

From Foundations to Futures

PostSecondary Readiness



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From Foundations to Futures

A PD Series on Readiness, Access, and Alignment



**Joint Position
Statement**

**Launch
Year's**

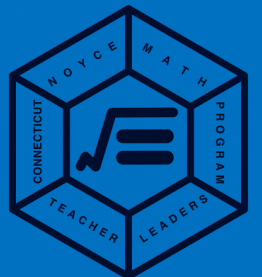
**Post-
Secondary
Readiness**

Pathways

**Common
Content**

**Middle
School
Acceleration**

**K-8
Grade level**



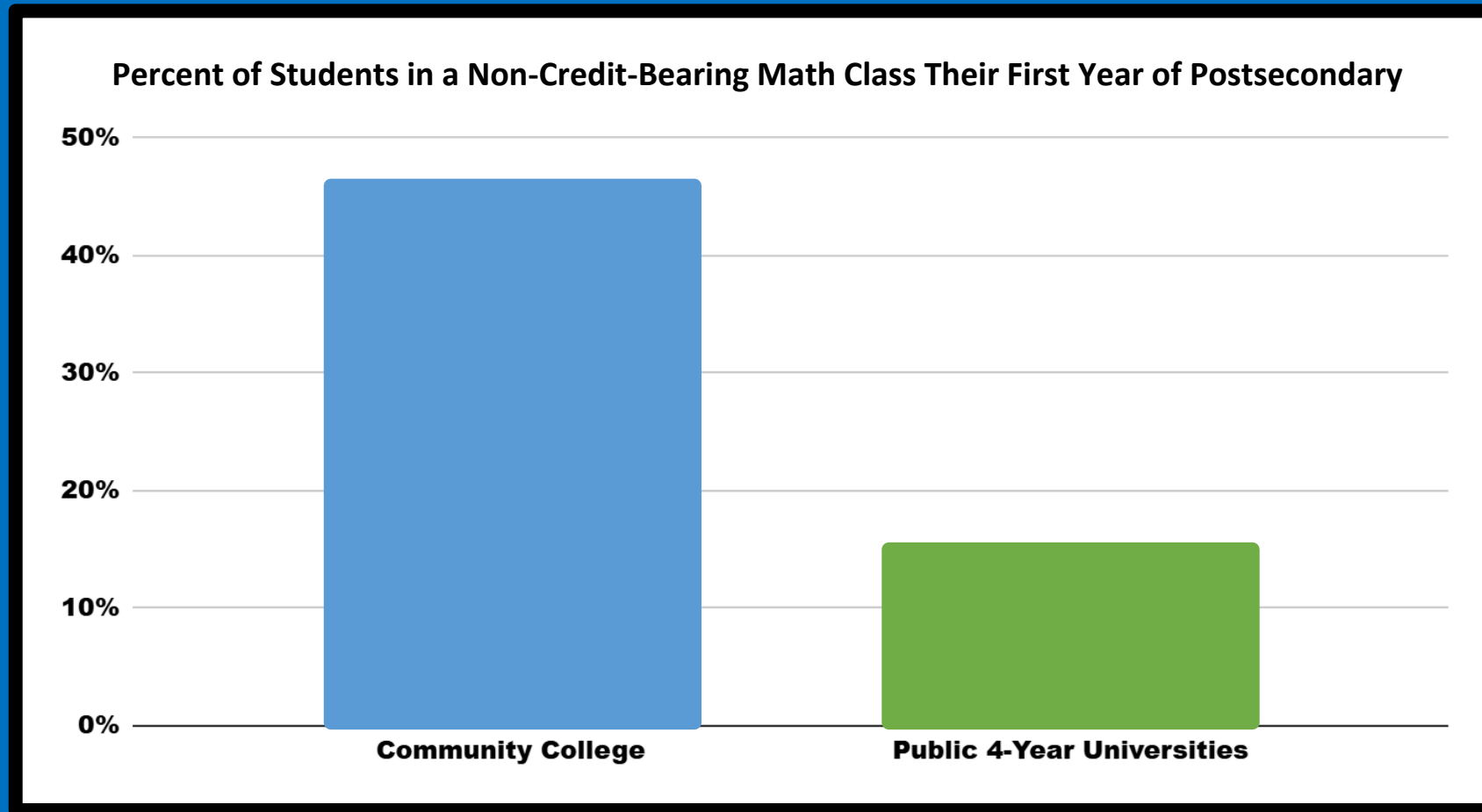
The Problem

There is a **disconnect** between **postsecondary math education** readiness and the math courses that students are encouraged to take in **high school**.





