

Teacher Preparation, Localness, and Student Outcomes

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Teacher Preparation

- **Teachers are central to student learning** and strengthening the teaching workforce is an important policy goal for improving educational outcomes and **advancing equity** (e.g., Chetty et al., 2011; Hanushek & Rivkin, 2010)
- One way policymakers pursue this goal is through establishing **standards for teacher training and requirements for different professional certification** (e.g., Darling-Hammond et al., 2012)
- Prior research has investigated how *certifications/licenses, degrees, and specific preparation programs* are associated with teacher mobility and influence on student test scores, mostly finding **small effects** (e.g., Harris & Sass, 2011; Kane et al., 2008)

Teacher Preparation

- Generation over generation, states have sought to expand pathways into the profession, often focused on **prospective teachers from the local community** (e.g., Edwards & Kraft, 2024; Gelber, 2022)
- Recognizing these changes, our work builds upon the prior literature to:
 - Update it in light of **significant shifts in the teacher workforce** (e.g., growth in conditionally licensed/certified teachers) (e.g., Bacher-Hicks et al., 2023; Redding, 2022)
 - Examine how teacher “**localness**” is related to student learning outcomes (e.g., Boyd et al, 2005; Reininger, 2012)

What is Localness?

Localness

the extent to which a teacher has experiences in the community in which they teach

Grew Up Locally



Recruiting teachers with strong local ties may strengthen the workforce by:

- **Increasing Retention and Stability:** *Local teachers may be more likely to stay in their school and community*
- **Diversifying the Pipeline:** *local recruitment may increase diversity making the workforce more reflective of populations they serve*
- **Building Stronger Relationships:** *Teachers with shared community ties may build deeper connections with students and their families*
- **Improving Instruction:** *Local knowledge may help teachers understand student needs and connect instruction to student experiences*

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Localness in the Blueprint

SUBTASK 2.2.6(b)

A Grow Your Own (GYO) Educators Grant Program shall provide support to eligible individuals who are interested in pursuing a career in the teaching profession and ultimately pledge to fulfill a service obligation as a teacher employed full-time in a high-needs school, grade level, or content area in the State in which there is a shortage of teachers, as identified by MSDE

MSDE shall administer the Grow Your Own Educators Grant Program.

To be eligible for the GYO Program, a teacher candidate applicant shall both:

- be employed as a noncertified education support professional or provisional teacher by a participating LEA on the effective date of the Program;
- and meet the educational requirements determined by a collaborative of at least one LEA, at least one employee organization representing employees of an LEA, and at least one IHE with a teacher preparation program approved by MSDE.

No more than one quarter of the GYO Grant Program funds used to support teaching candidate applicants may be used to support teacher candidate applicants who are conditional teachers.

Localness in the Blueprint

Grow Your Own: Creating an Educator Youth Apprenticeship. As another Grow Your Own strategy, City Schools is building a youth apprenticeship model that will help us support our students to and through the educator pipeline. As discussed in our March 2023 submission and noted in the feedback we received from the Accountability and Implementation Board, the Teacher Academy of Maryland Career and Technology Education (CTE) pathway we had in place as a route to the teaching profession for our high school students needed to be re-envisioned. Our new vision for this work focuses on developing our student population as a potential talent pool for these roles and leans into a Grow Your Own model of registered youth apprenticeship to create pathways to careers as educators. This strategy creates a significant number of registered youth apprenticeship opportunities for our youth, addressing early childhood educator roles in Pillar 1, Career Ladder pathways in Pillar 2, and moving towards the 45% Maryland Blueprint apprenticeship goal in Pillar 3.

Local Ties Strengthen the Teacher Workforce

- **Grew Up Locally:** Teachers are more likely to work near their hometown or where they were trained (Boyd et al., 2005; Reininger, 2012), and are retained for long periods of time in the same school and/or districts (Boyd et al., 2011).
- **Trained Locally:** Alignment between characteristics of student teaching experiences and first school predict student test-score gains (Goldhaber et al., 2017); Local recruitment programs may increase the diversity of the teacher workforce (Blazar et al., 2024; Edwards & Kraft, 2024).
- **Worked Locally:** Former teaching aides are more effective at improving student outcomes and more likely to stay (Fortner et al., 2015)

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- **Worked Locally:** Former teaching aides are more effective at improving student outcomes and more likely to stay (Fortner et al., 2015)
- However, we know less about how growing up locally impacts students' learning outcomes, nor have different dimensions of localness been brought together in a modern analysis.

Research Questions

1. How does the Maryland teaching workforce display different dimensions of localness?
 - a. Grew Up Locally
 - b. Trained Locally
 - c. Worked Locally
2. To what extent do these different components of teacher localness predict student learning outcomes?
3. Is localness related to retention in the teacher workforce?

MLDS Analytic Data (2013-2024)

- Newly hired teachers & their characteristics:
 - New Teachers: those appearing for the first time in the MLDS K12 Staff records as teachers.
 - Characteristics: license/certification, prior aide experience, demographic characteristics.
 - Excludes: individuals with prior experience as a teacher or with an “advanced” certification or positions.

- Link newly hired teachers to their students:
 - Identify each student’s teacher for tested subjects & grades
 - 3rd - 8th grade, ELA & Math.
 - Excludes: students with more than one ELA or Math teacher in a given year.

Operationalizing Localness

Localness

the extent to which a teacher has experiences in the community in which they teach

Grew Up Locally

- *Attended HS in MD*
- *Attended HS in same LEA*

Trained Locally

Worked Locally

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- *Received TAM certificate*
- *Attended a MD Teacher Prep Program*

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- *Prior work as an aide in MD public school*

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Conditional License/Certification Pathway

Increase Retention and Stability

Diversify the Workforce

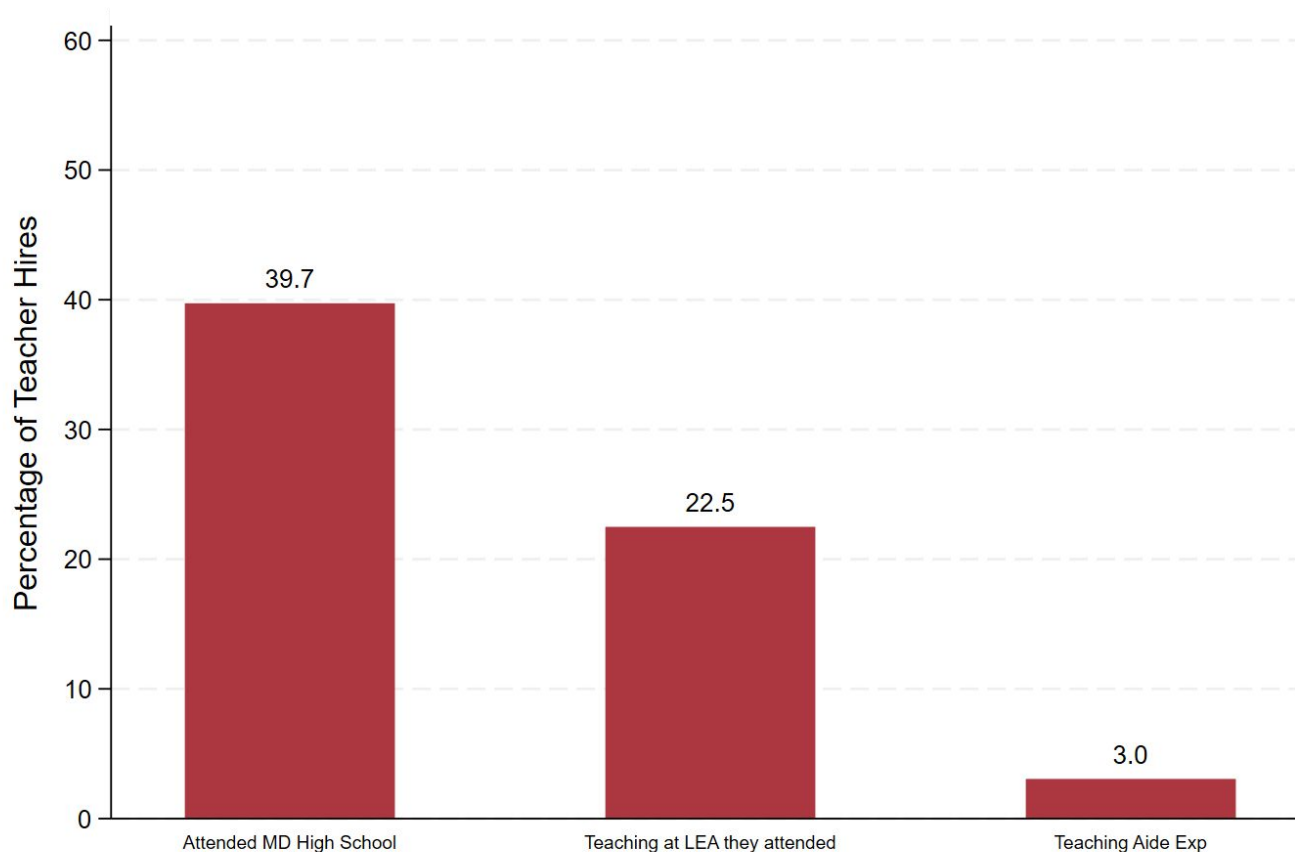
Build Strong Relationships

Improve Instruction

RQ 1: How does the Maryland teaching workforce display different dimensions of localness?

