

# CULTIVATING A THRIVING MATH TEACHER COMMUNITY: STRATEGIES FOR RETENTION & GROWTH

Alliance District Symposium  
April 2025



**UConn**  
UNIVERSITY OF CONNECTICUT



The Connecticut State Department of  
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# WELCOME TO THE STAFF LOUNGE!



# THE MARIGOLD EFFECT



## DO NOW:

Read the *Find Your Marigold: The One Essential Rule for New Teachers* article. As you read, consider how the metaphor of marigolds applies to teacher retention, particularly in math education.

- Who has been a “marigold” in your teaching career?
- What impact did they have?

# **CONTEXT & SIGNIFICANCE**

How big a problem are math teacher shortages and turnover where you work?

- A major problem
- A minor problem
- Not a problem

To what extent is your system implementing proactive strategies to retain math teachers?

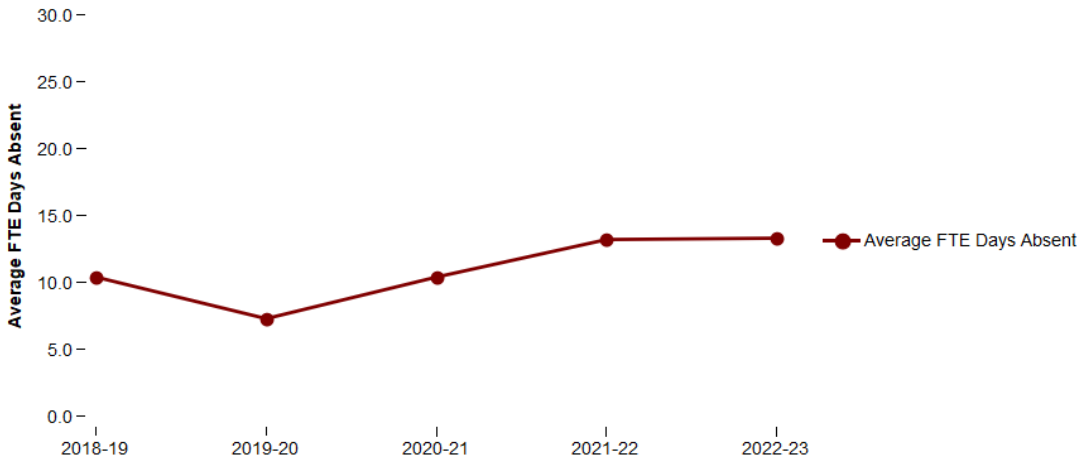
- Actively implementing
- Making progress
- Getting started
- Haven't thought about it or haven't started



# CT CLASSROOM TEACHER ATTENDANCE, TREND

Average FTE Days Absent					
	2018-19	2019-20	2020-21	2021-22	2022-23
State of Connecticut	10.4	7.3	10.4	13.2	13.3

**Classroom Teacher Attendance - Average FTE Days Absent**  
State of Connecticut  
Trend



# IMPACT OF TEACHER ABSENCES

- **Student Achievement:** A teacher missing 10 days has been shown to lower student achievement in math by an amount equivalent to students being taught by a beginner teacher versus a teacher with 3 to 5 years of experience. These effects are especially pronounced for elementary school students.
- **District Finances:** By one estimate, the nation's school districts spend approximately \$4 billion annually to find and hire substitute teachers. On average, teacher absences cost districts an additional \$1800 per teacher per year, based on data from a 2017 study.

Source: [National Council on Teacher Quality Report, 2020](#)