The Problem



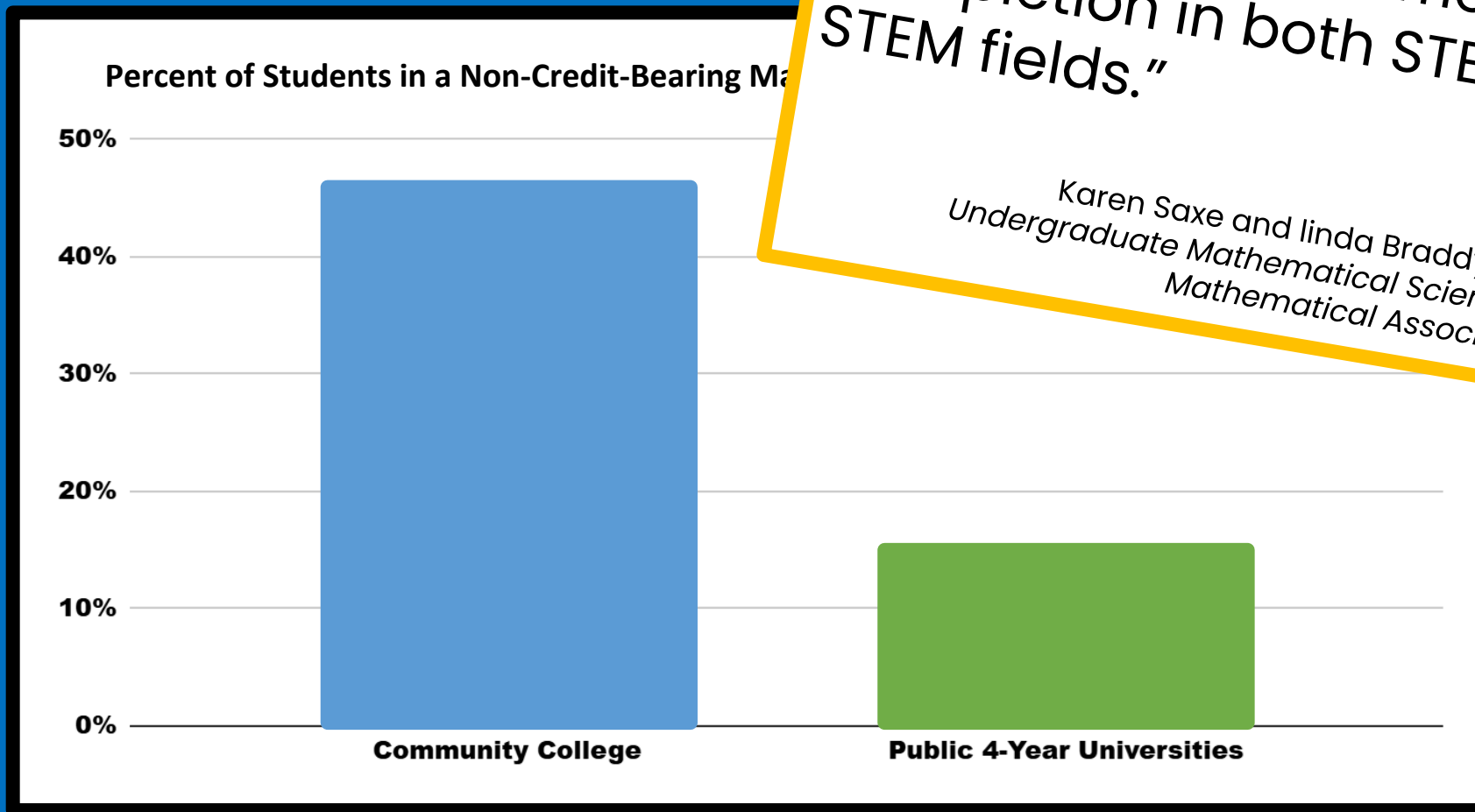
US Department of Education: Remedial Course taking at U.S. Public 2- and 4-Year Institutions: Scope, Experience, and Outcomes (Chen, NCES 2016-405)



The Problem

"Mathematics courses are the most significant barrier to degree completion in both STEM and non-STEM fields."

Karen Saxe and Linda Braddy, *A Common Vision for Undergraduate Mathematical Sciences Programs in 2025*, Mathematical Association of America, 2015



US Department of Education: Remedial Course taking at U.S. Public 2- and 4-Year Institutions: Scope, Experience, and Outcomes (Chen, NCES 2016-405)



Webinar Overview

This presentation will focus on

1

How to improve **support and guidance for students'** secondary mathematical journey that aligns with their post-secondary **goals and aspirations**

2

Encourage **informed adjustments** to secondary math experiences and offerings to ease students' transition from high school into postsecondary life