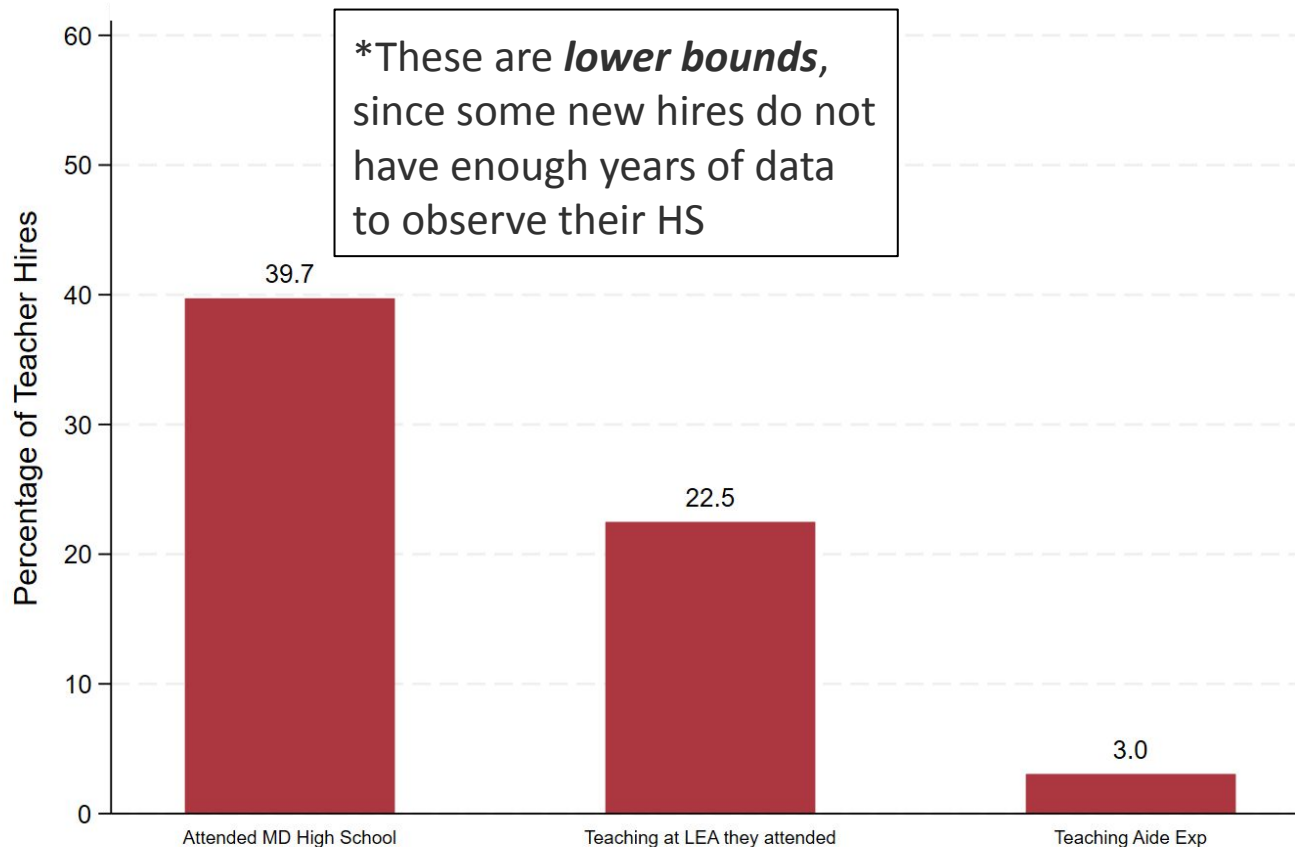
Like other states, MD has a large share of teachers from the state/same LEA

**Percentage of New Teacher Hires by “Local” measures
2013-2023**



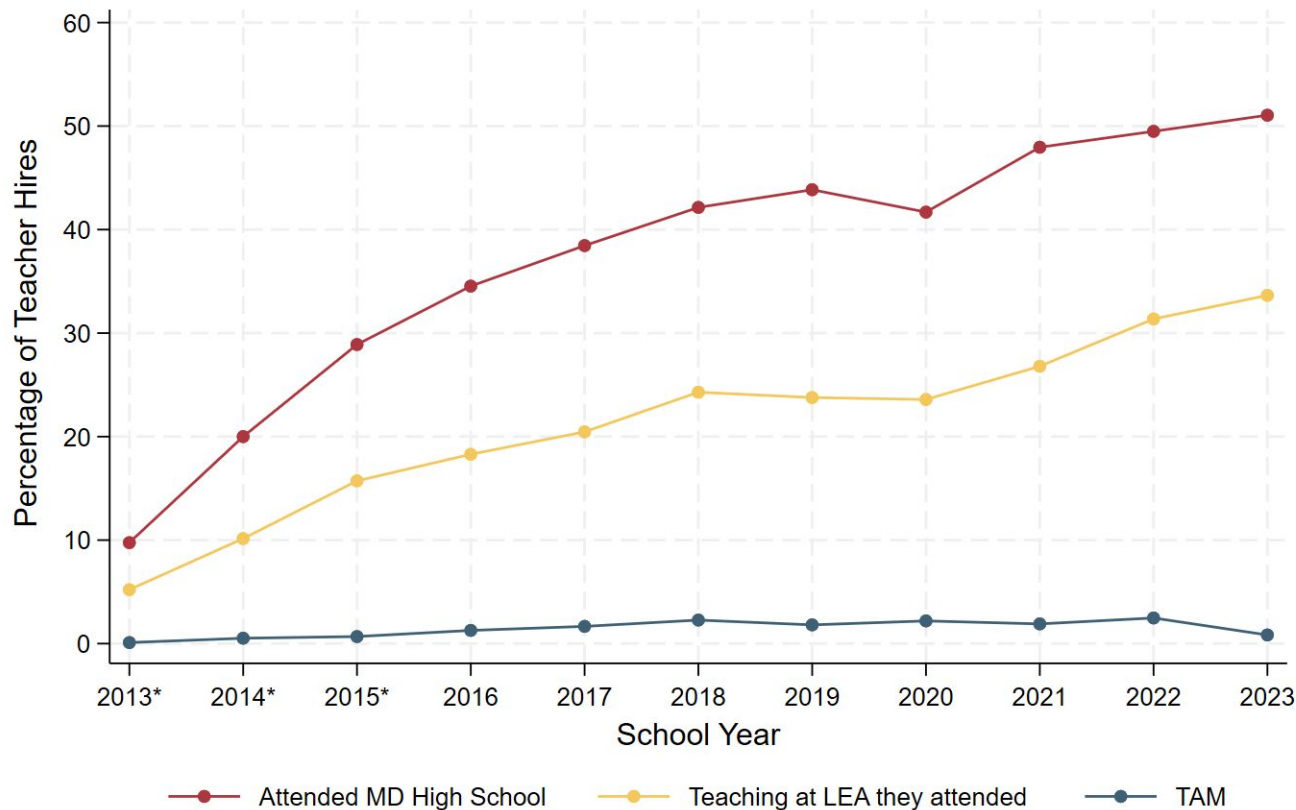
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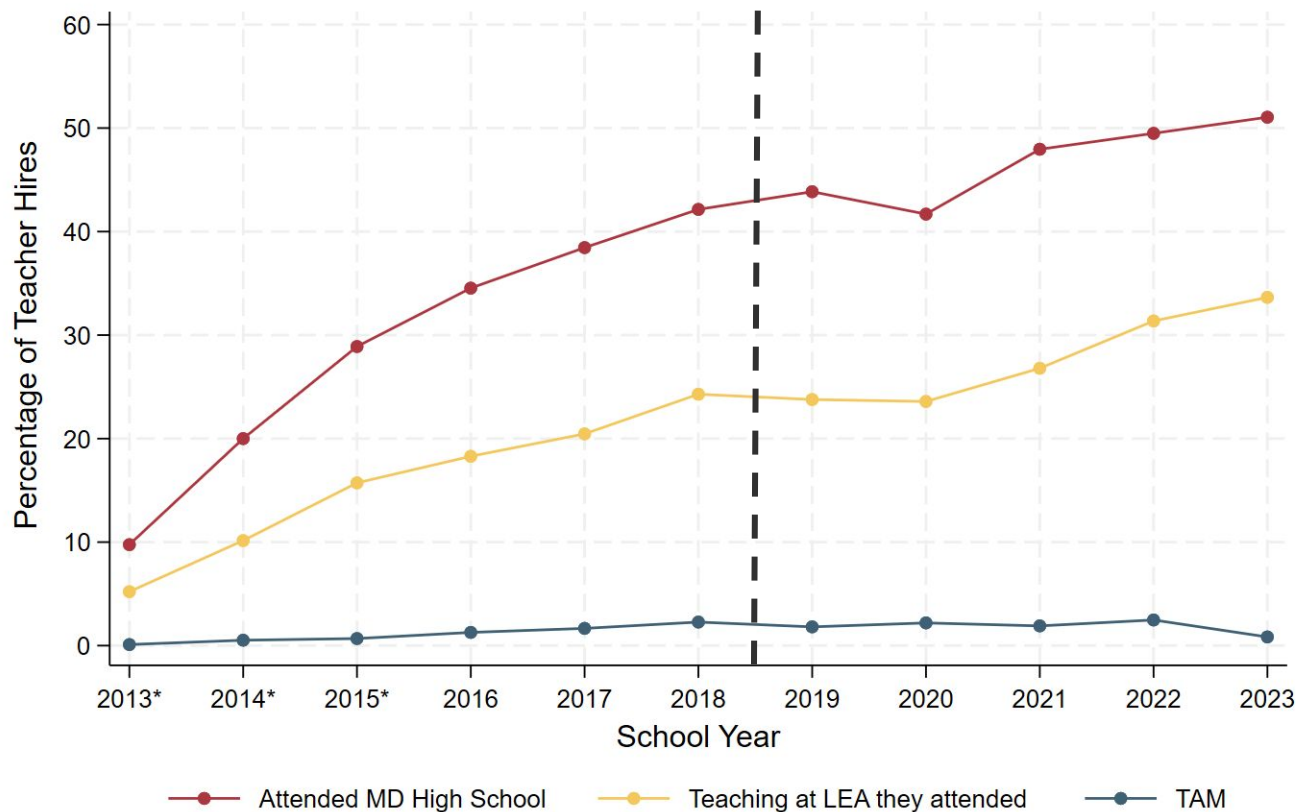
Relevance of newly hired teachers with a Maryland high school background also rises

