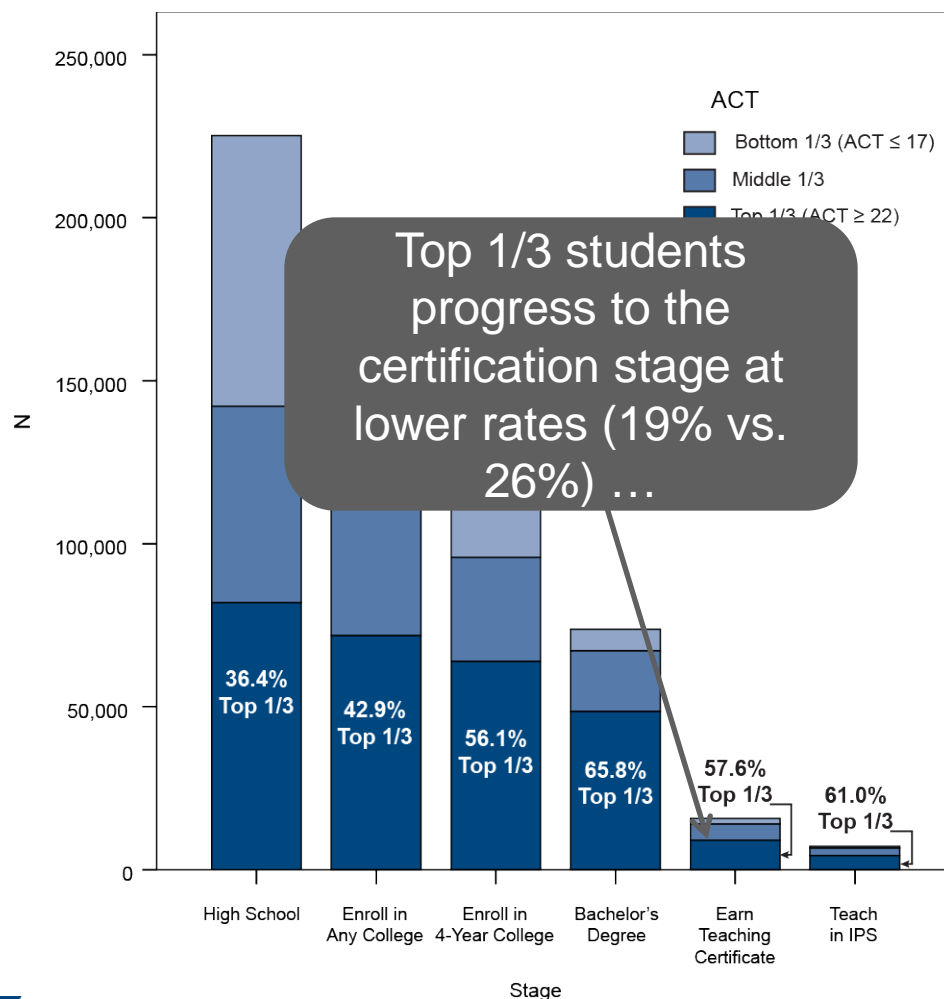
# How does the academic composition of the pipeline change at each stage?



- Students from the top 1/3 of the ACT distribution make up an increasingly larger share of the pipeline – until the certification stage