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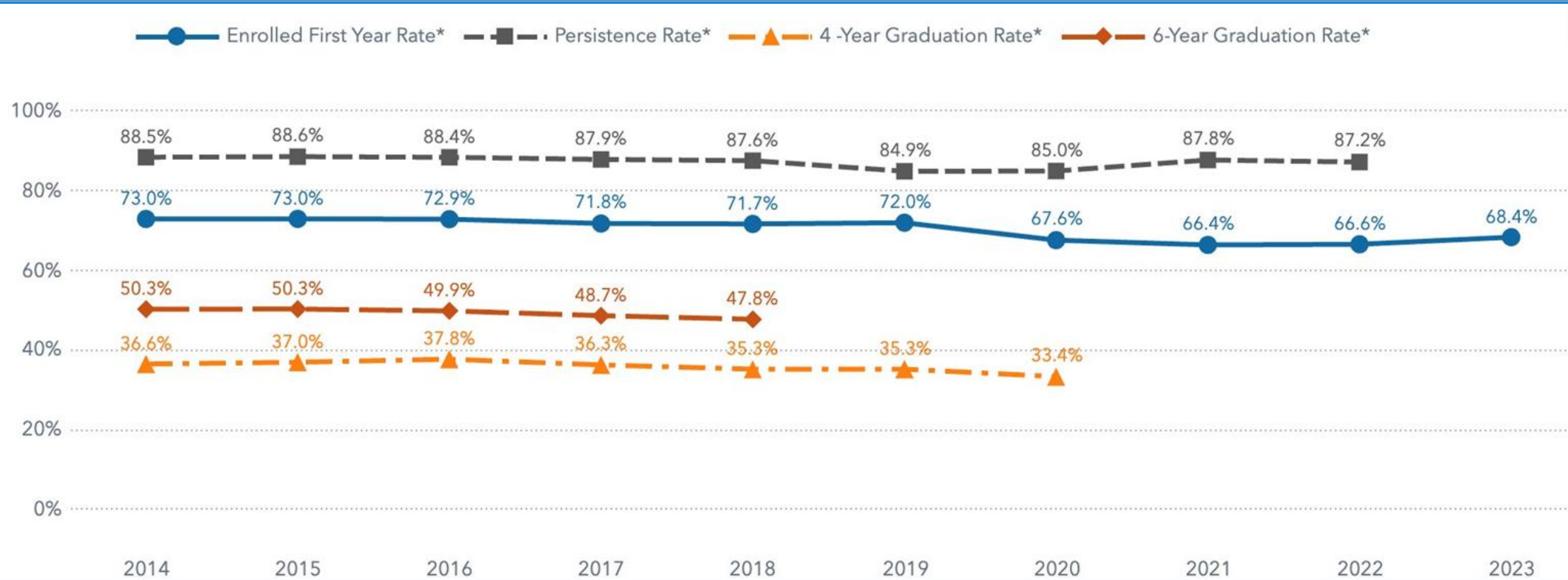
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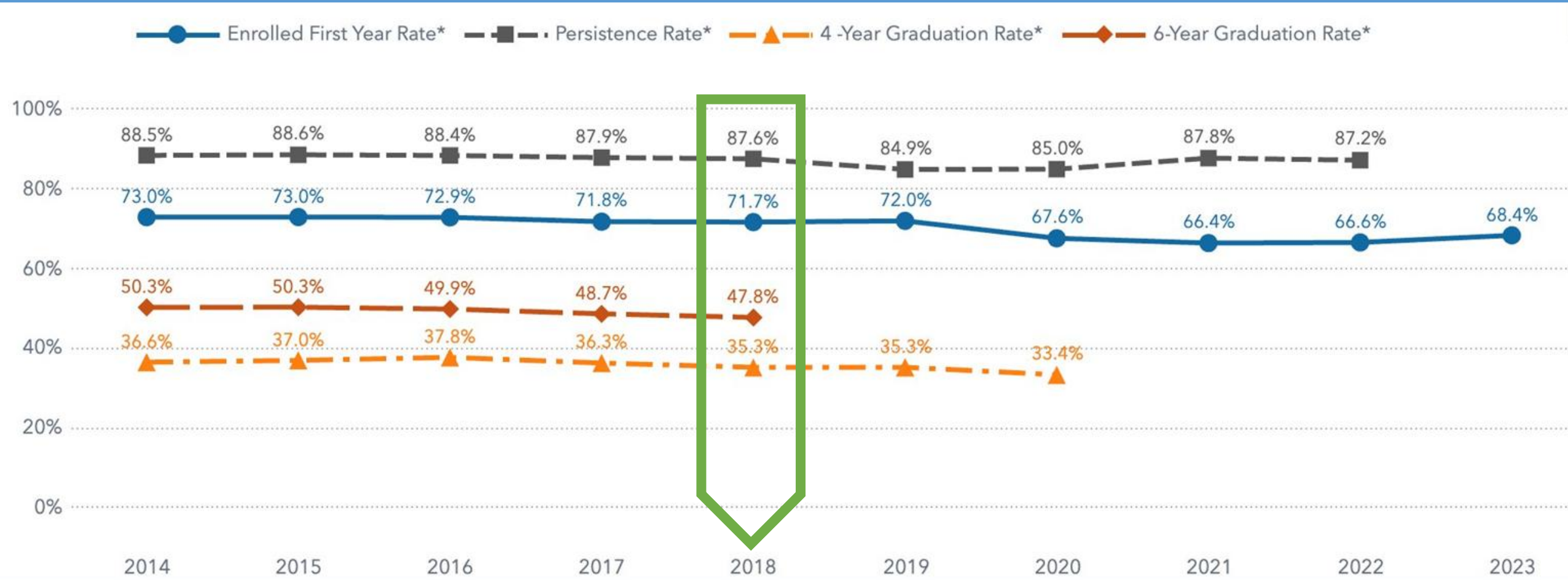