**Percentage of New Teacher Hires
by “Grew up” and “Trained” locally measures**



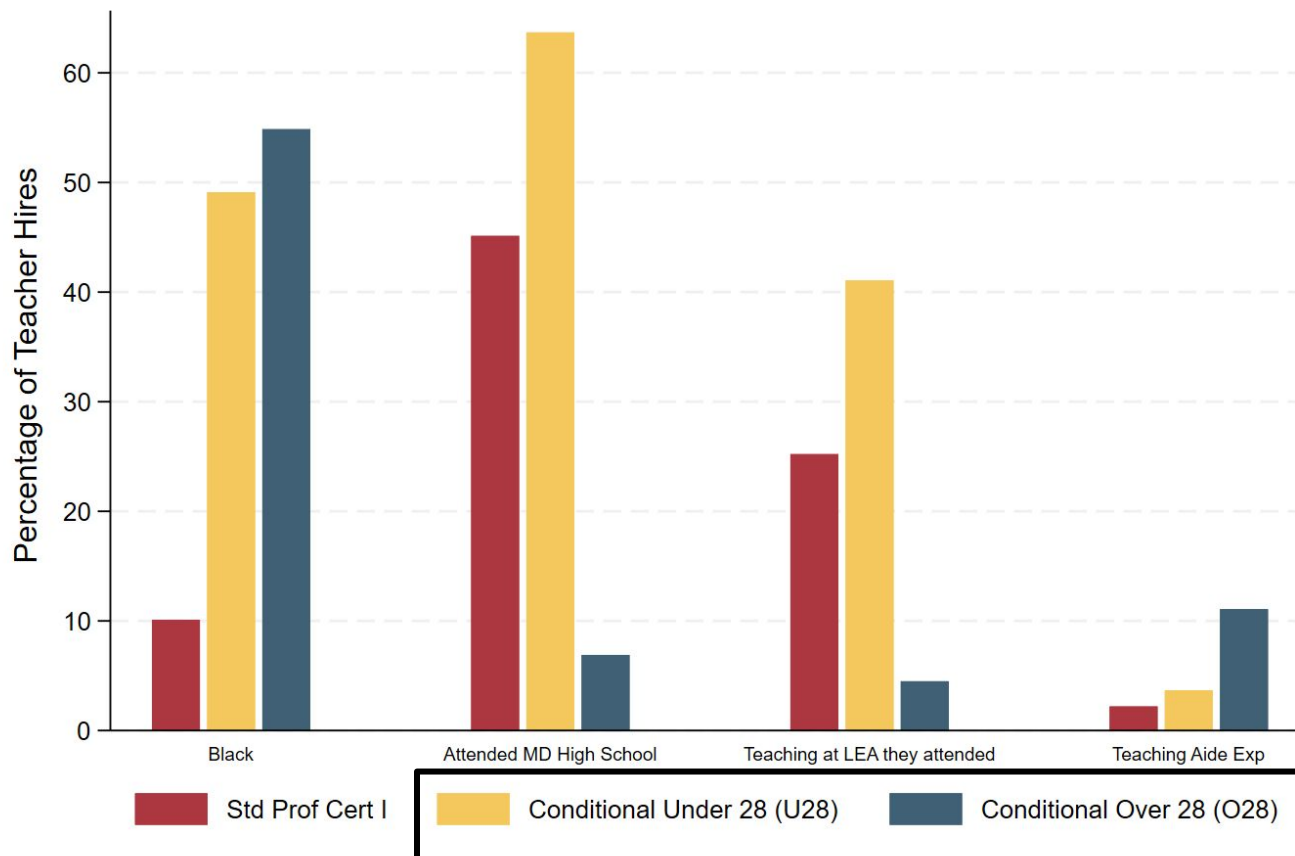
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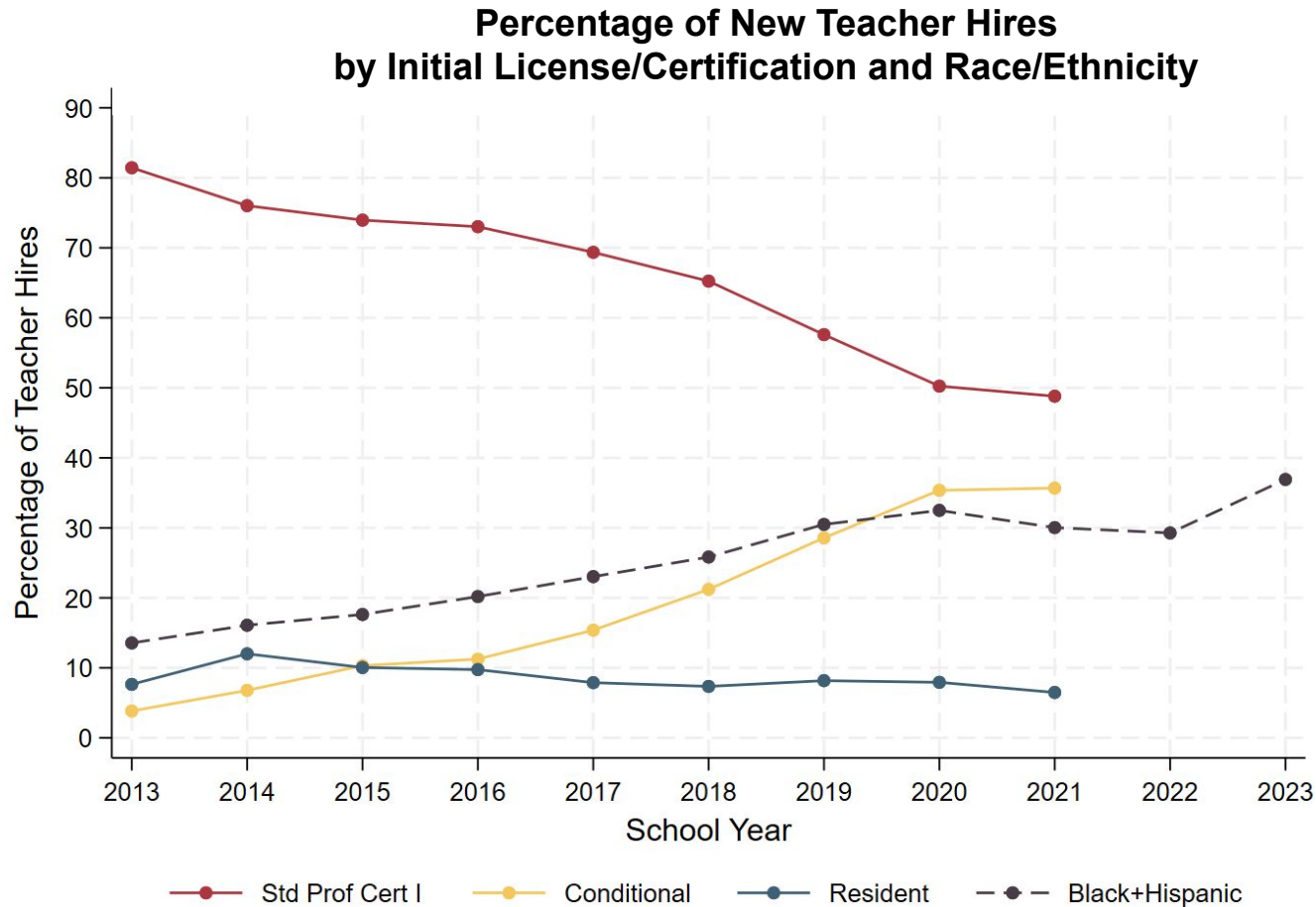


Conditionally certified new teachers are more likely to be “local”