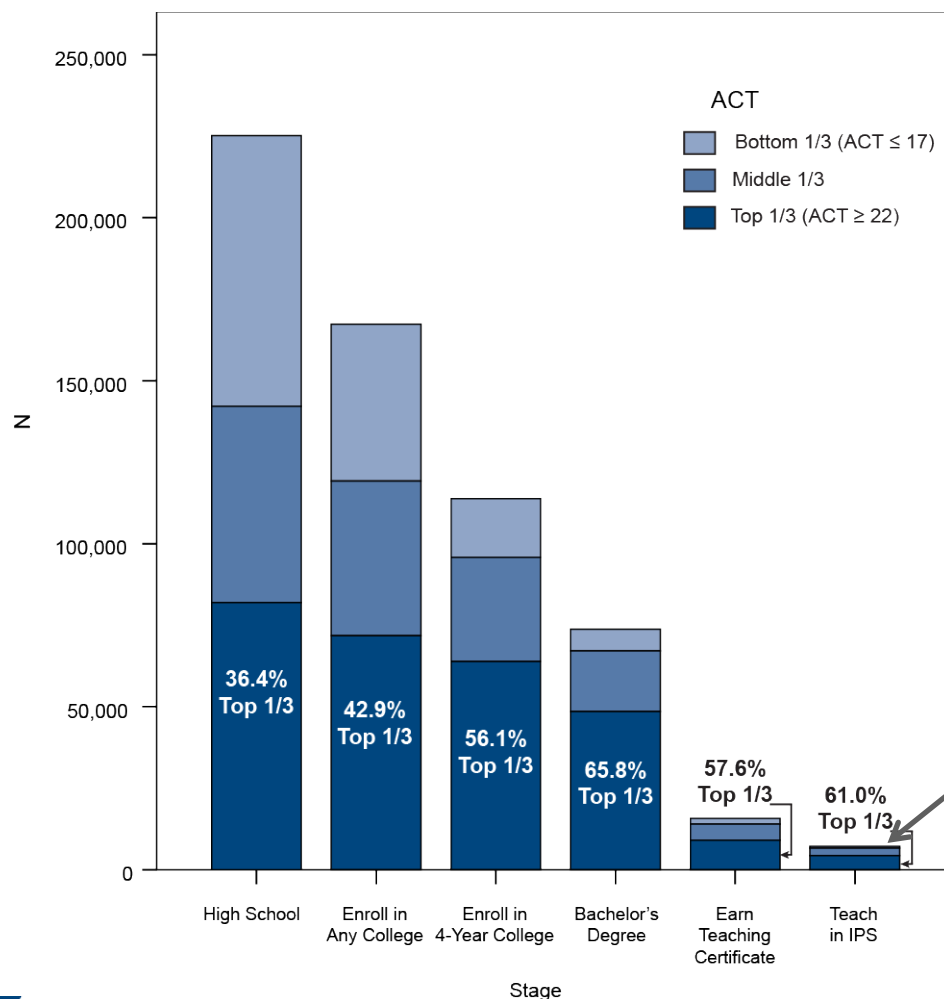


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