CT Data



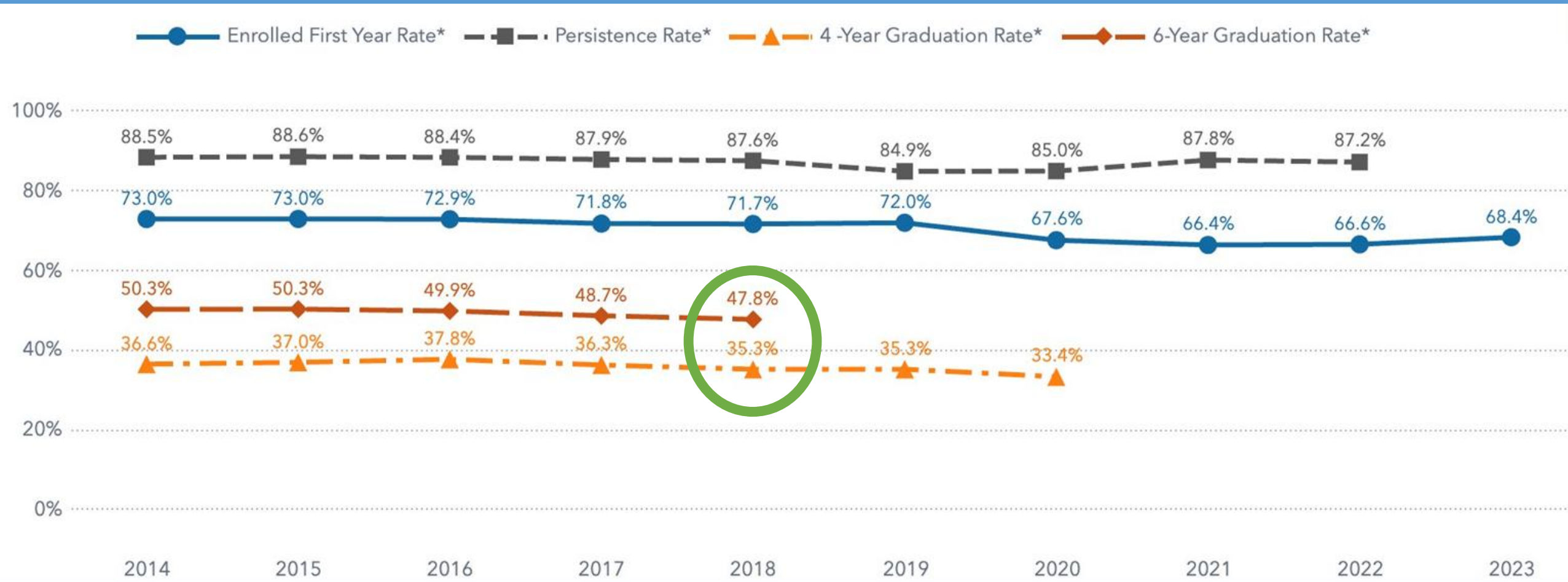


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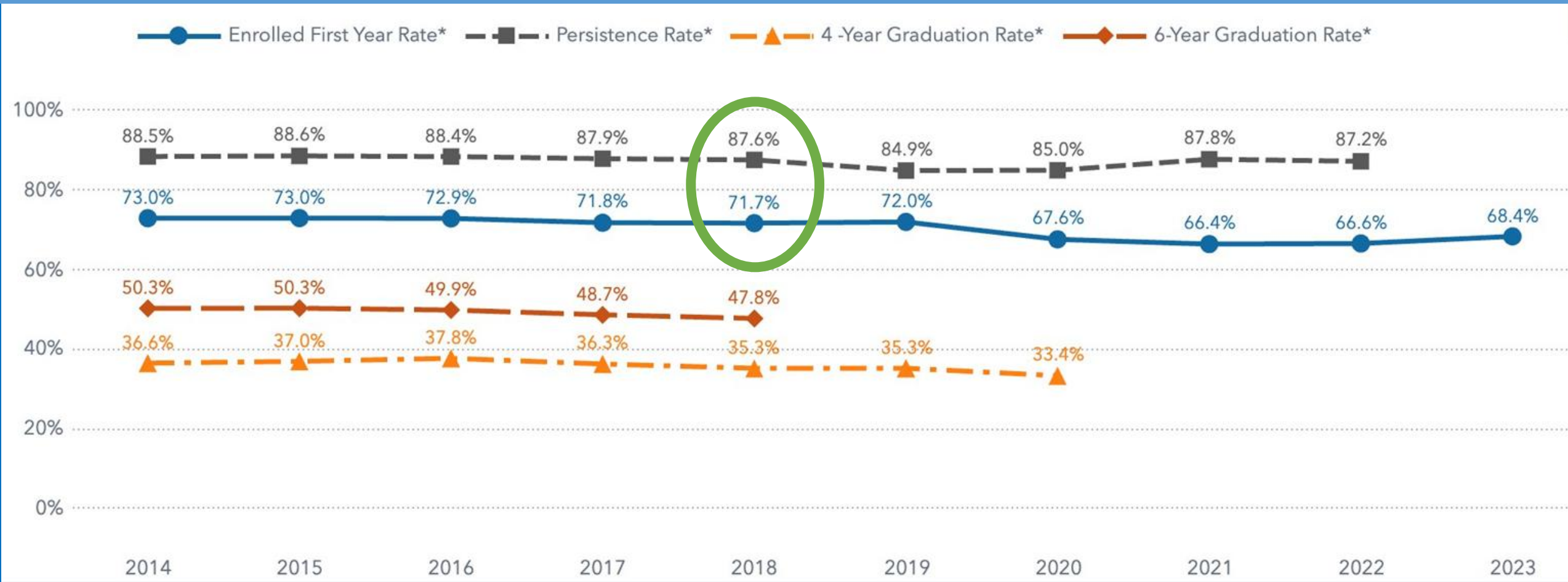