Percentage of New Teacher Hires by Initial License/Certification
2013-2023

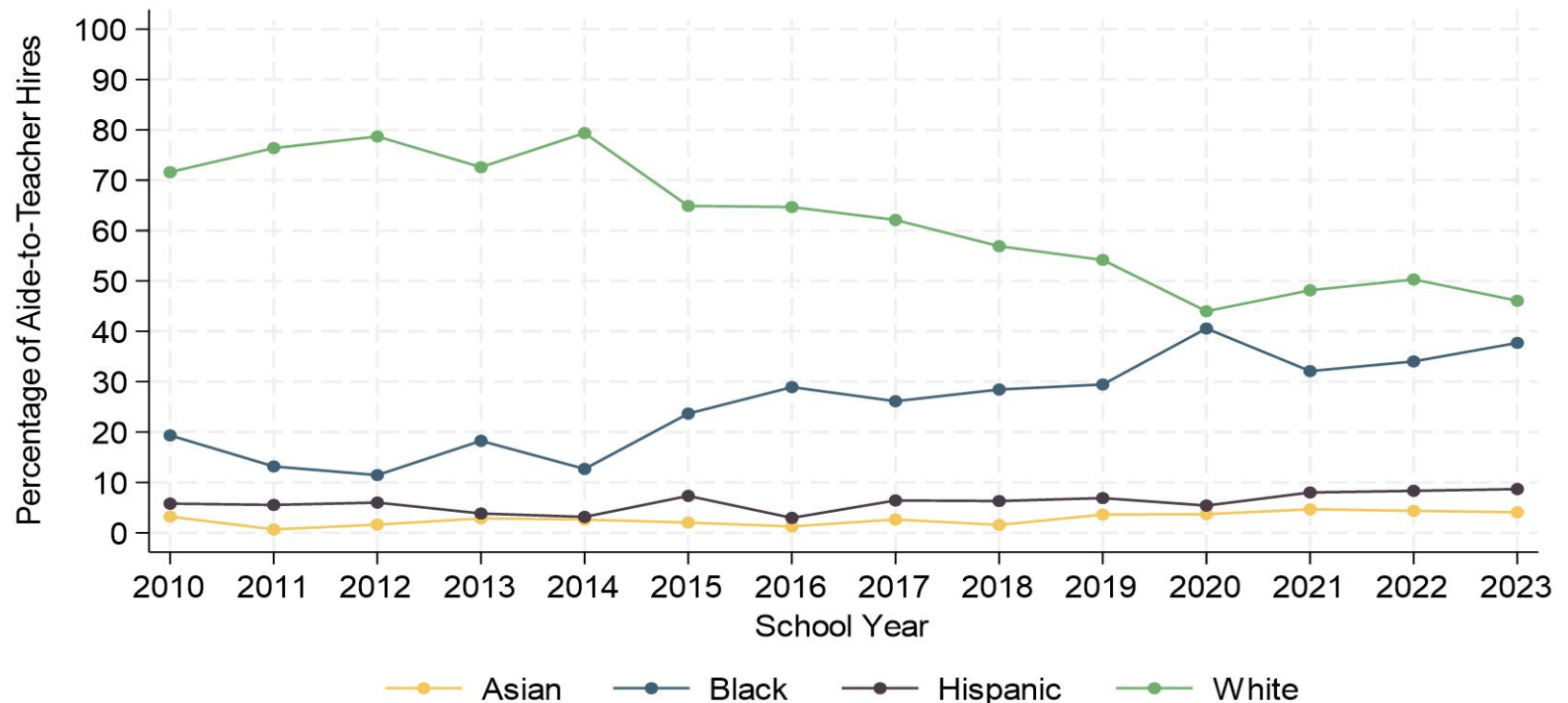


New hires with conditional license/certificate are increasing with Black and Hispanic teachers

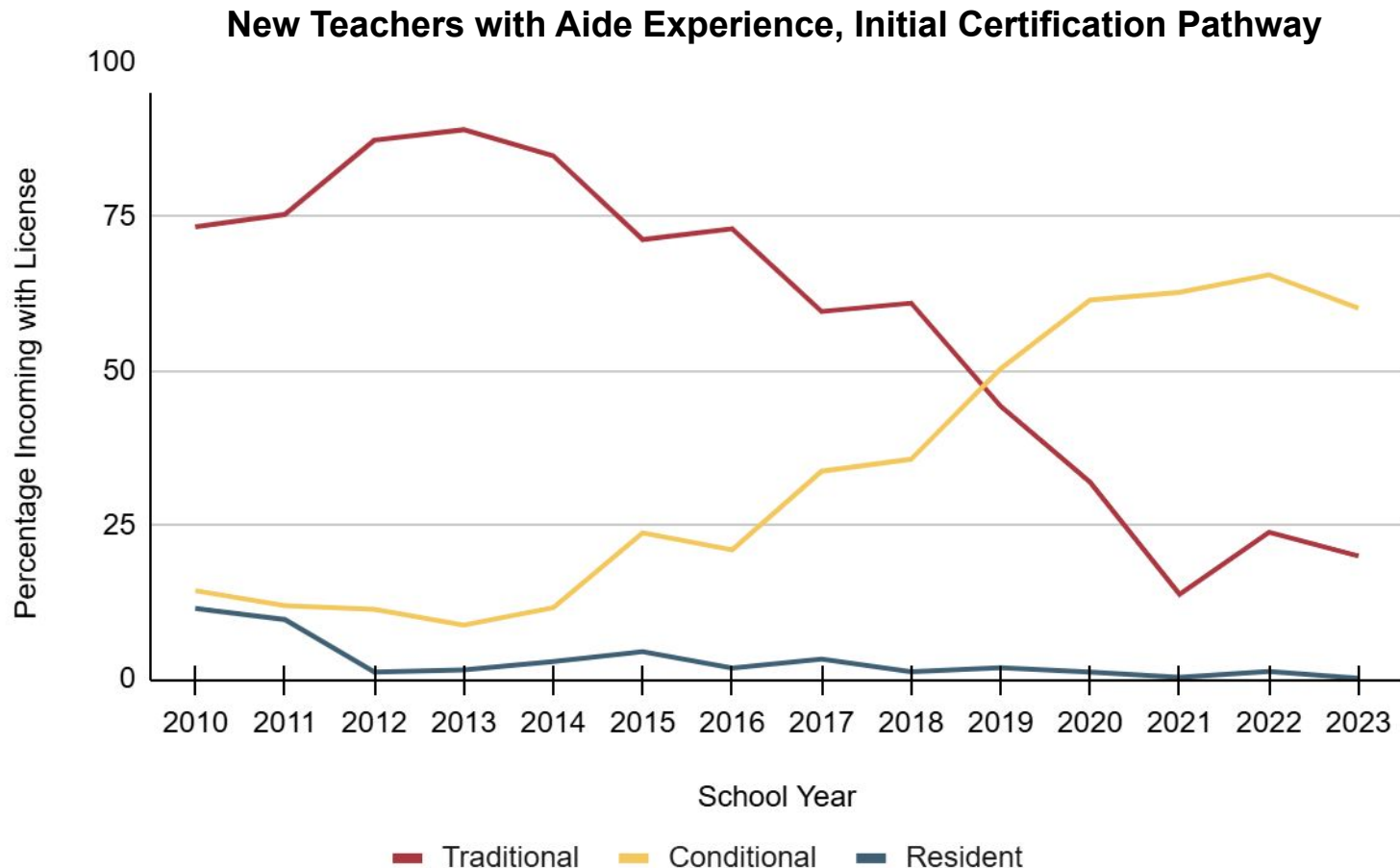


New hires with aide experience are both increasing and increasingly likely to be Black