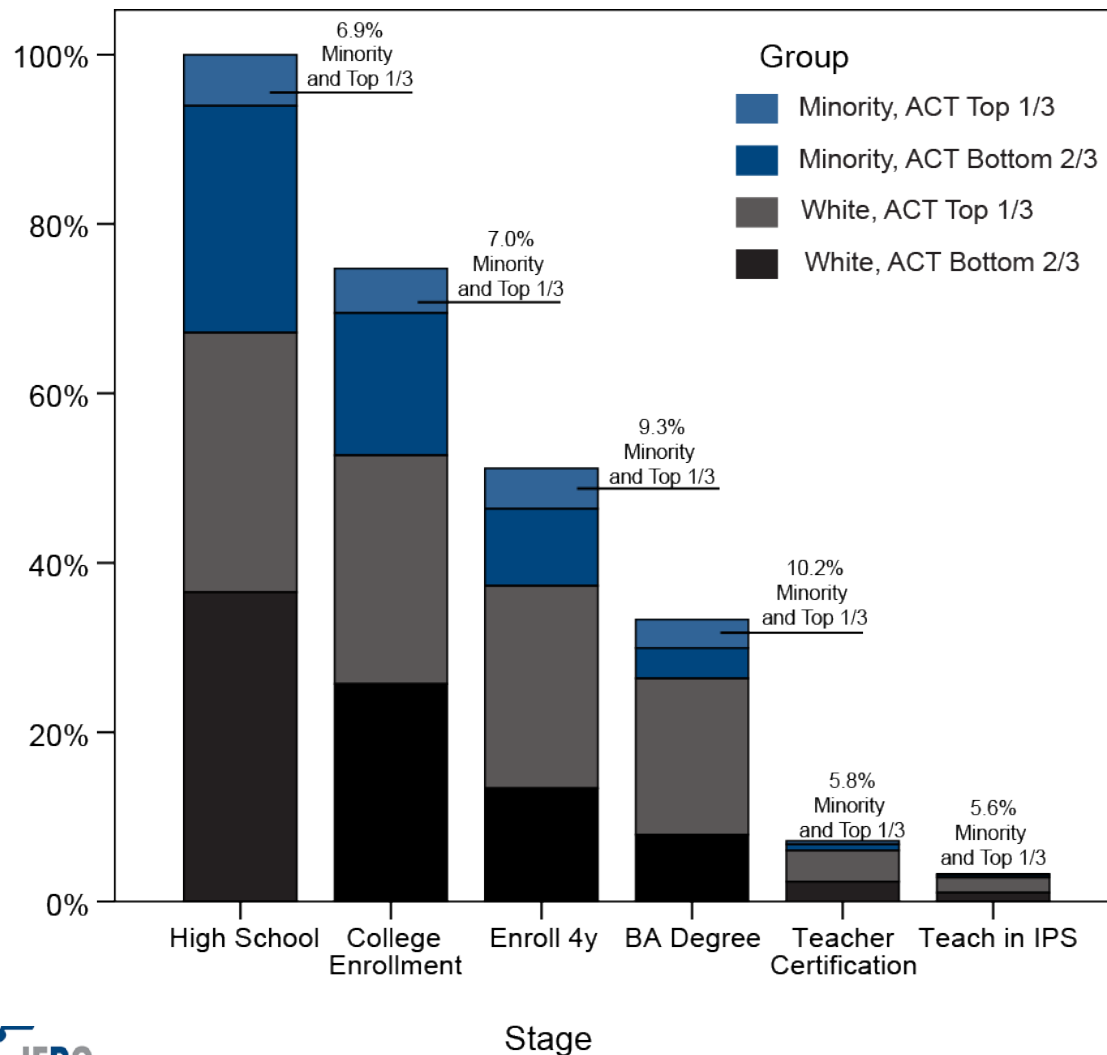
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