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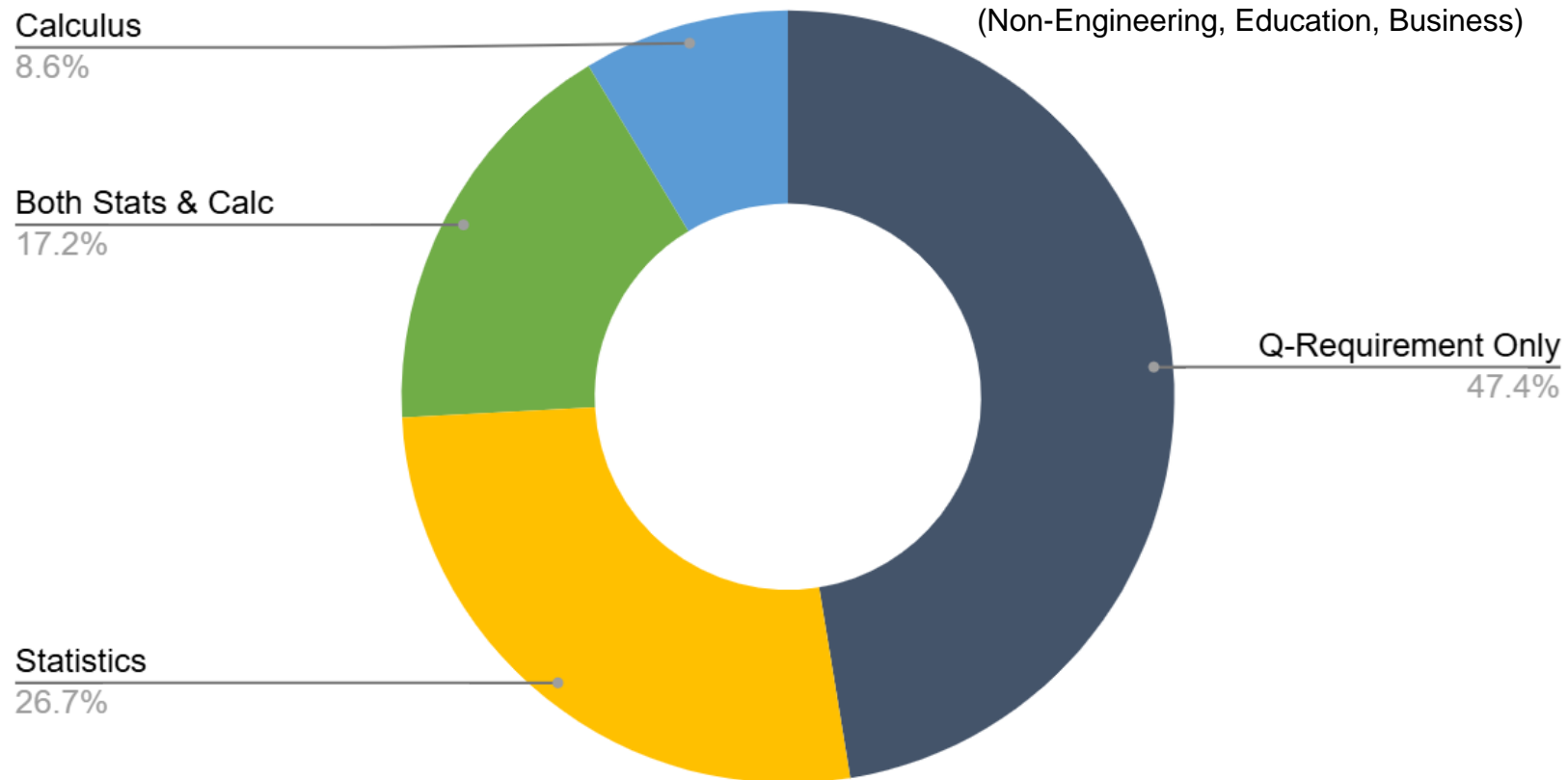
CT Data





CT University Requirements

Percentage of Majors at Public CT Universities that Require Advanced Mathematics





An Opportunity

Percentage of Liberal Arts Majors

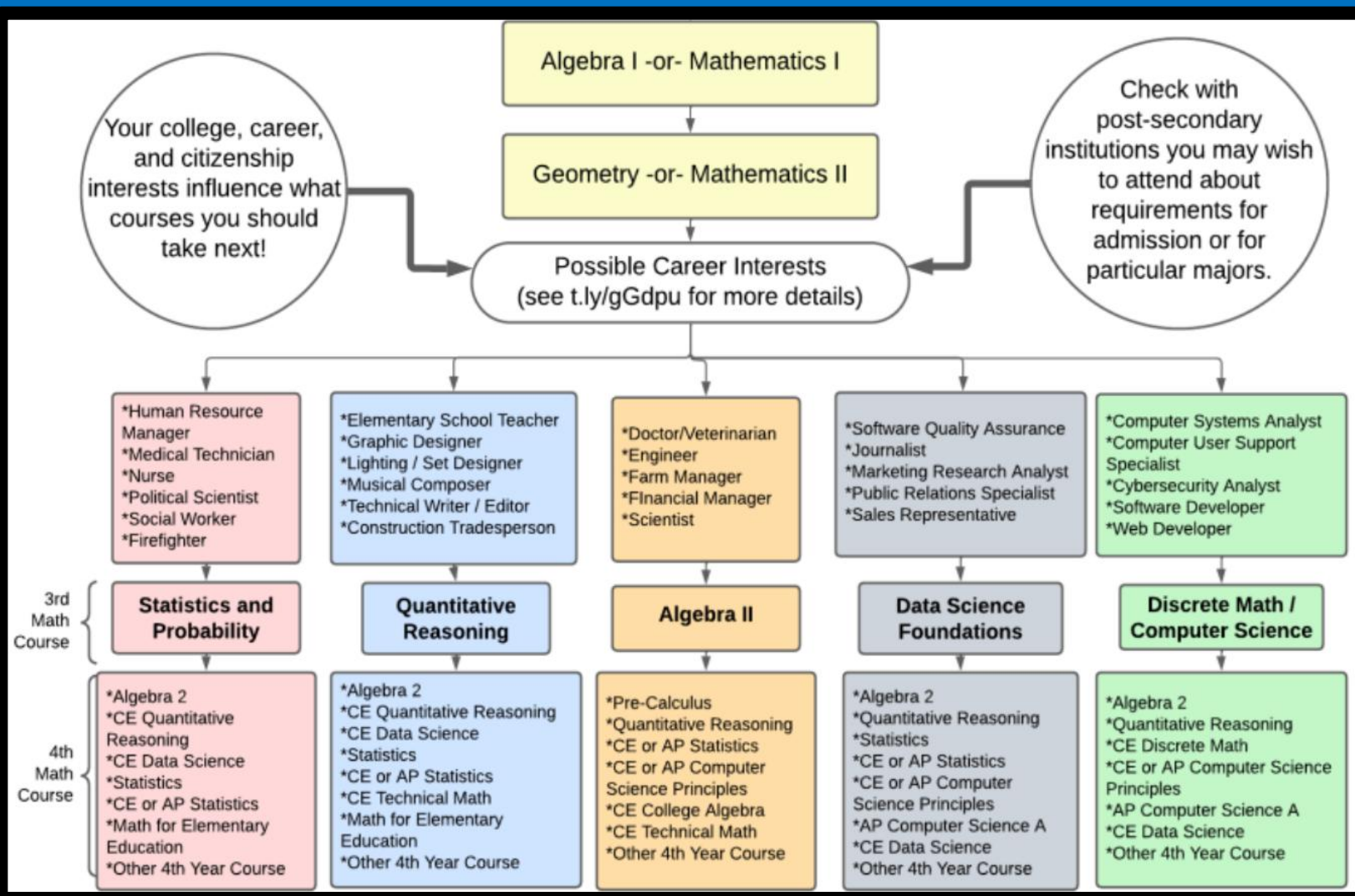
"The rise of statistics presents an opportunity to modernize high school math education for a data-driven world.