Percentage of New Teacher Hires with Aide Experience by Race/Ethnicity

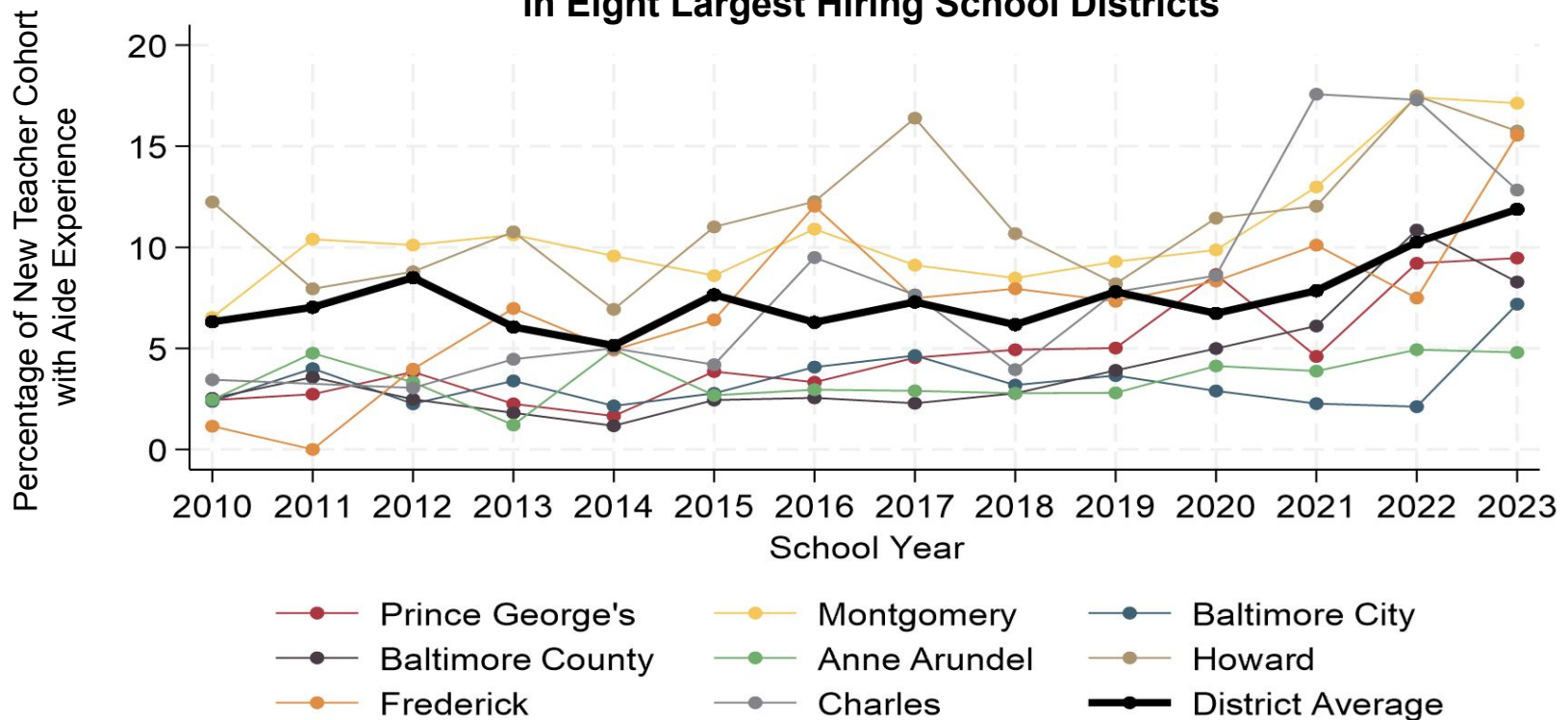


Aides converting to teachers increasingly rely on conditional certifications for licensure



Districts increasingly rely on aides as a source of new teachers, but some more so than others

**Percentage of New Teacher Hires with Aide Experience
in Eight Largest Hiring School Districts**



Note: Shows districts with more than 200 new teachers hired yearly on average, ordered largest to smallest

RQ 2: To what extent do these different components of teacher localness predict student learning outcomes?

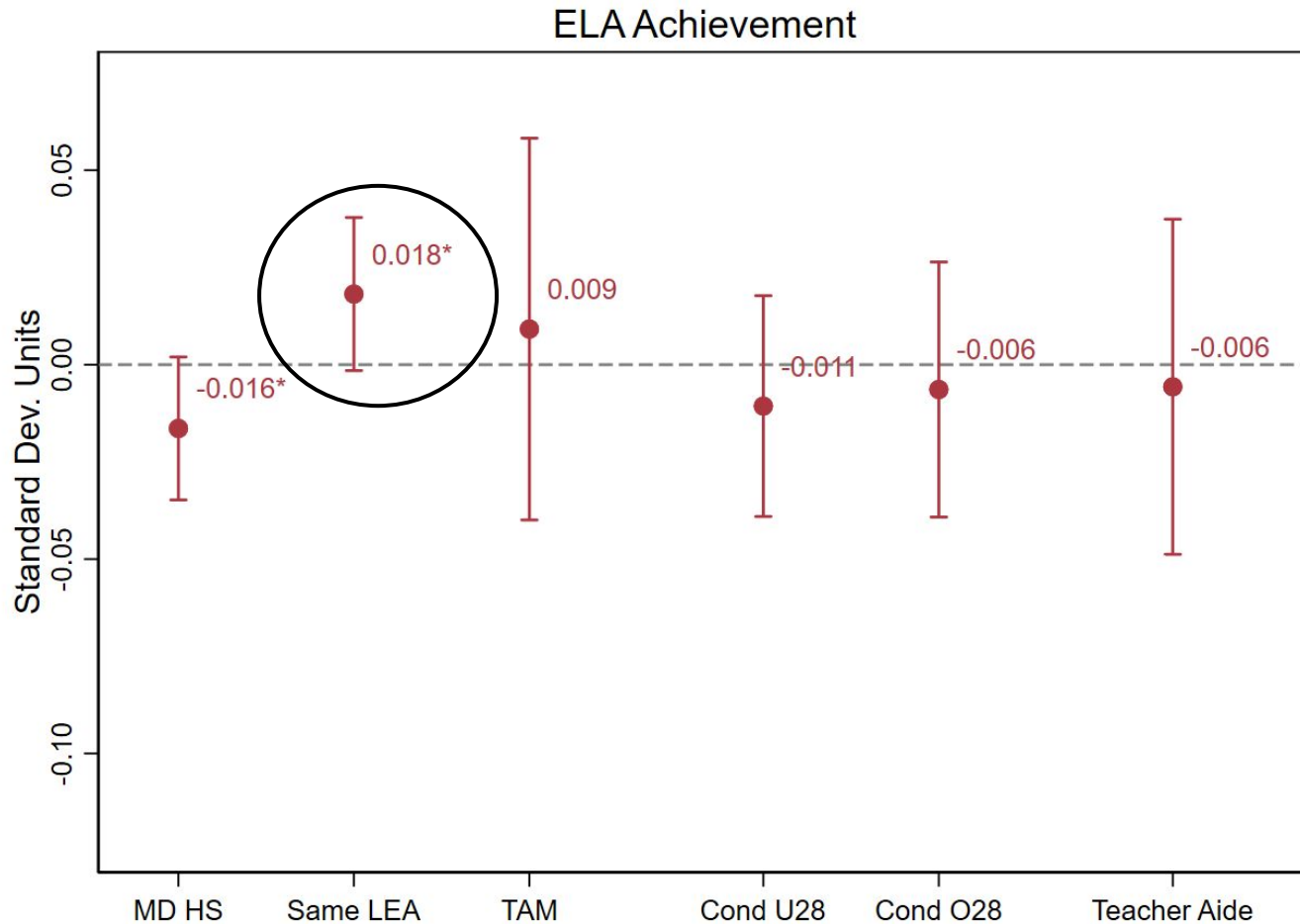
Analytic Approach

- Value Added Model
 - Estimates a teacher's contribution to student test-score outcomes by comparing how much their students scores **grew** on average.

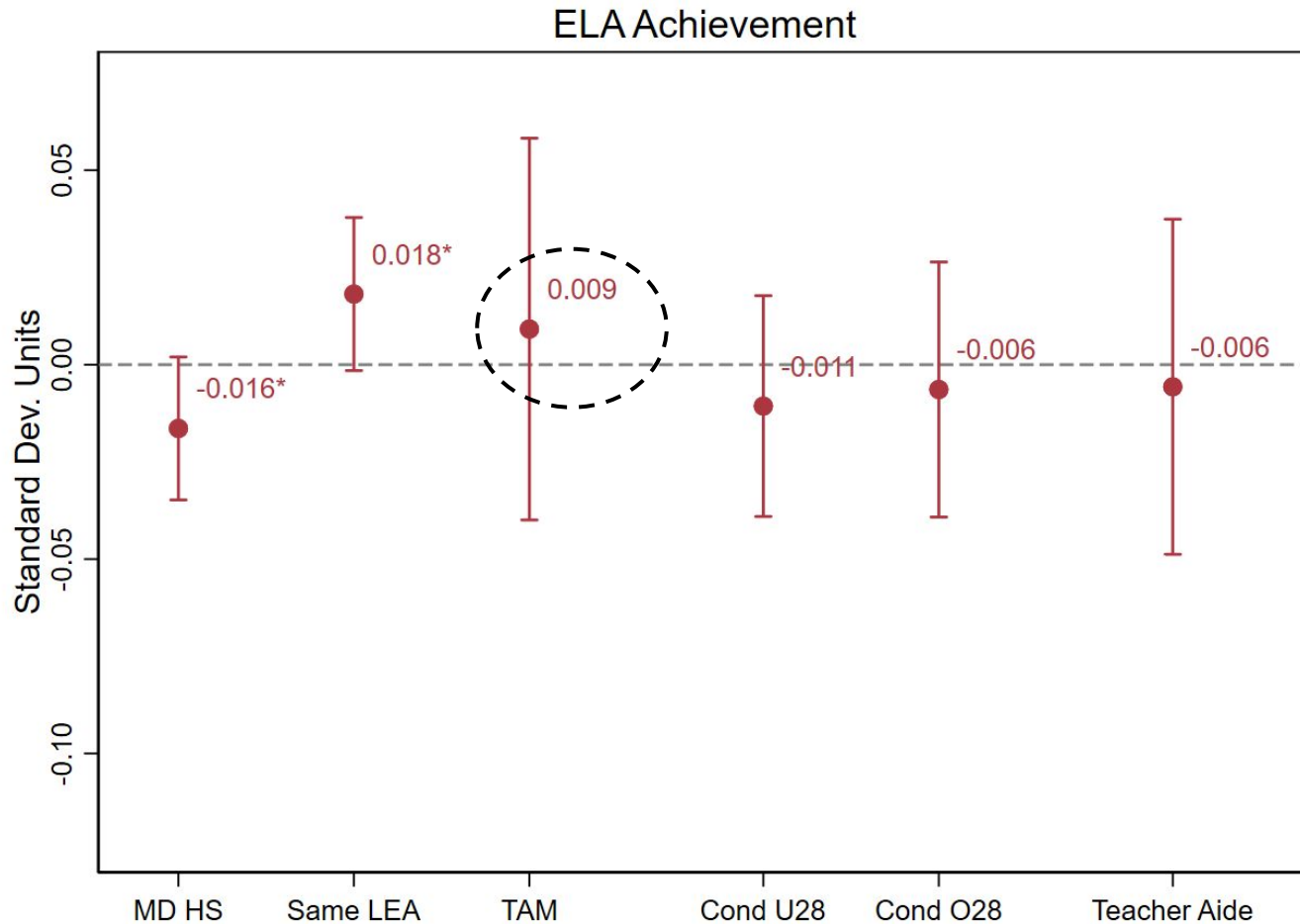
$$A_{it} = \alpha_i + \sum_j [\beta_f TCF^{(j)} + \beta_v TCV_t^{(j)}] D_{it}^{(j)} + \sum_s [\pi_s] S_{it}^{(s)} + \tau_{gt} + \epsilon_{it}$$

- We are interested in how characteristics of teachers, their training, and their prior work are associated with differences in how much they contribute to student learning.