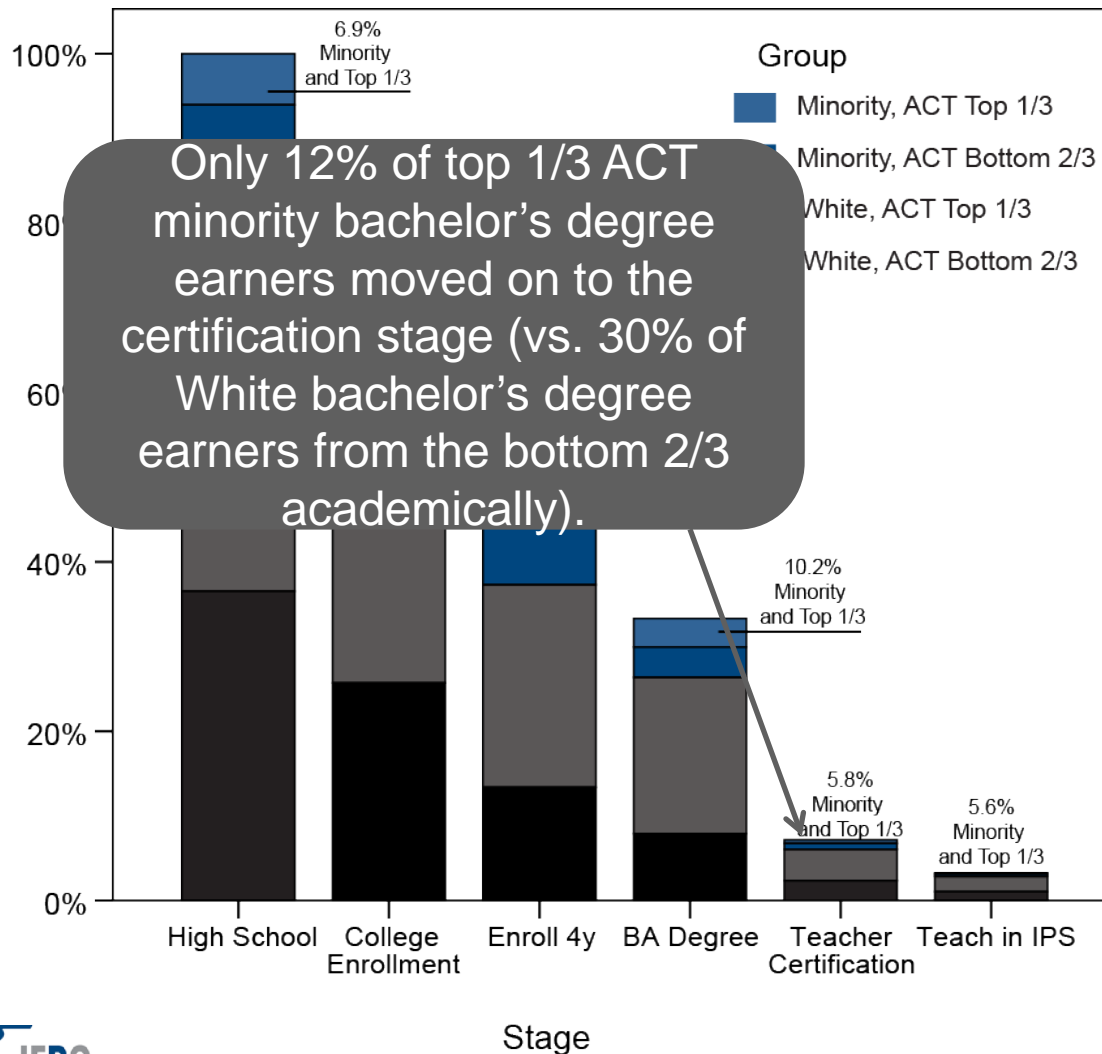
...but then transition to teaching at higher rates (>45% vs. 31% for bottom 1/3)