Policymakers should embrace a both-and approach: expanding rigorous alternatives like statistics and data science while preserving strong calculus pathways for students who plan to focus on STEM."

Matt Giani, Franchesca Lyra, and Adam Tyner
Calculus or Statistics: Does it Matter?, 2025



Example of What's Been Done in Maine



1

Common Pathway in First 2 Years

2

Career Discussions After Year 2

3

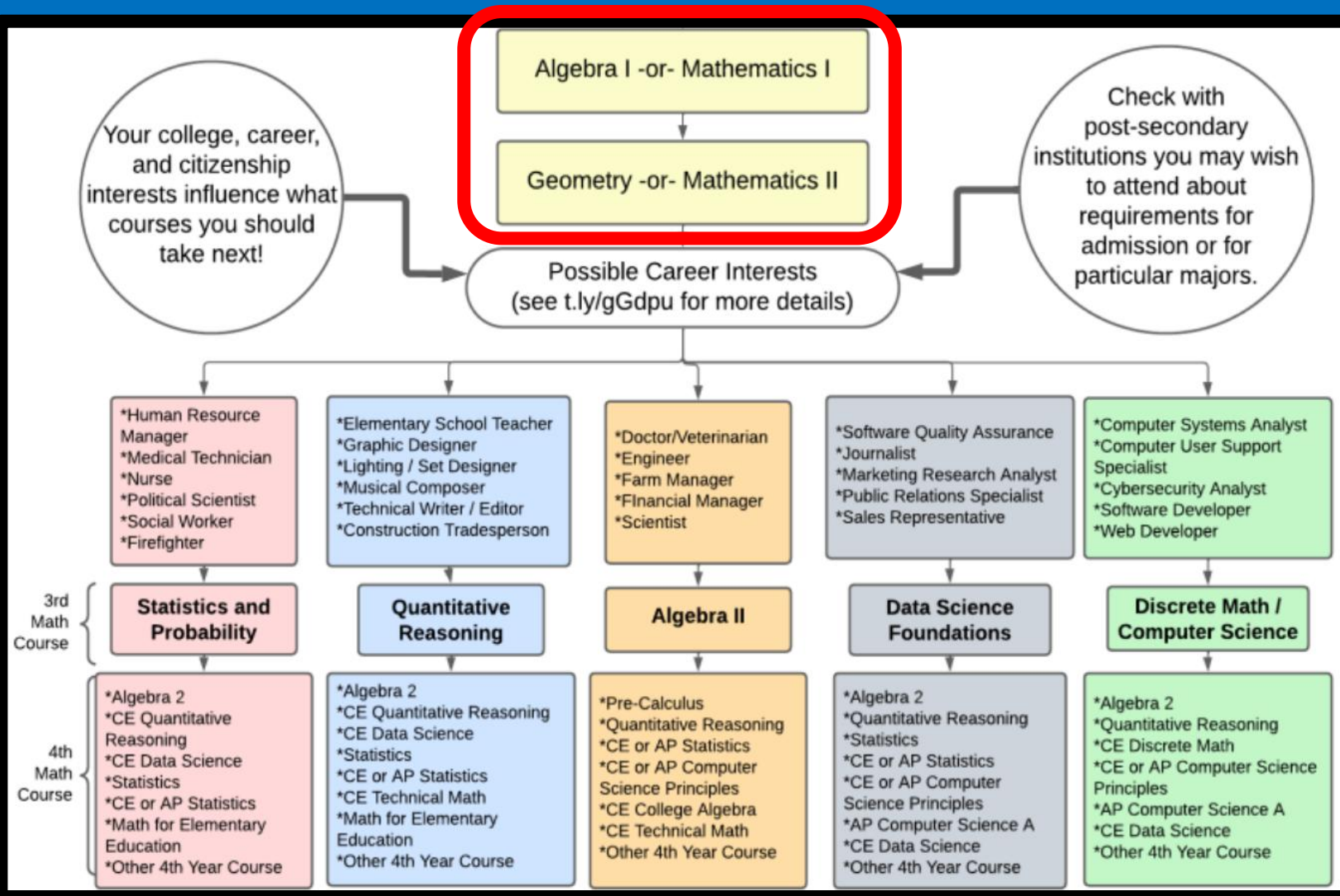
Defined Third Course Based on Career Trajectory