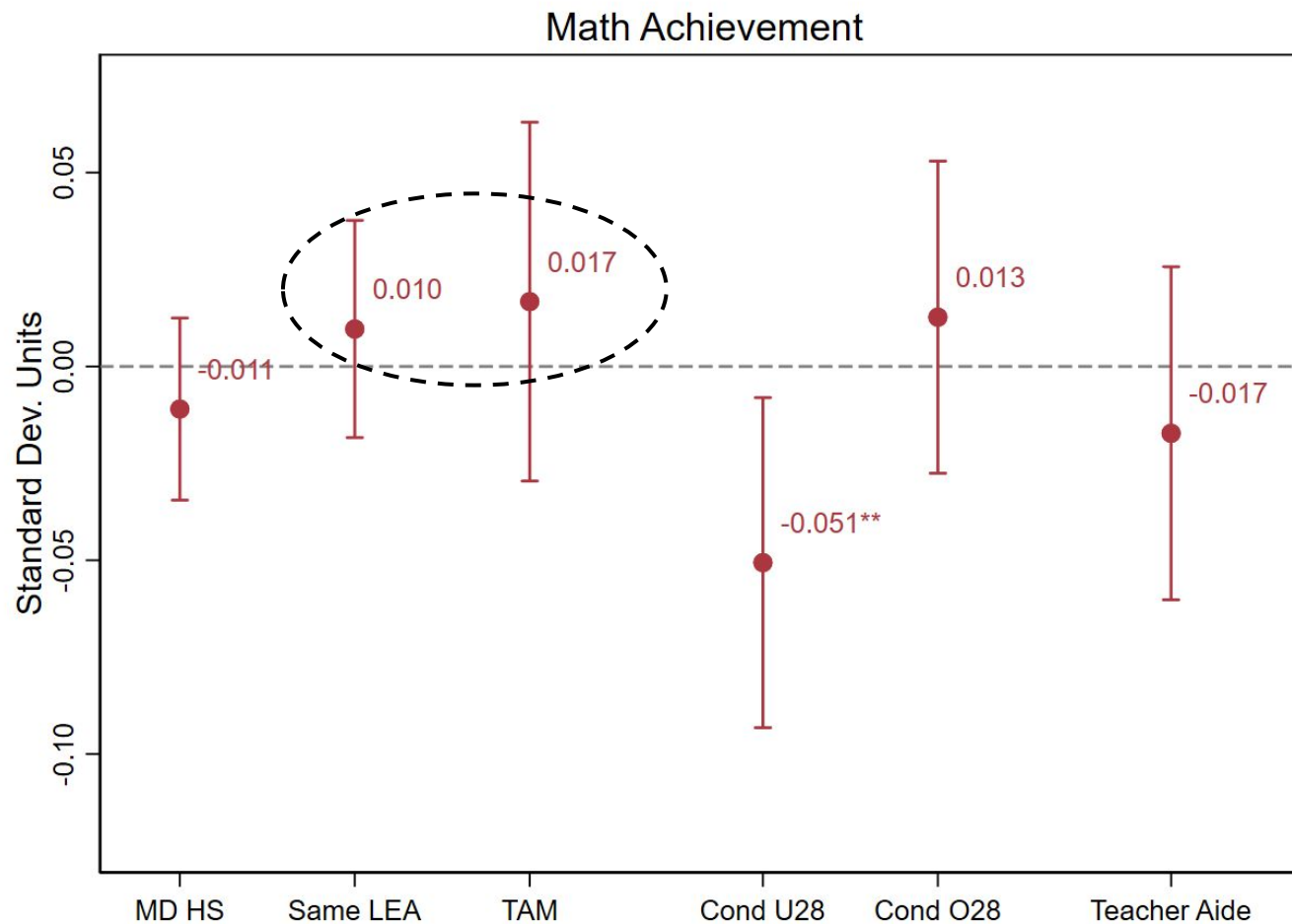
ELA teachers in the same LEA they attended in high school yield better student performance



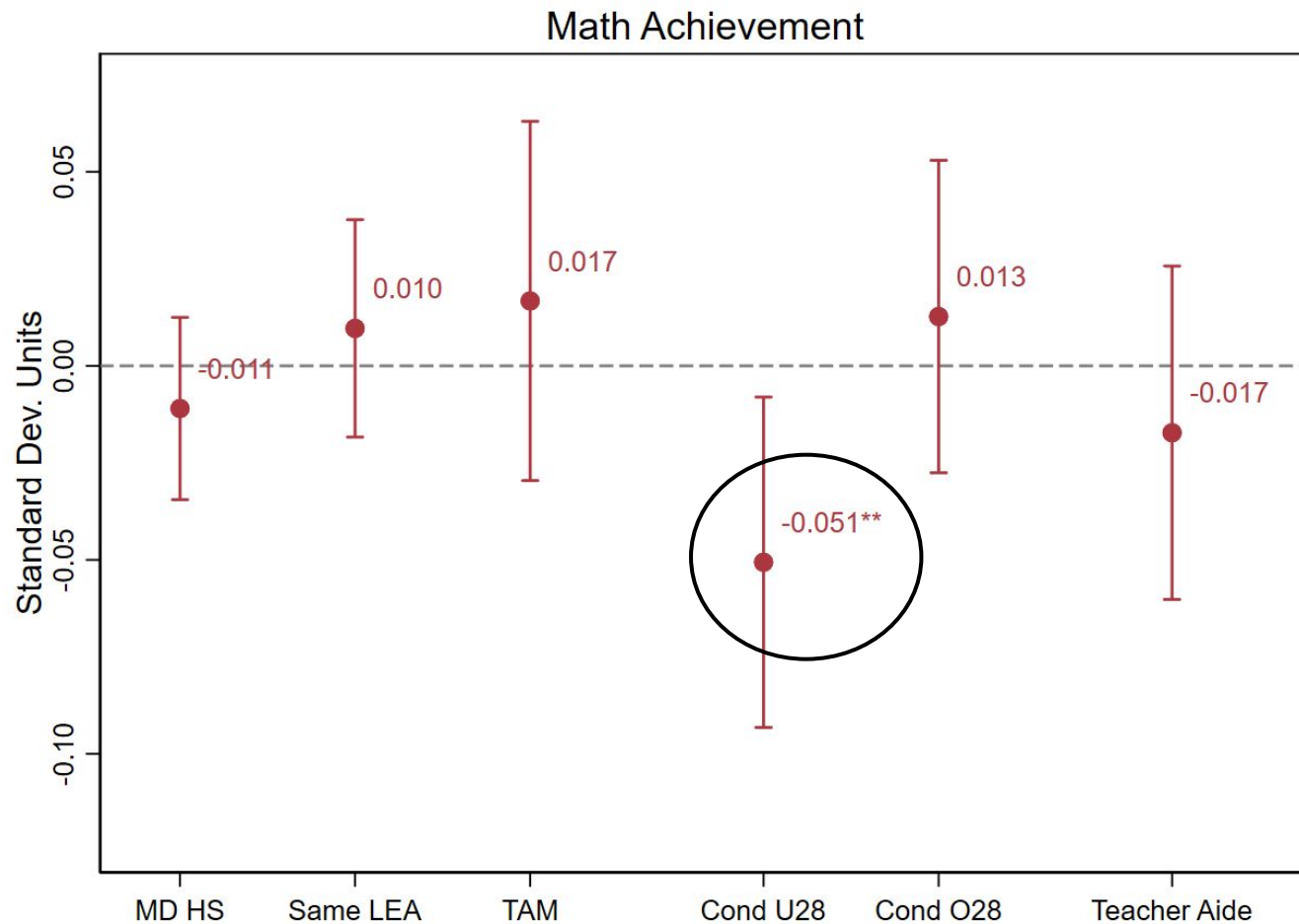
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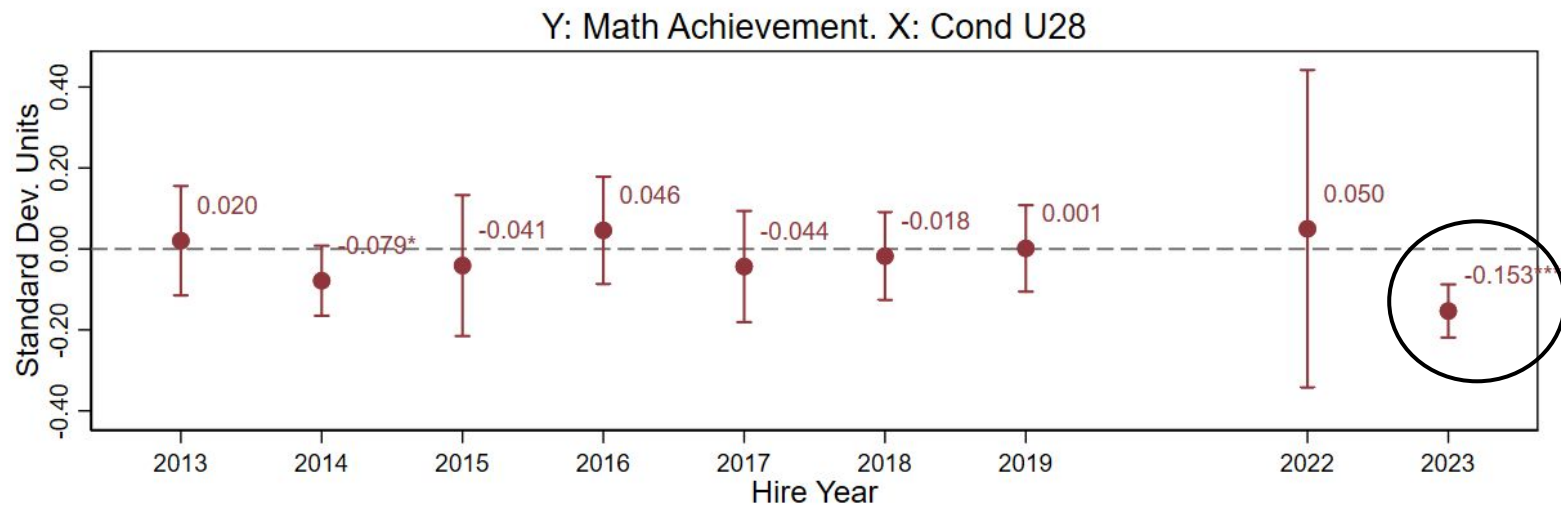
In *math*, patterns differ to some extent



