

Teacher Supply, Demand, and Shortages in Pennsylvania

Ed Fuller, PhD

Professor, Education Policy Studies

Director, Center for Evaluation and Policy Analysis



College of Education
Penn State University



Undergraduate Program: Education & Public Policy

Graduate Programs: Education Policy and Education Leadership

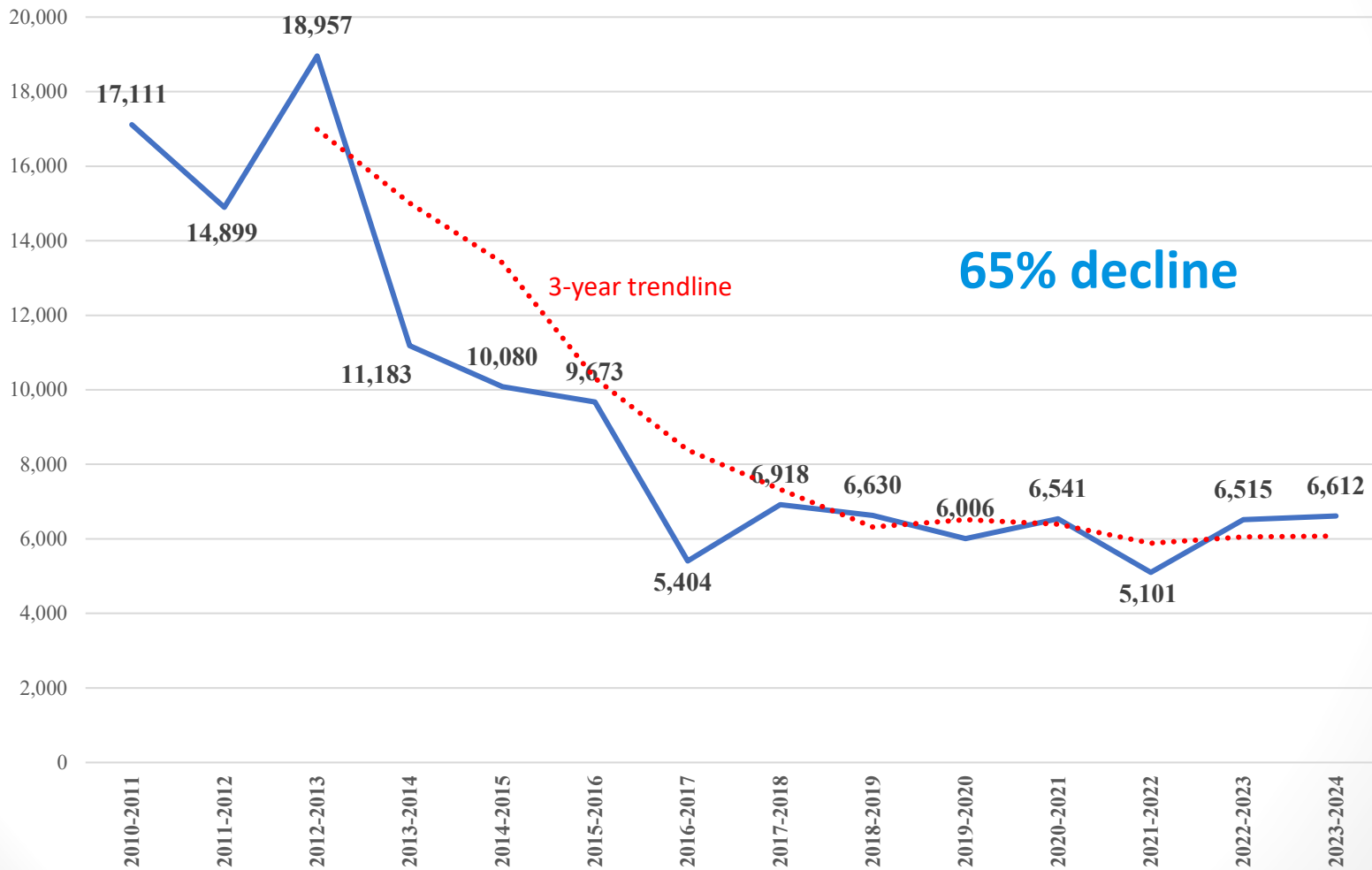
Data Sources

- **Pennsylvania Department of Education**
 - Educator employment
 - Educator Vacancies
 - Educator Emergency Permits
 - Future Ready Index (school and district characteristics)
- **USDoE**
 - Title II data on teacher preparation programs
 - National Center for Education Statistics: Elementary and Secondary Information System (School and district characteristics)