# NATIONAL TEACHER SHORTAGE

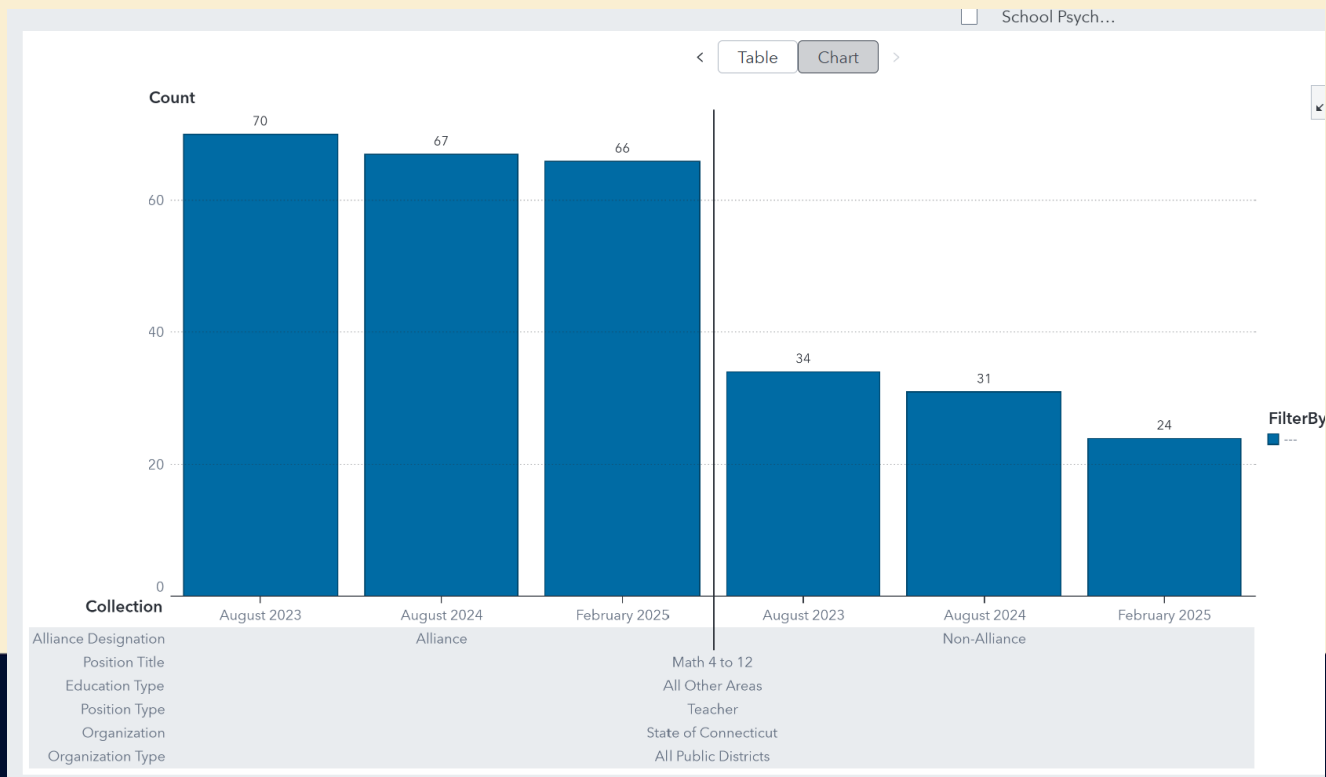
A national teacher shortage has aggravated attendance challenges.

- As of October 2022, 45% of all public schools, 57% of public schools in high-poverty neighborhoods, and 60% of public schools with a high-minority student body had at least one vacant teaching position.
- Teachers, particularly those in schools that serve the most systematically marginalized students, may be more likely to experience burnout due to the additional workload and coverages required to fill needs that result from vacancies.