Young conditionally certified *math* teachers appear to yield lower scores at first...

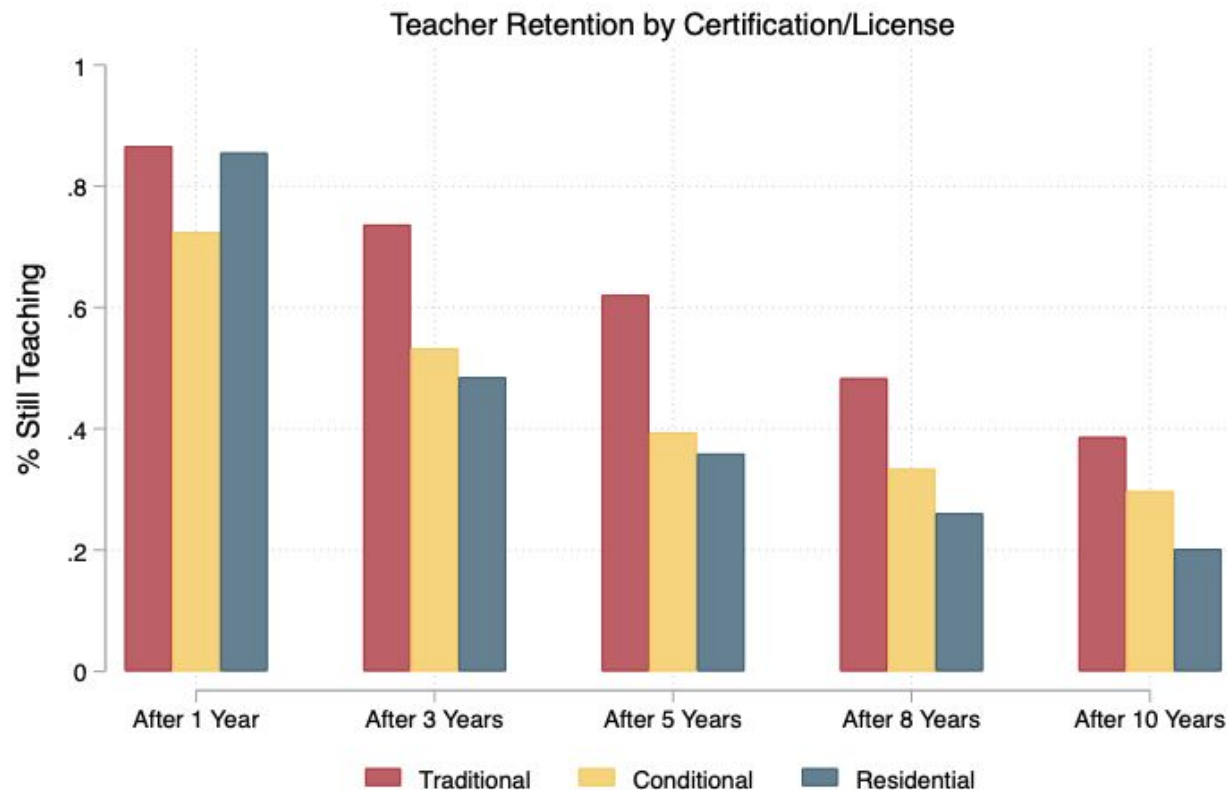


... However, this seems driven by a single teacher cohort



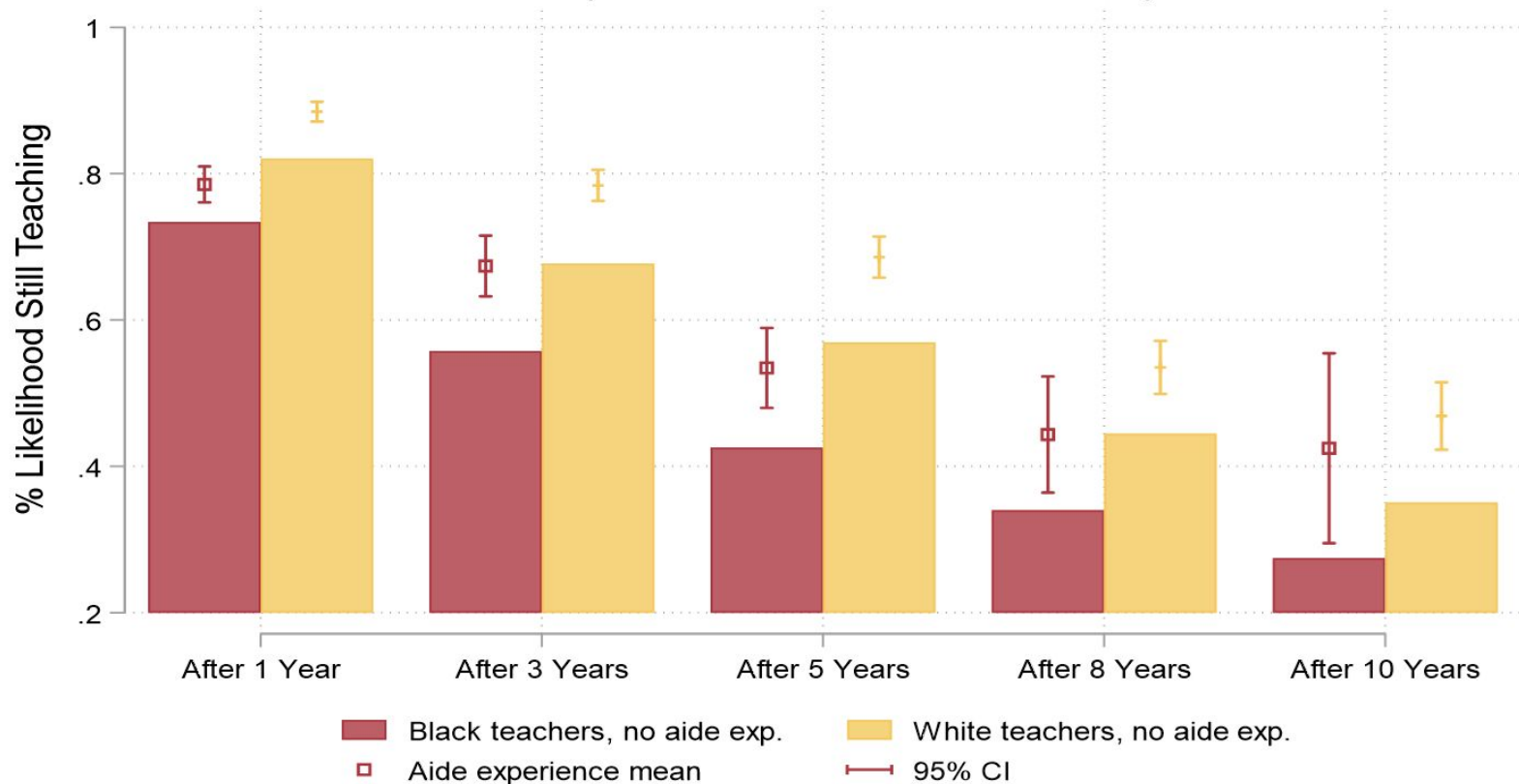
RQ 3: Is localness related to retention in the teacher workforce?