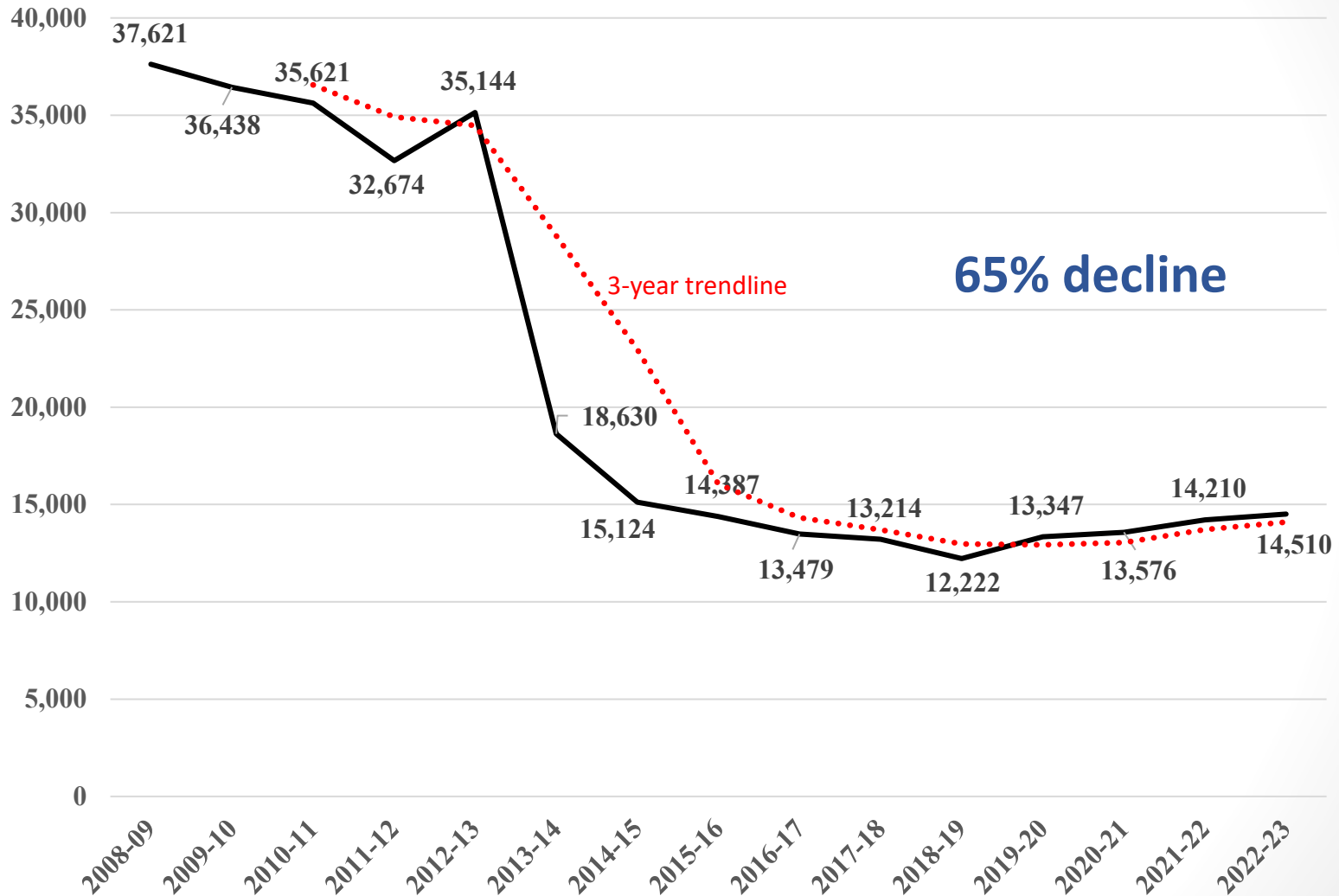
Teacher Supply

- Number of newly certified teachers
- Number of individuals enrolled in teacher preparation programs
- Number of re-entrants

Number of Newly Certified Teachers in Pennsylvania, In-State + Out-of-State (2010-11 to 2023-24)

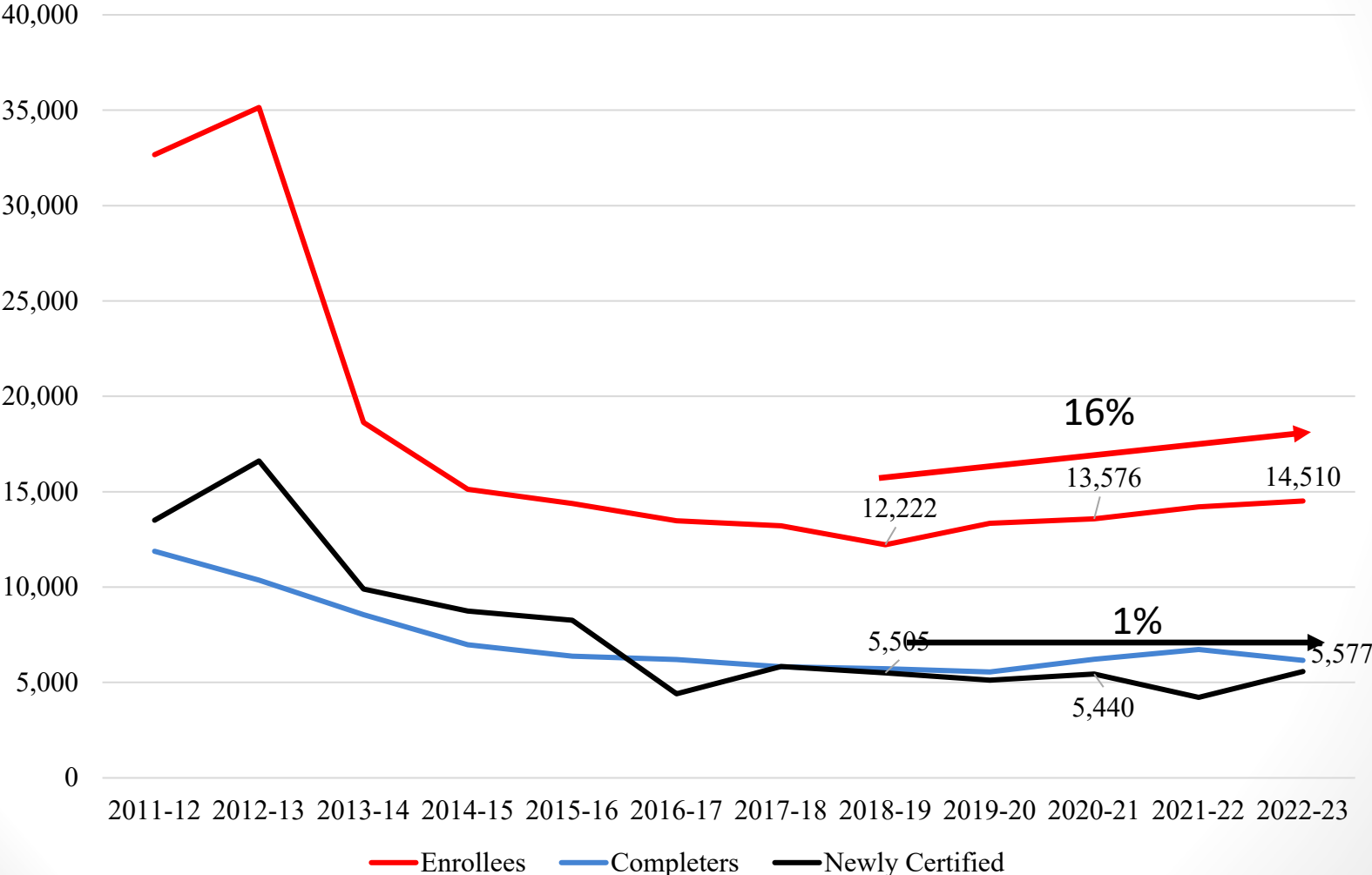


Number of PA Teacher Preparation Program Enrollees* by Year (2009-2023)