# How does the racial and academic composition of the pipeline change at each stage?



- The group of minority students from the top 1/3 of the ACT distribution is relatively small from the outset
- ...but increases proportionally throughout the college pipeline
- ...before dropping nearly in half at the certification stage.

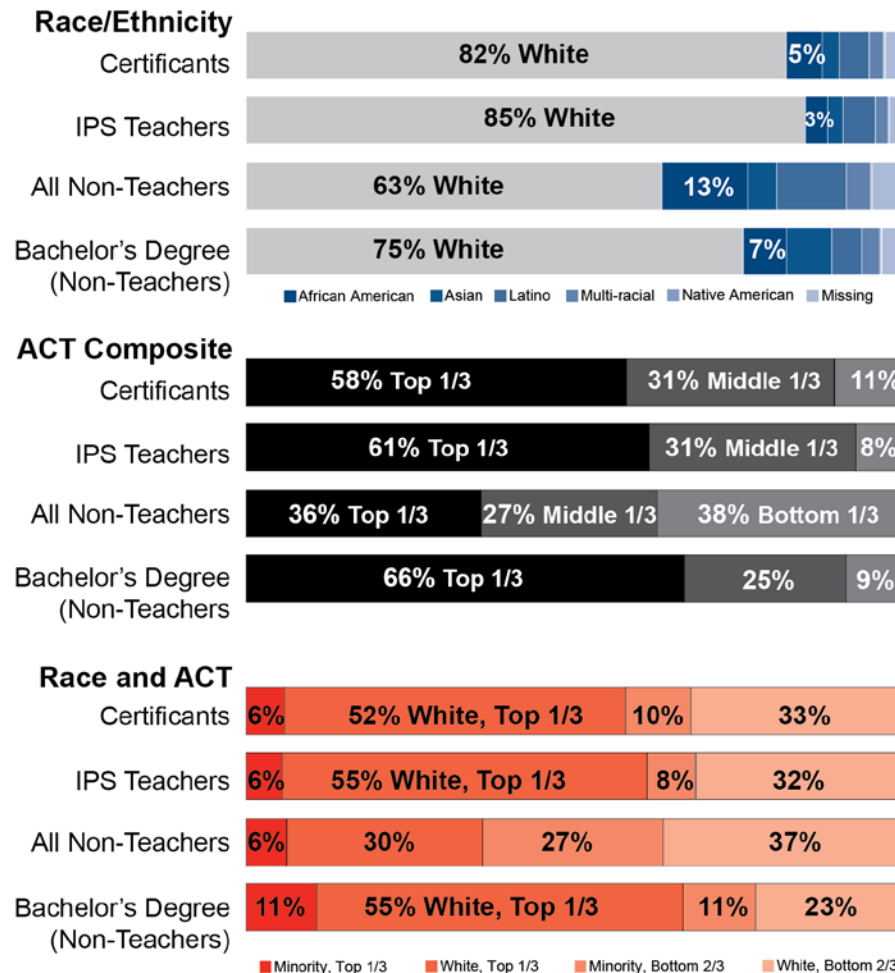
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# How do teachers differ from non-teachers?

It depends on your comparison group...

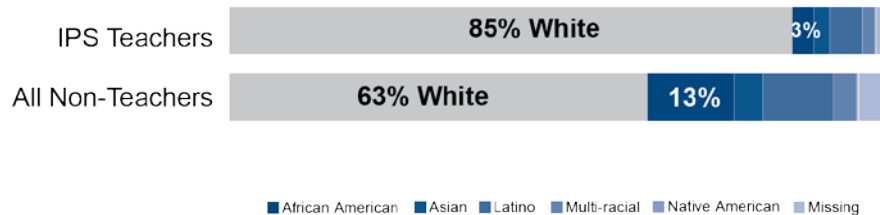


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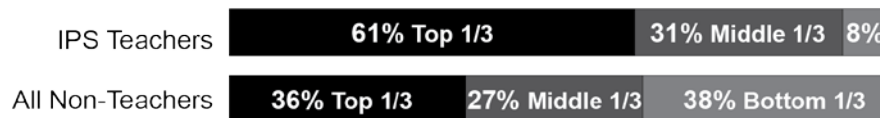
It depends on your comparison group...

- HS peers are more diverse, but much weaker academically

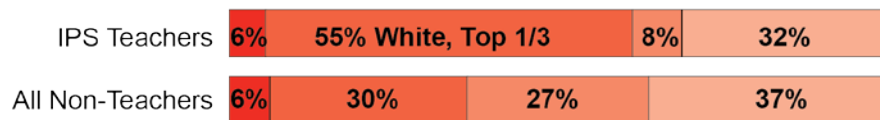
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## ACT Composite