Conditionally certified/licensed teachers are less likely to stay in the profession than traditionally certified teachers



Aides who become teachers are more likely to stay in the profession, regardless of race

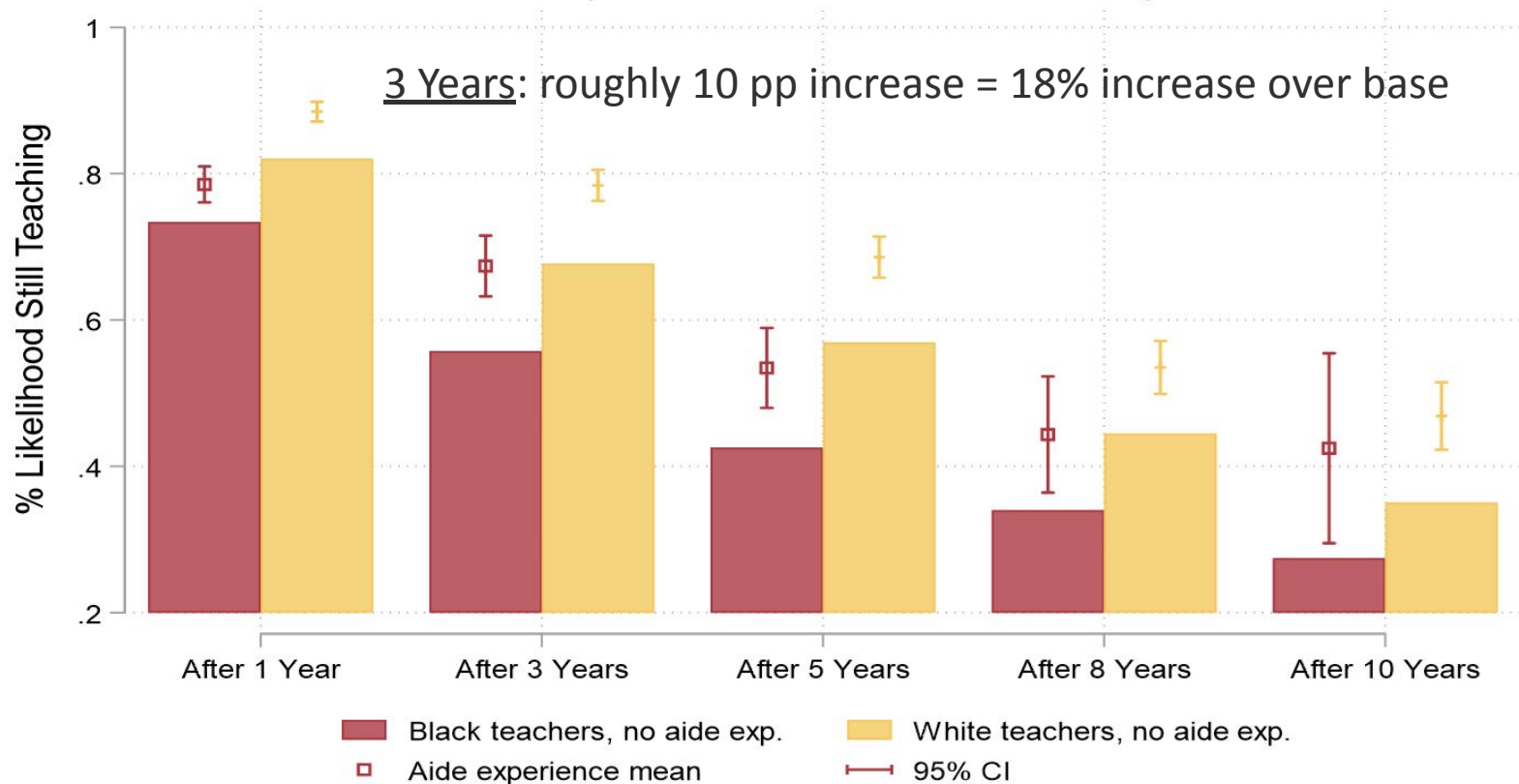
Prior Aide Experience and Teacher Retention, by Race



*Estimates come from regression models with school fixed and entry year effects, comparing teachers in the same school and year.

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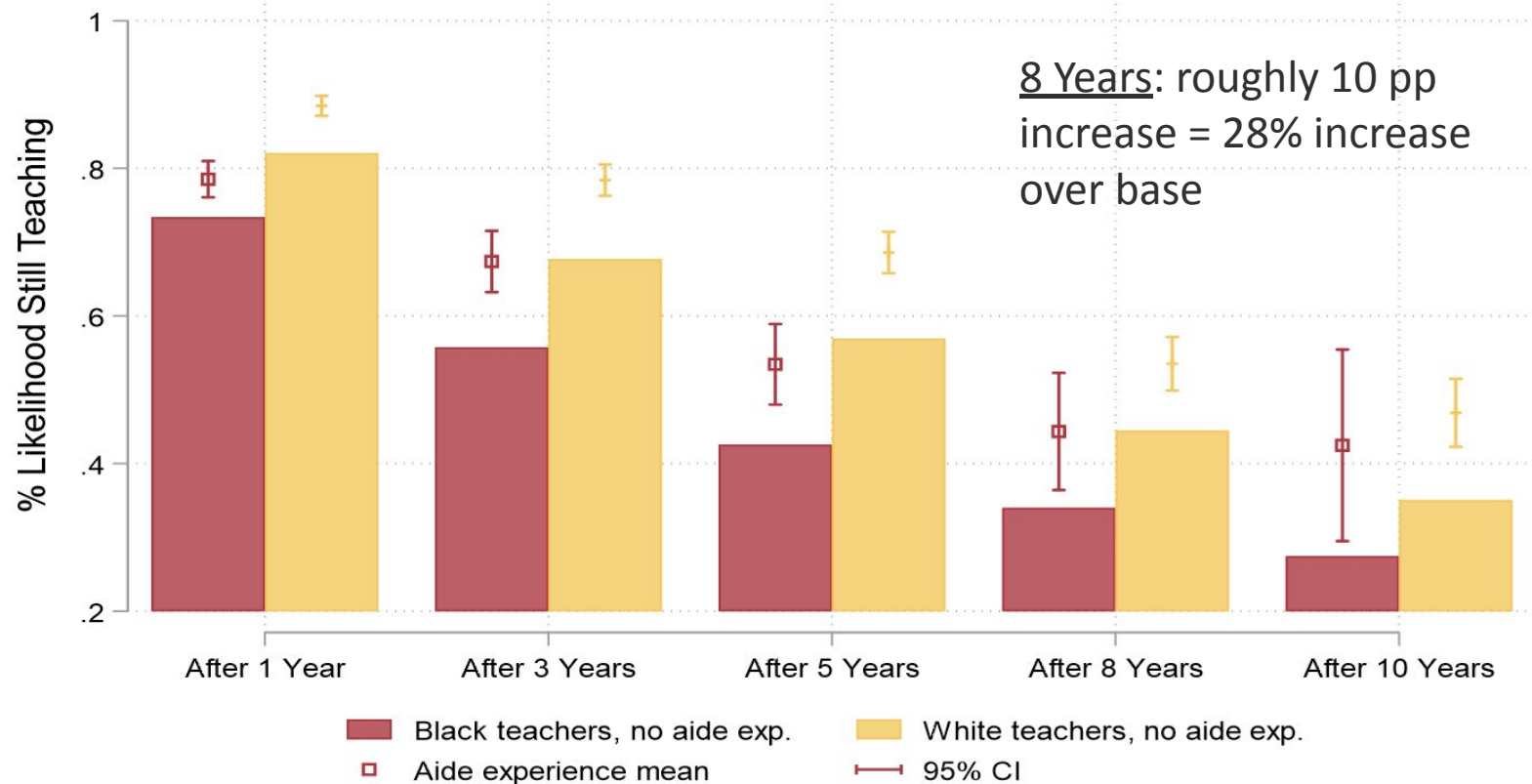
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Takeaways

- An increasing share of teachers are entering classrooms in Maryland communities where they have prior ties.
- Localness does not confer monolithic benefits to student outcomes or school systems.
 - Different aspects of localness impact test-score outcomes differently (e.g., living close to home benefits ELA scores).
 - Teachers with prior aide experience stay in teaching longer and are no less effective than those without aide experience.
- “Grow Your Own” (GYO) efforts that are focused on localness *also* are not monolithic and may need to consider which specific dimensions they want to target

Next Steps

- Constructing additional measures of localness:
 - Trained in-state vs out-of-state.
 - Prior aide experience *in the same school*.
 - Others?
- Examining heterogeneity in the association between localness and student learning outcomes across:
 - Teachers' years of experience (e.g., negative associations to student outcomes for conditionally licensed/certified teachers in *first year* may dissipate by year 2 or 3)
 - Geographic locale

Questions?

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