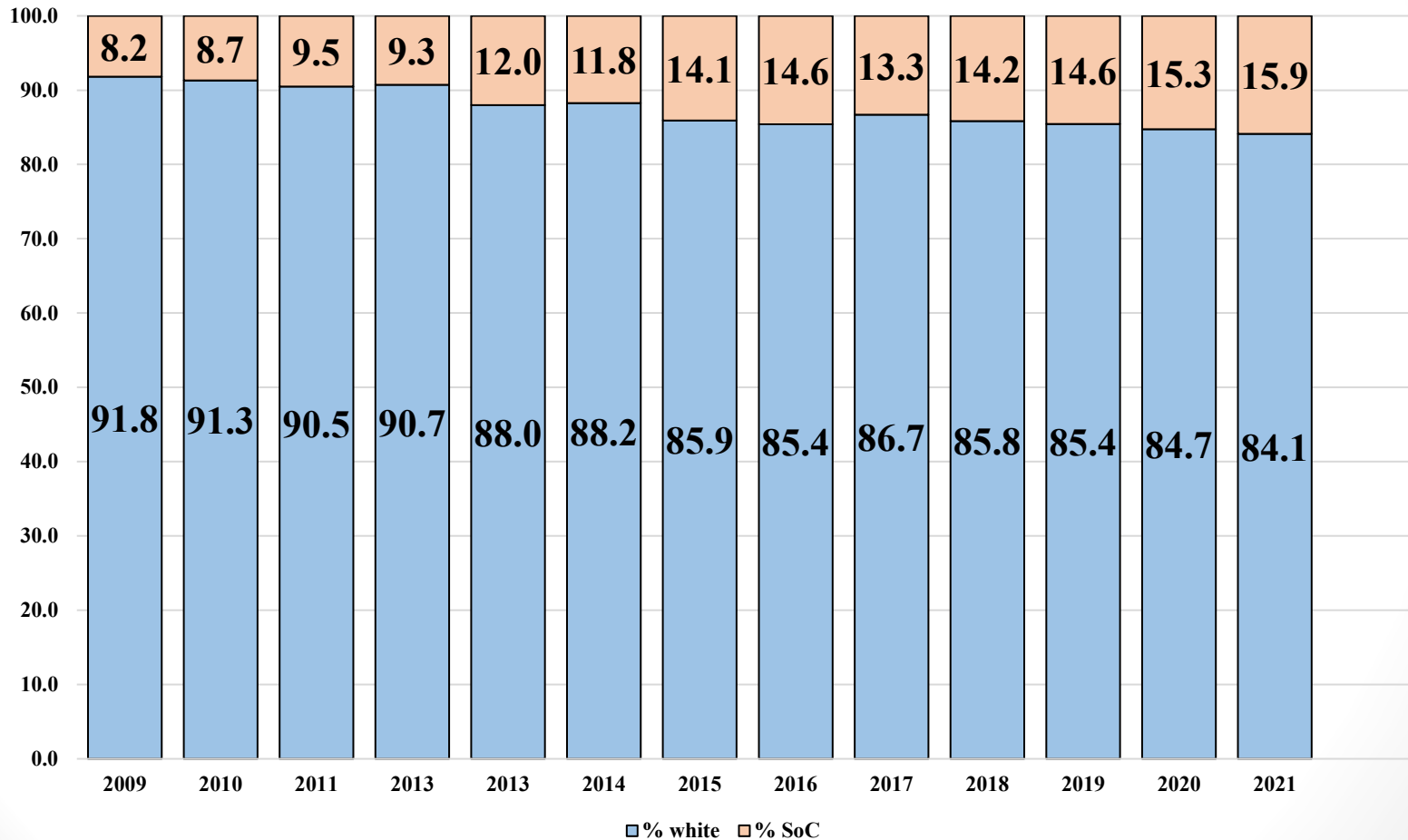


* Enrollees do NOT include those graduating from the program in that academic year.

Number of Enrollees, Completers, and Newly Hired Teachers (2011-12 to 2022-23)



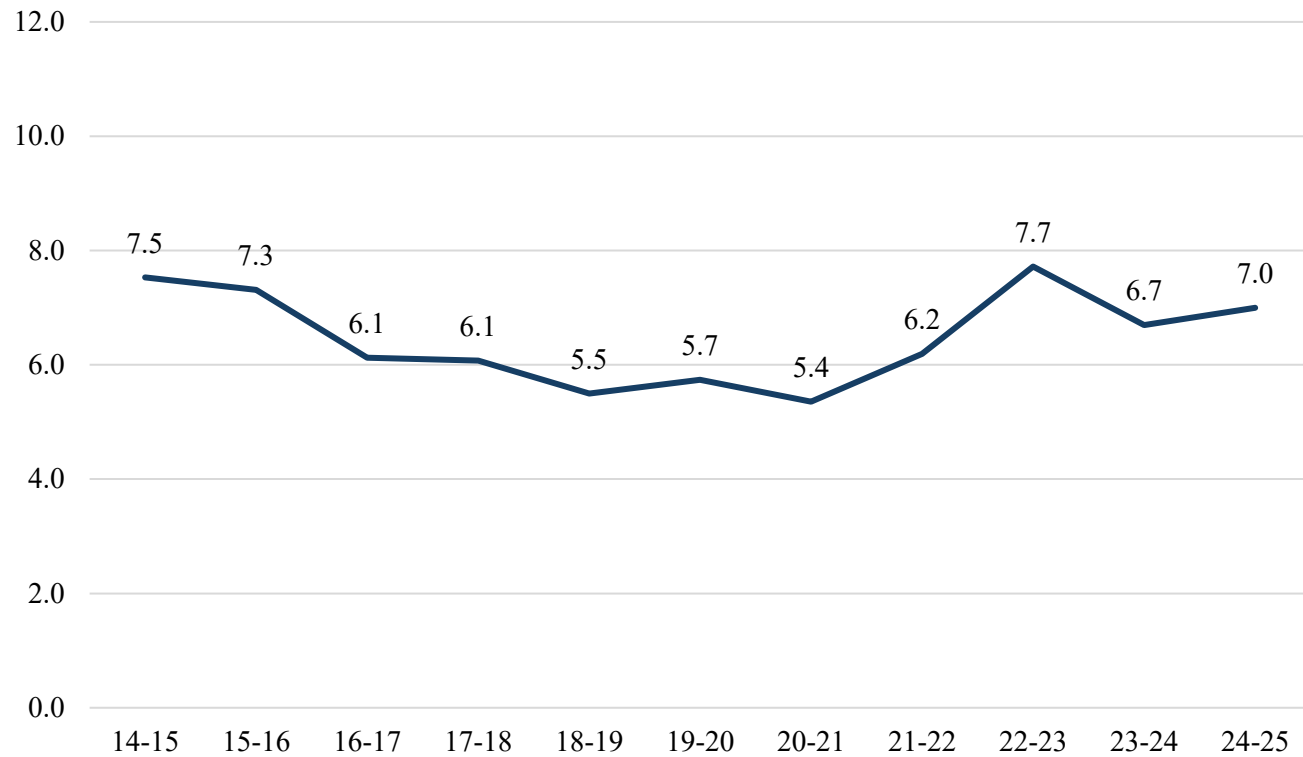
Percentage of Teacher Preparation Program Enrollees by Race/Ethnicity (2008-09 to 2020-21)