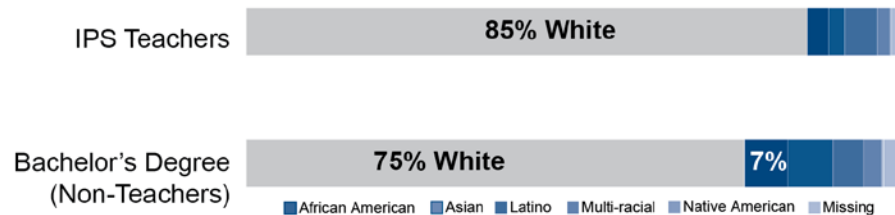
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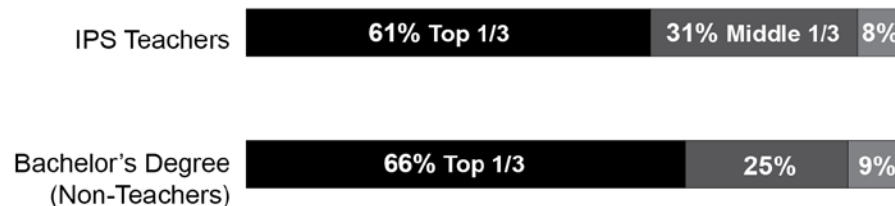
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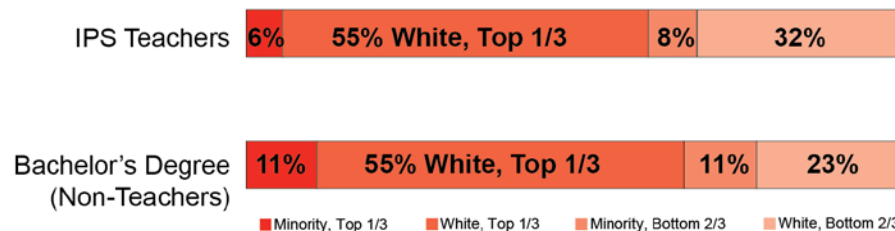
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- Other bachelor's degree earners are still more racially/ethnically diverse but academically similar

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## Race/Ethnicity

Certificants



Bachelor's Degree  
(Non-Teachers)



## ACT Composite

Certificants



Bachelor's Degree  
(Non-Teachers)



## Race and ACT

Certificants



Bachelor's Degree  
(Non-Teachers)



- Comparing certificants to other BA earners (probably the most apt comparison) shows that certificants lag in both diversity and academics



# Summary

- **Compositional changes occurred at each stage of the new teacher pipeline and a relatively a small percentage (3.2%) of students became public school teachers**
- **Academic preparation plays a role in progress through the pipeline, but other factors – like aspirations – also have a large impact**
- **The transition from the certification stage to the employment stage (teaching in an Illinois public school) appeared to be one of the most critical stages in the pipeline.**
- **Whites generally progressed through the college pipeline, aspired to teach, and transitioned to certification and teaching at greater rates than racial/ethnic minorities**
- **Academically skilled students generally progressed through the college pipeline at greater rates but earned teacher certification at lower rates**
- **As a result, teachers who emerged from these cohorts were generally less diverse than non-teachers and tended to be from the middle of the ACT distribution**

# Policy Recommendations

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- **Any initiatives intended to increase the academic qualifications of teachers should not neglect teacher diversity, and any efforts that focus on boosting teacher diversity must not neglect teacher academics.** Some promising sources of academically skilled and racially/ethnically diverse candidates identified by this study include:
  - Highly competitive colleges
  - Alternative certification routes
  - Out-of-state institutions (or efforts to reduce outmigration to begin with)

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  - Highly competitive colleges
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- Other recommendations include:
  - Recruitment efforts – both during high school and continue into college
  - Holding teacher preparation programs accountable for both the quality and diversity of the teachers they train
  - Statewide initiative to fund teacher preparation programs that target high-achieving minority candidates

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  - Statewide initiative to fund teacher preparation programs that target high-achieving minority candidates
- A **comprehensive strategy** must also include efforts to improve the educational opportunities and outcomes for minority students from early childhood through postsecondary education.

# Future Directions

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- We need *more research* to help us understand:
  - Students' transitions (or lack thereof) from certification to the employment stage
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- These cohorts are *just one component* of the teacher pipeline, and additional sources should not be neglected among the state's broader efforts
- Getting these diverse, academically talented teachers through the pipeline and into the classroom is *only the first step* – once there, we also need efforts to keep high-quality educators in profession



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