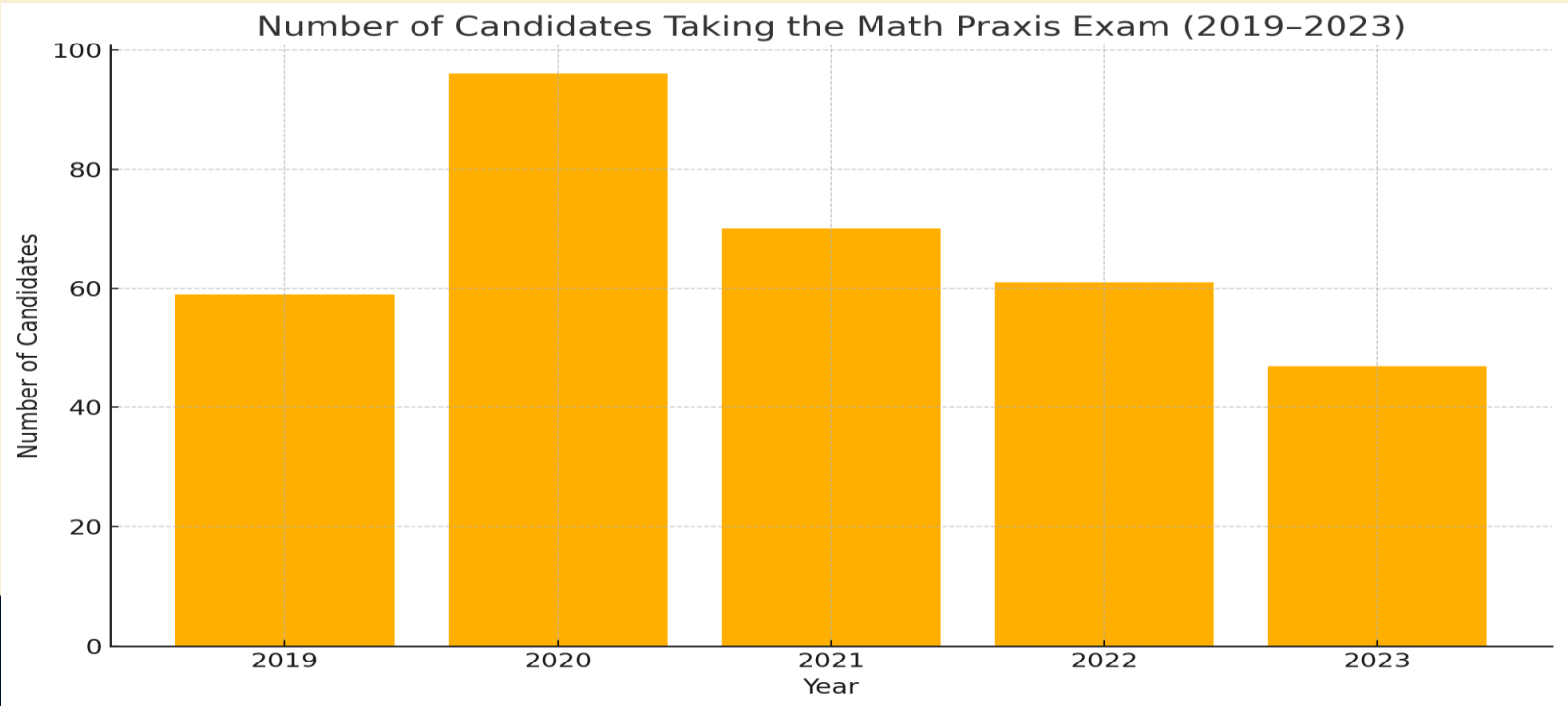
Source: National Council for Education Statistics, 2022



# MATH TEACHER VACANCIES – ALLIANCE VS. NON-ALLIANCE DISTRICTS



# CERTIFICATION ISSUANCE - MATHEMATICS



# **UNDERSTANDING THE CHALLENGE**

# WHY DO MATH TEACHERS LEAVE?



What are some common reasons  
you've seen math teachers leave?

# **PROTECTING OUR UNICORNS**



## Who are the unicorns?

Unicorn teachers are those exceptional educators who bring creativity, deep content knowledge, and a passion for student success. These teachers are rare and retaining them requires intentional efforts.

### Retention Strategies:

- Create a Supportive Ecosystem
- Leadership Pathways Without Leaving the Classroom (build teacher leaders!)
- Ensure Your Unicorns Have Their Own Marigold Network

What are ways we can support our unicorn math teachers?

# INCREASING LEADERSHIP CAPACITY FOR EXPERIENCED MATH TEACHERS

Provide opportunities for leadership without leaving the classroom:

- Lead PLCs, curriculum teams
- Mentor early-career teachers
- Engage in action research

Reflection:

What leadership opportunities exist in your district? Where are the gaps?

\* 1. In the past year, a leader at my school... (select all that apply)

- Put me in charge of something important
- Provided me with access to additional resources for my classroom
- Encouraged me to continue teaching at my school next year
- Recognized my accomplishments publicly
- Provided me with regular, positive feedback
- Identified opportunities for me to pursue teacher leadership roles
- Informed me that I am high performing
- None of the above



# **VOICES FROM THE FIELD**

# PANEL DISCUSSION

## Topics:

- What keeps math teachers that you work with engaged and motivated?
- What are the biggest retention challenges?
- What strategies have made the biggest impact in your district/school?
- How can leadership best support math teachers?

# IDEA CIRCUIT

# LET'S TALK...

- What current retention strategies are working in your school/district?
- What challenges do your math teachers face that impact their decision to stay?
- How can you implement the Marigold Effect in your school?
- What immediate steps can leadership take to improve retention?
- How can you ensure your unicorn teachers feel valued and supported?

# FINAL TAKEAWAYS

# FINAL TAKEAWAYS & NEXT STEPS

- **Teacher retention is a shared responsibility that requires intentional strategies.**
- **Identify one next step to improve math teacher retention in your district.**
- **Foster a “marigold culture” that supports teachers at every level.**
- **Advocate for teacher voice in decision-making.**



# THANK YOU

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