Demand for Teachers

- Teacher attrition
- Student enrollment
- Student characteristics

Annual Teacher Attrition



Teacher Shortages

Teacher Vacancies

Number of Vacant Positions

In 2023-24, **2,156**

In 2024-25, **2,477**

Percentage of Entities Reporting Vacancies

In 2023-24, **44%**

In 2023-24, **38%**

Percentage of Entities Reporting at Least One Teaching Position Vacant

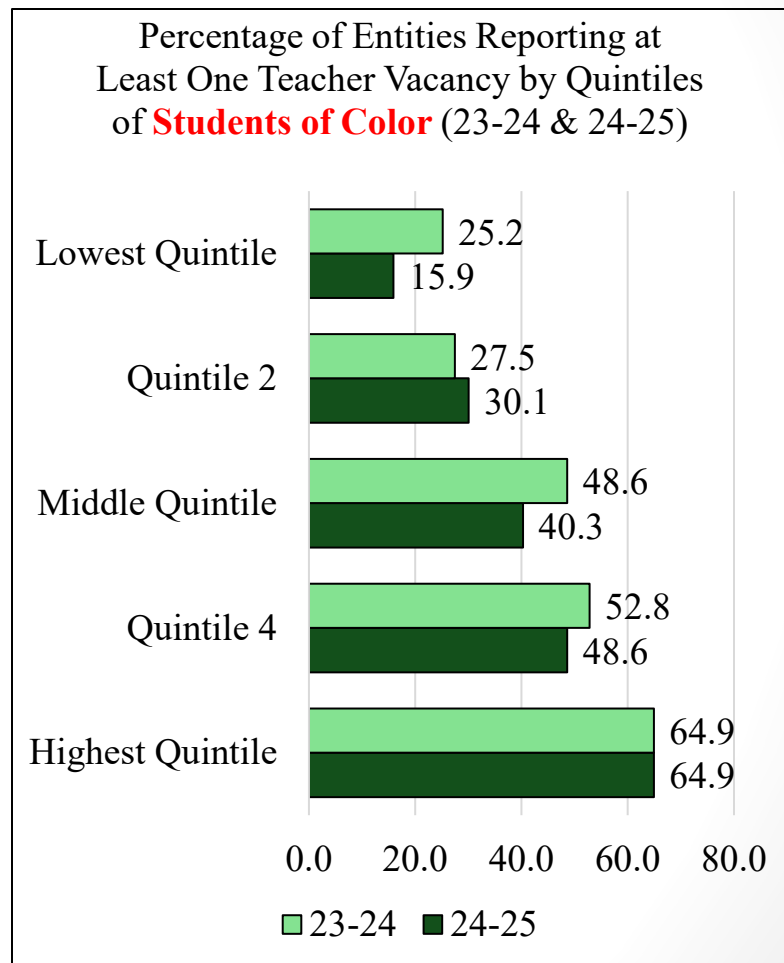
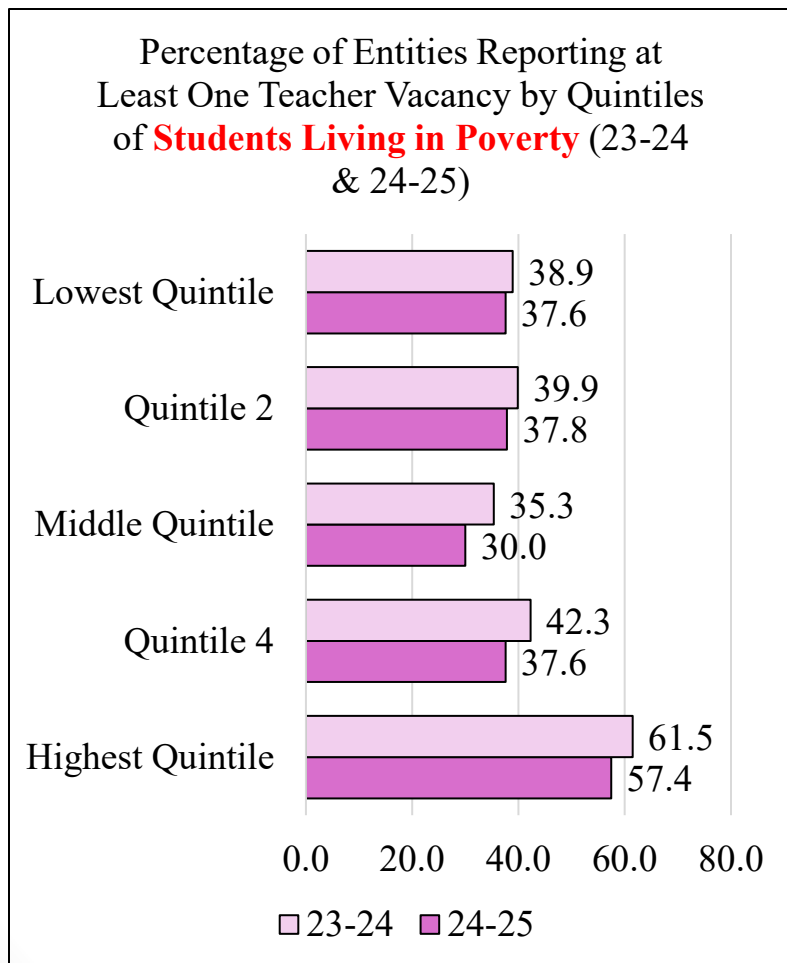
Subject Area	Academic Year		Change: 25 - 24
	23-24	24-25	
Special Education	26.2	25.7	-0.5
Early Childhood	2.1	9.5*	7.4
Elementary	12.4	9.5	-2.9
Mathematics	7.3	7.3	0.1
English Language Arts	6.6	6.9	0.3
Science	8.1	6.8	-1.3
Fine Arts	6.3	4.7	-1.5
World Language	4.4	4.6	0.2
English Language Learners	3.3	3.7	0.5
Social Studies	4.1	3.0	-1.2
PE/Health Education	3.4	2.8	-0.6
Business	3.0	2.7	-0.3
Technology	2.6	1.9	-0.7
Computer Science	1.5	0.9	-0.6
Talented & Gifted	0.4	0.4	0.0

Vacancy Rate by Subject Area

(Number of vacant positions divided by the number of all positions x 100)

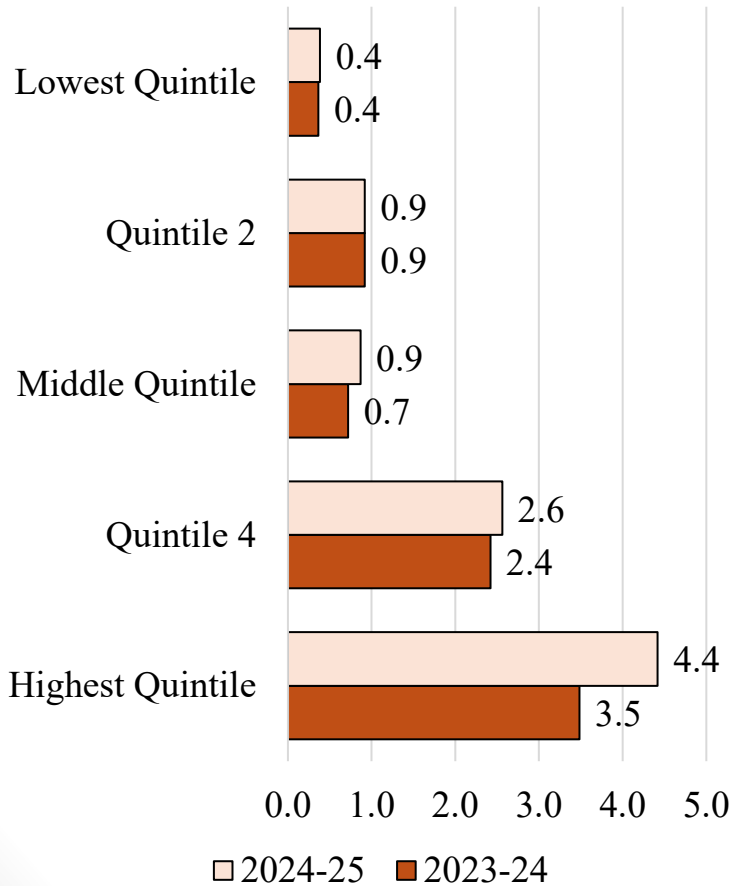
Subject Area	Vacancy Rate
Special Education	3.2
English Language Learner	2.4
Technology Educ	1.6
World Language	1.3
Computer Science	1.3
Science	1.2
Mathematics	1.1
Business	1.1
Fine Arts	0.9
Elem	0.9
English	0.8
PE/Health Education	0.7
Social Studies	0.5
Early Childhood Educ	0.4
Talented & Gifted	0.2

Percentage of Entities Reporting at Least One Vacancy by Student Characteristics

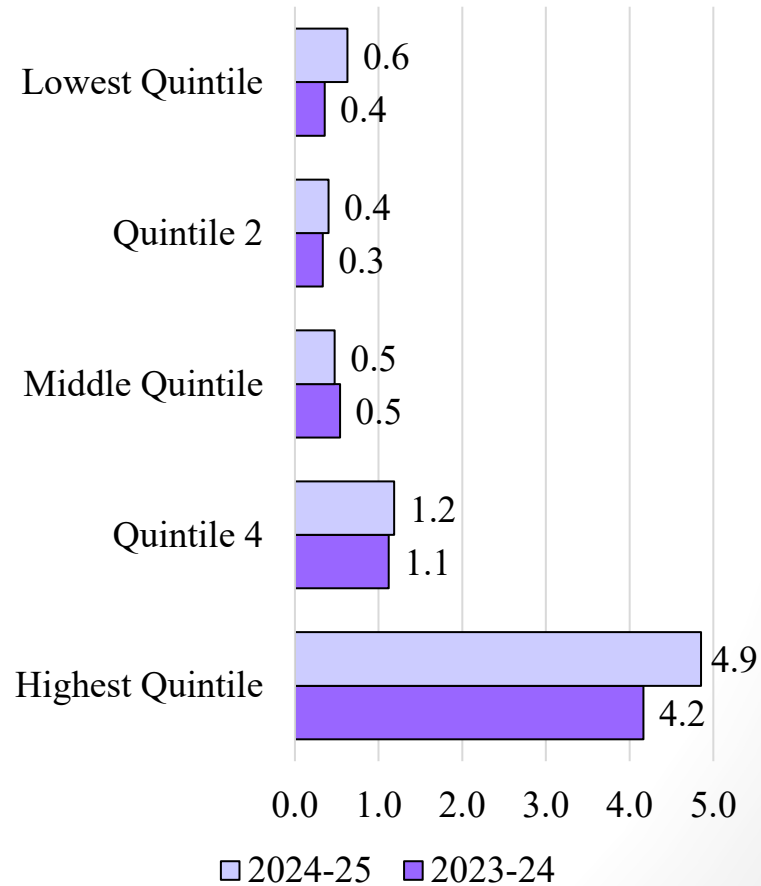


Vacancy Rates by Quintile of Students for Selected Student Characteristics

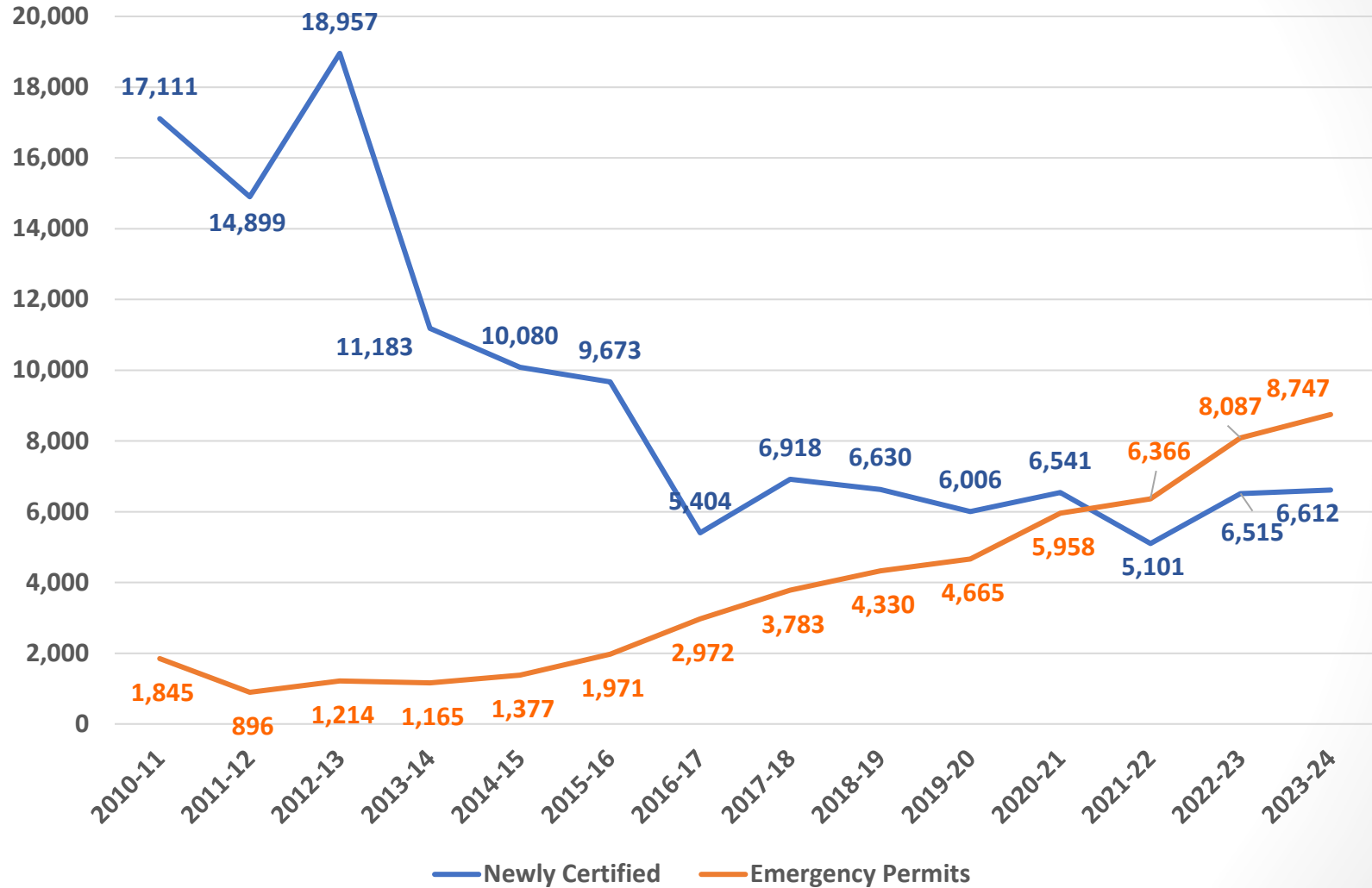
Teacher Vacancy Rates in 2023-24 and 2024-25 by Quintiles of the Percent of Students Living in Poverty



Teacher Vacancy Rates in 2023-24 and 2024-25 by Quintiles of the Percent of Students of Color

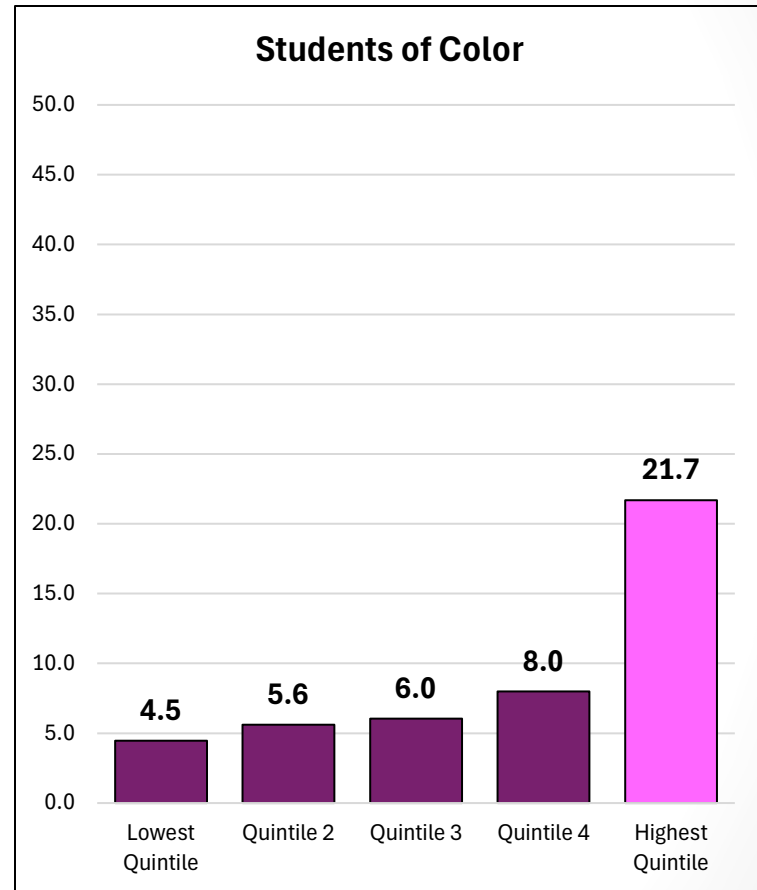
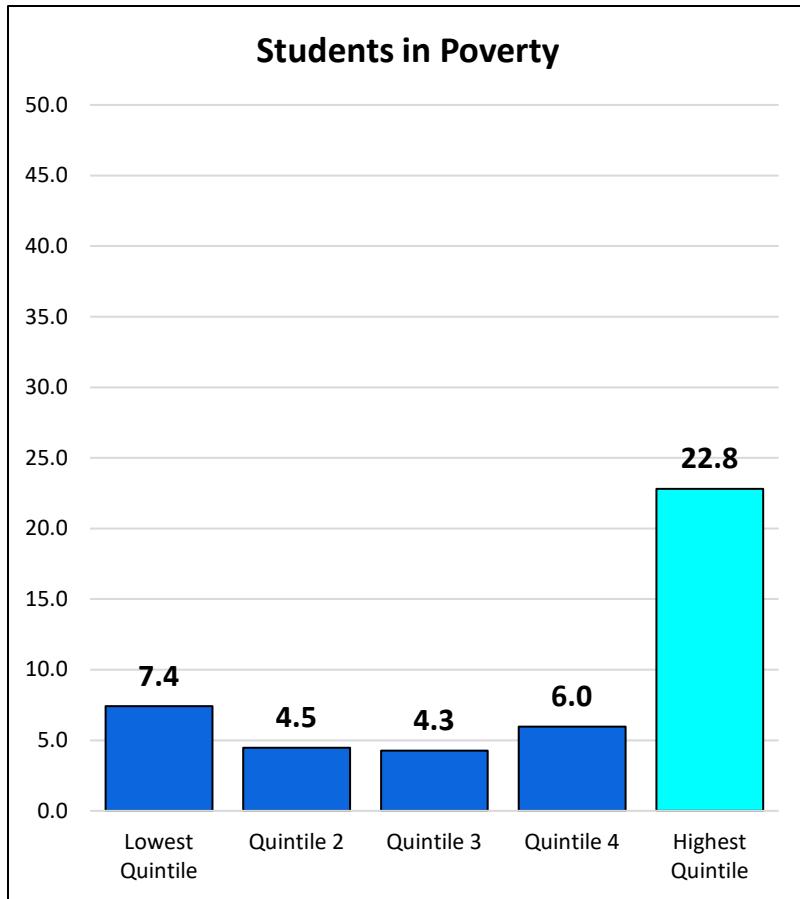


Number of Initial Certifications and Emergency Permits (2011-2024)

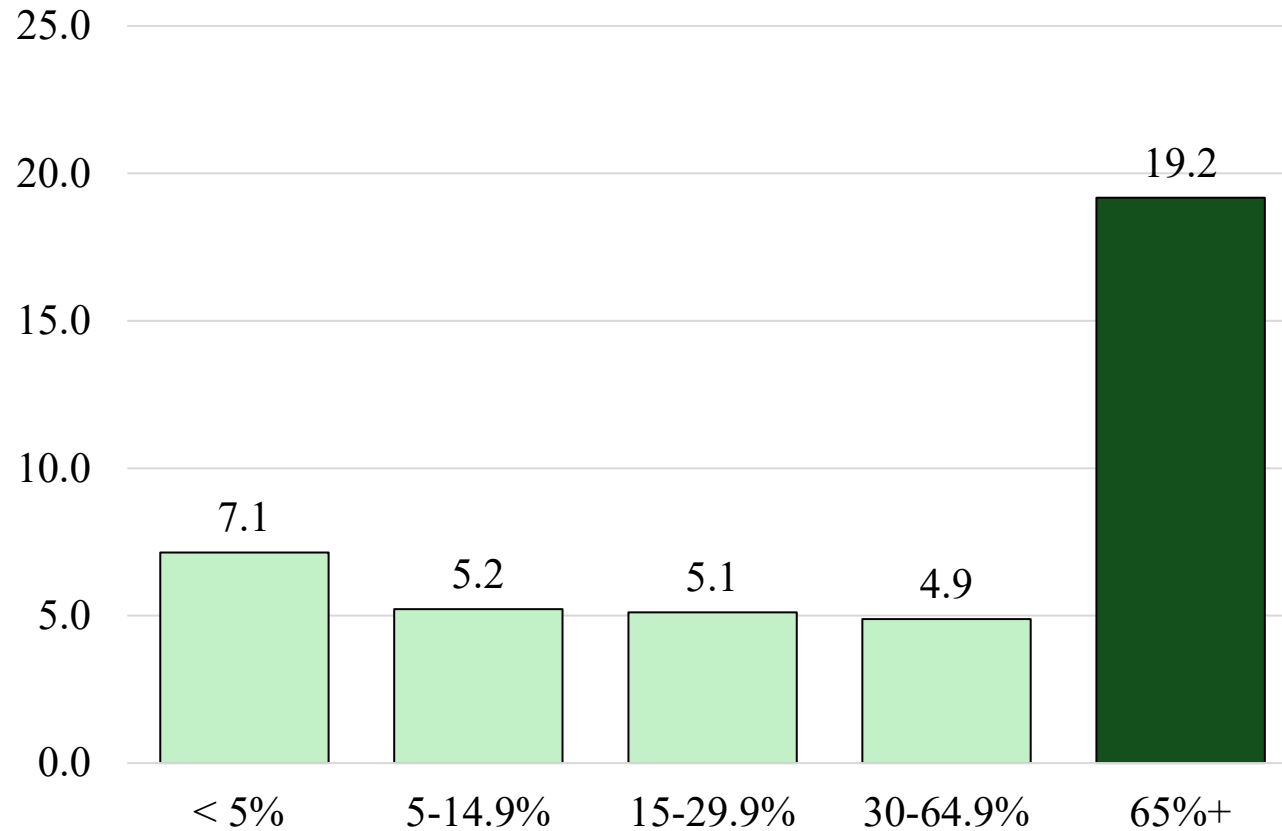


Data Source: Act 82 Report from PDE

Percent of Teaching Positions Filled by Uncertified Teachers (2024)

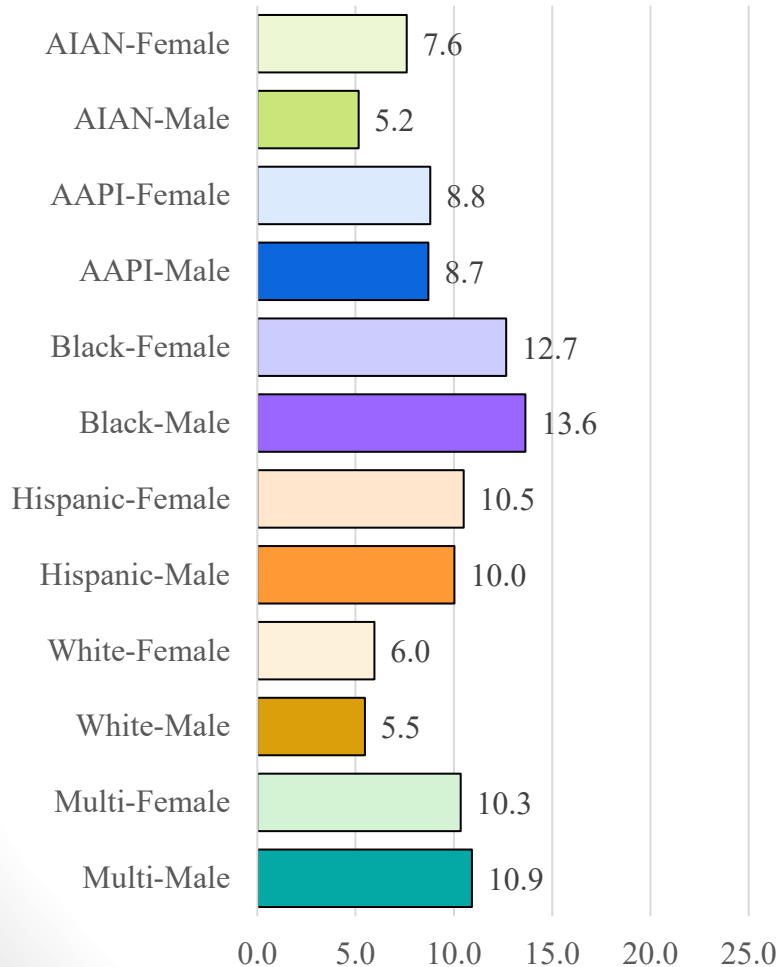


Percent of Special Education Teaching Positions filled by Teachers on an Emergency Permit by Percent of Students of Color in District

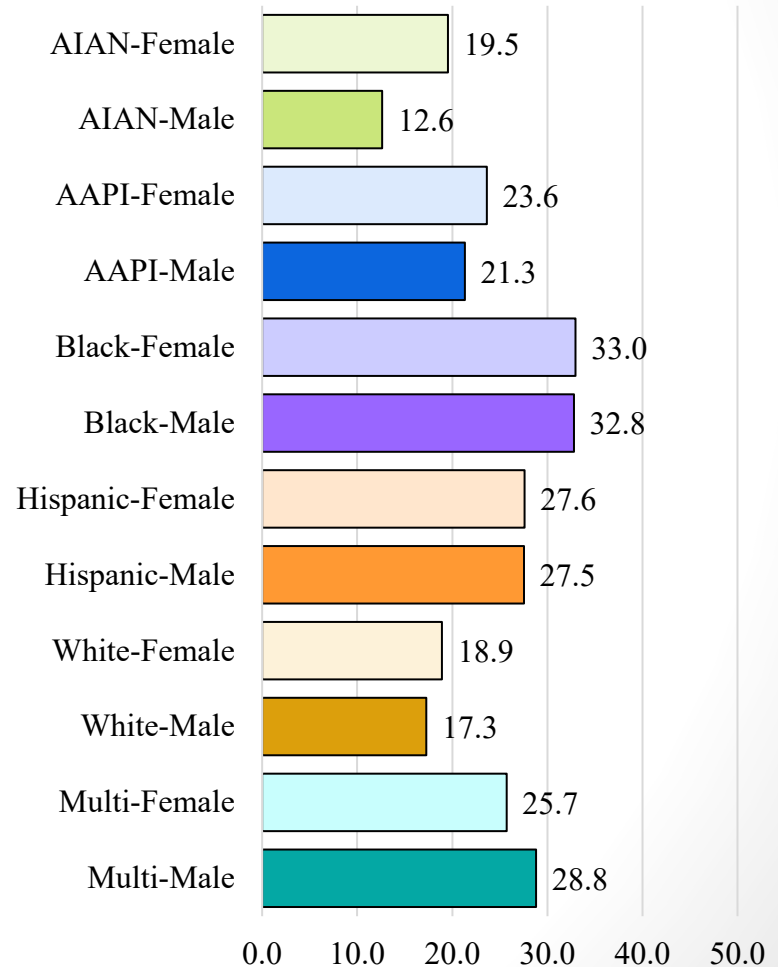


Teacher Attrition by Race/Ethnicity and Gender

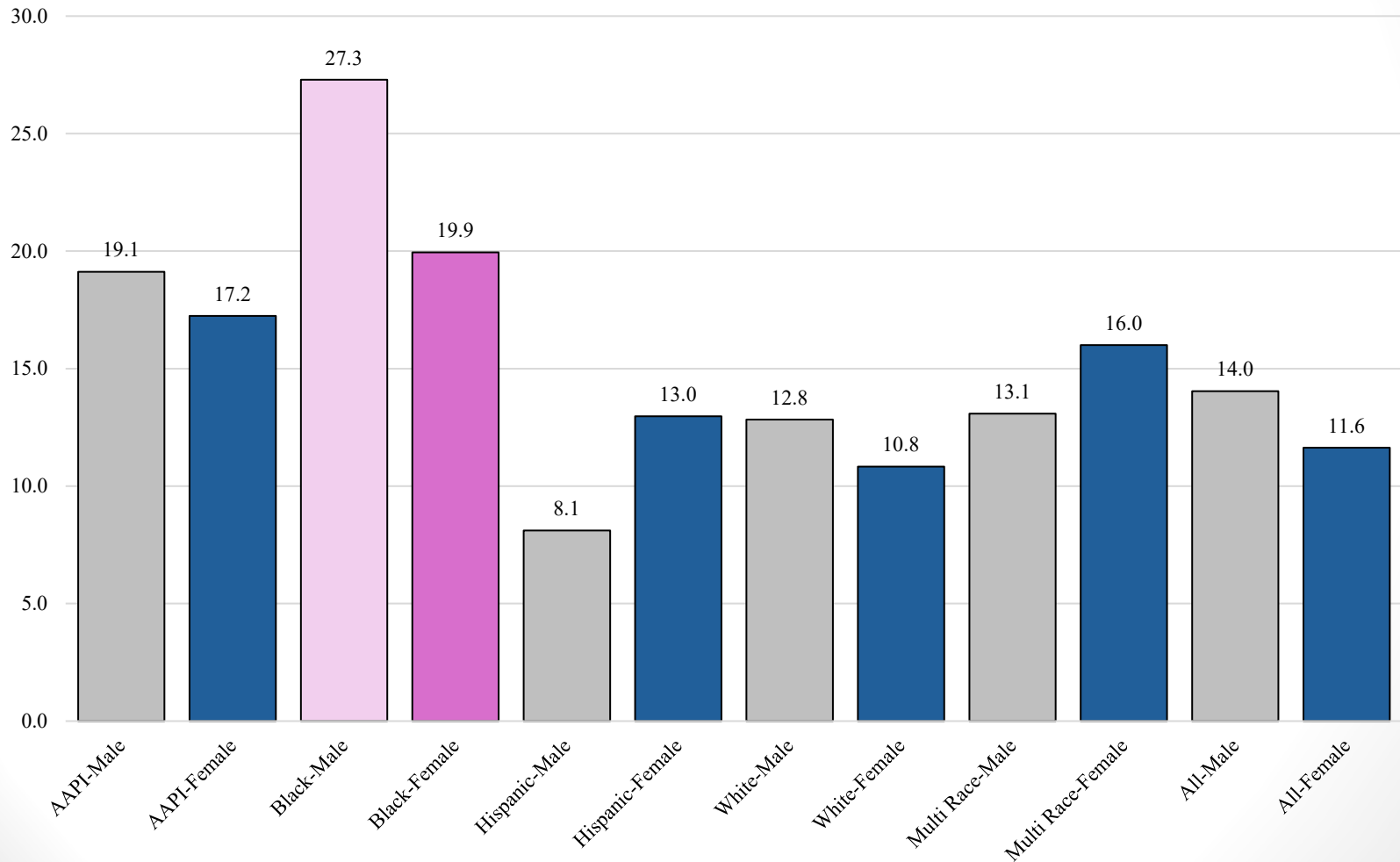
Average **One Year** Attrition Rate by Race/Ethnicity and Gender (2018-2024)



Average **Five Year** Attrition Rate for Three Cohorts by Race/Ethnicity and Gender (2018-2022; 2019-2023; 2020-2024)



Percentage of Beginning Teachers Leaving the Teaching Profession After One Year by Race and Gender (2018-2023 cohorts)



Questions?

Ed Fuller

ejf20@psu.edu