4

Fourth Course Elective Based on Career Trajectory



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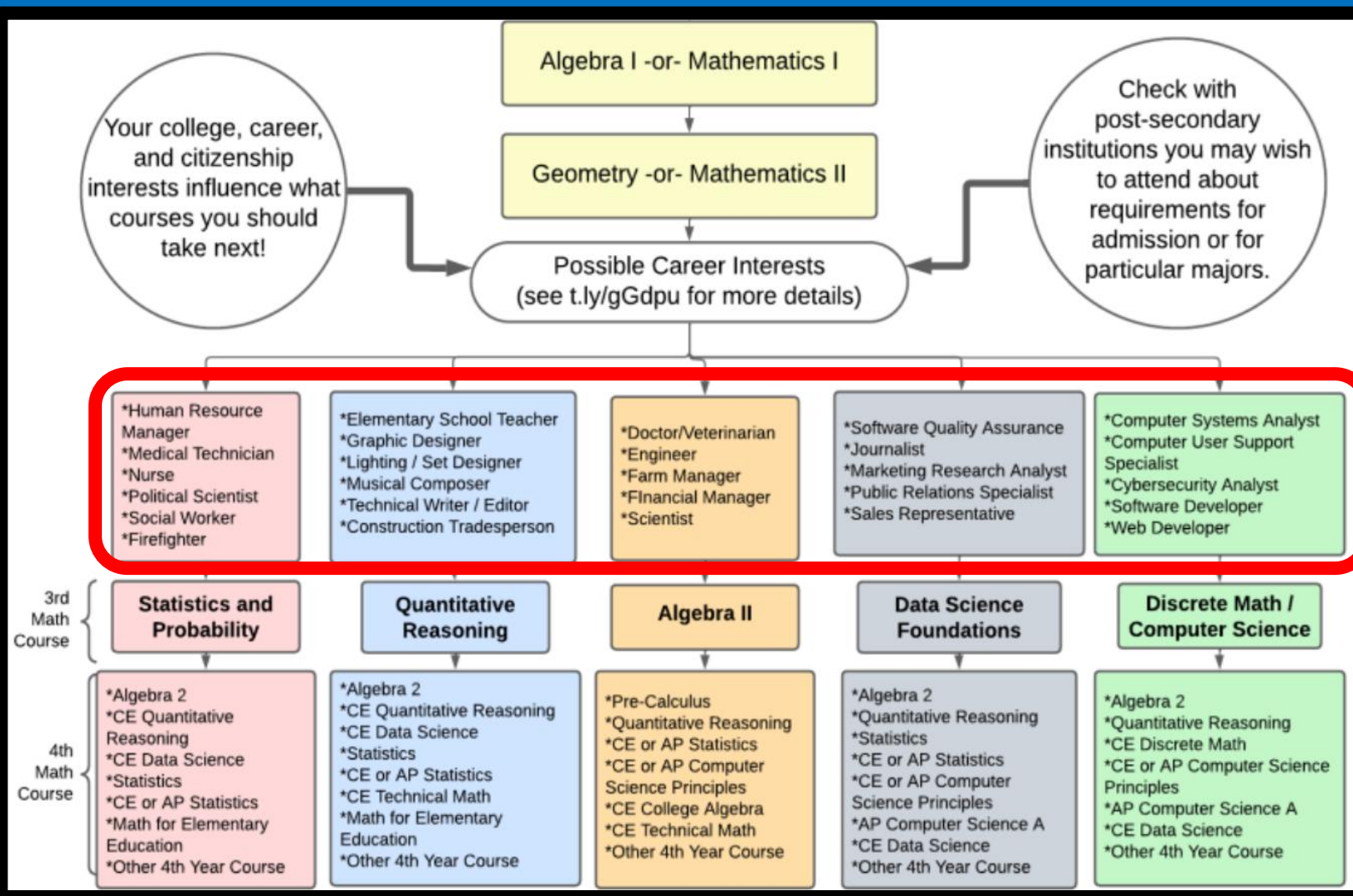
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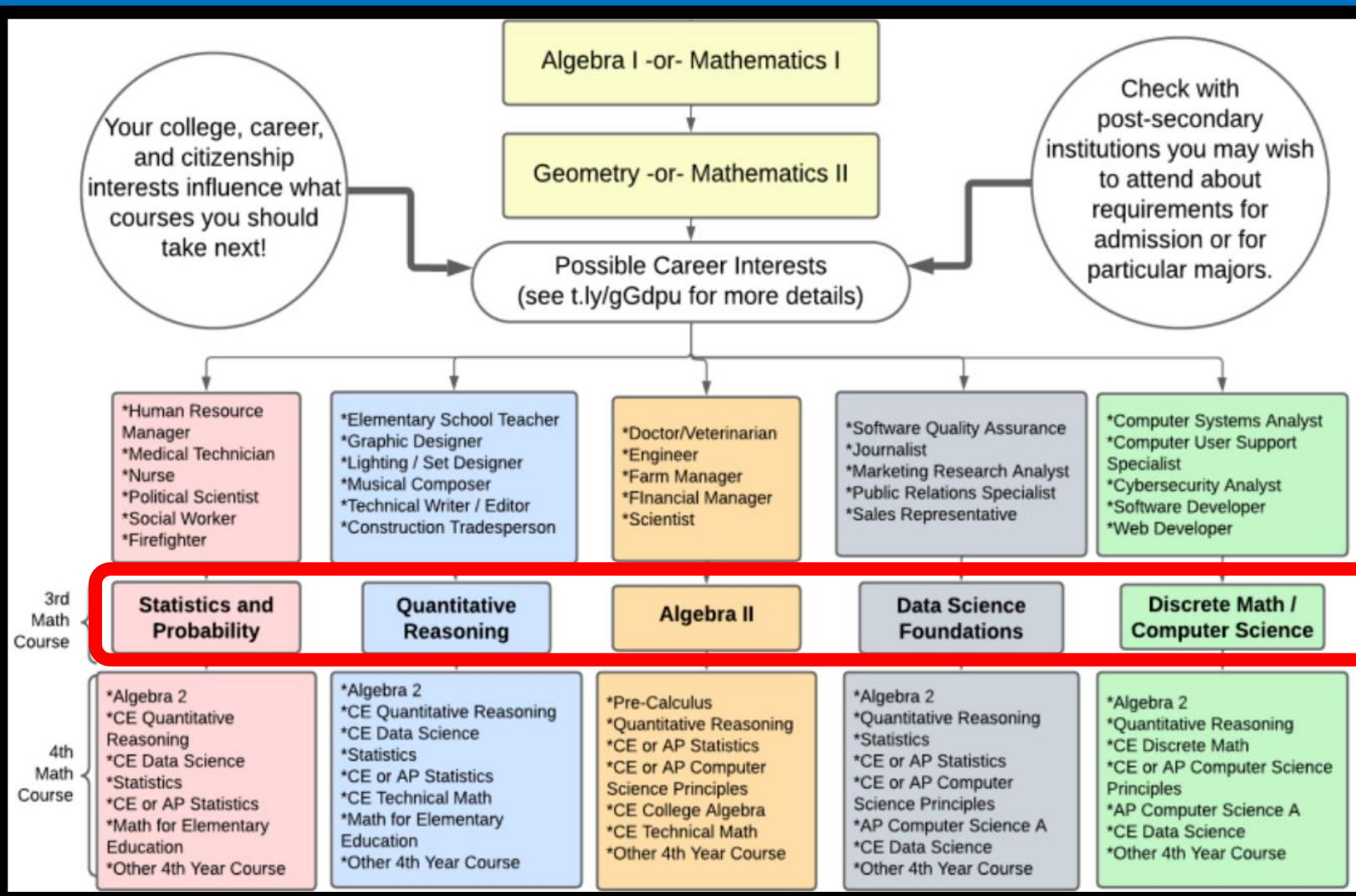
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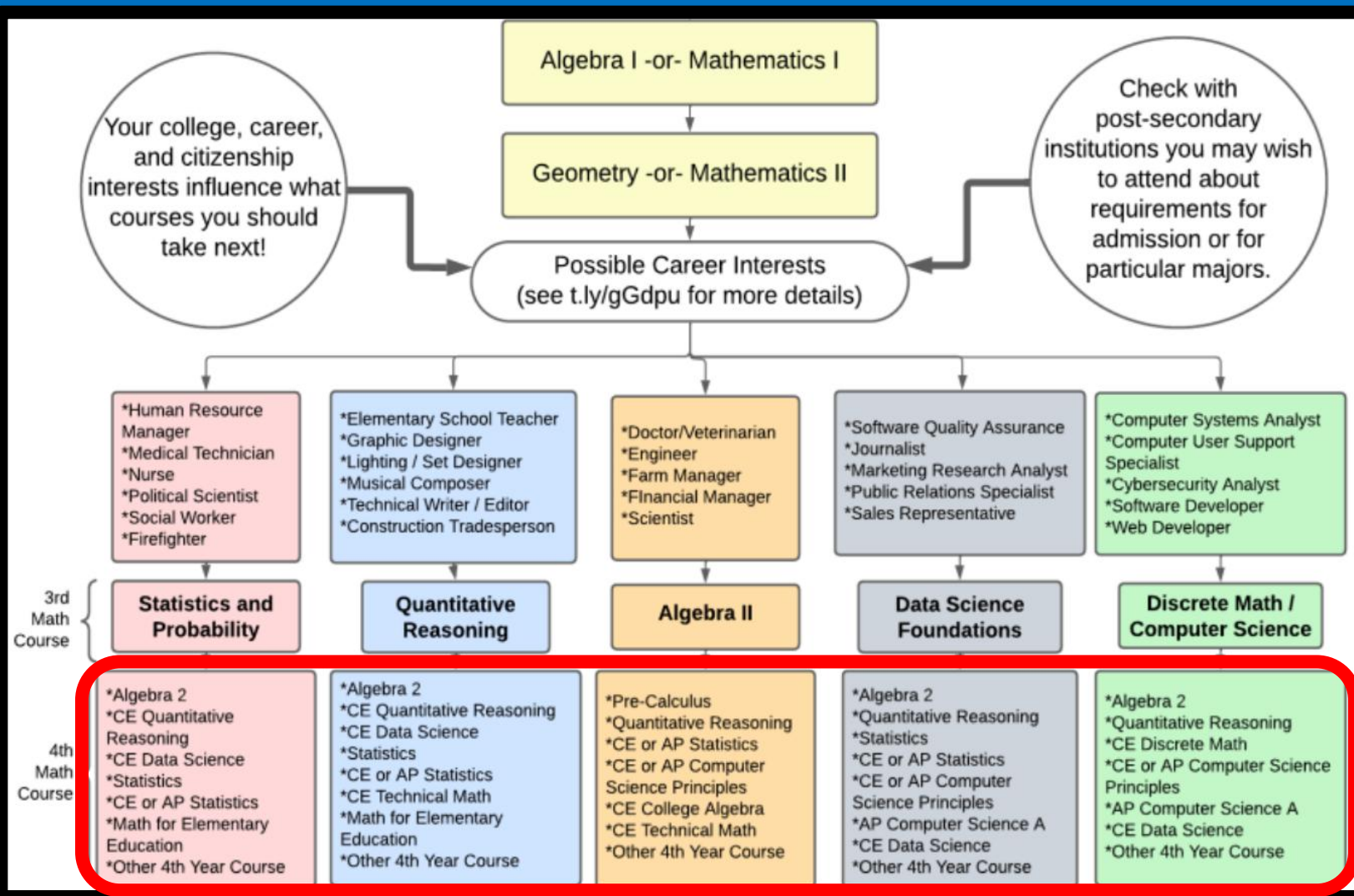
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Reflection: Bridging the Gap Between Course Offerings and Postsecondary Goals

What does YOUR School Counseling Department/Staff need to:

- Stay up-to-date with postsecondary requirements?
- Create or improve materials that clearly connect requirements to course offerings?
- Feel supported and empowered to continually revise the guidance process?



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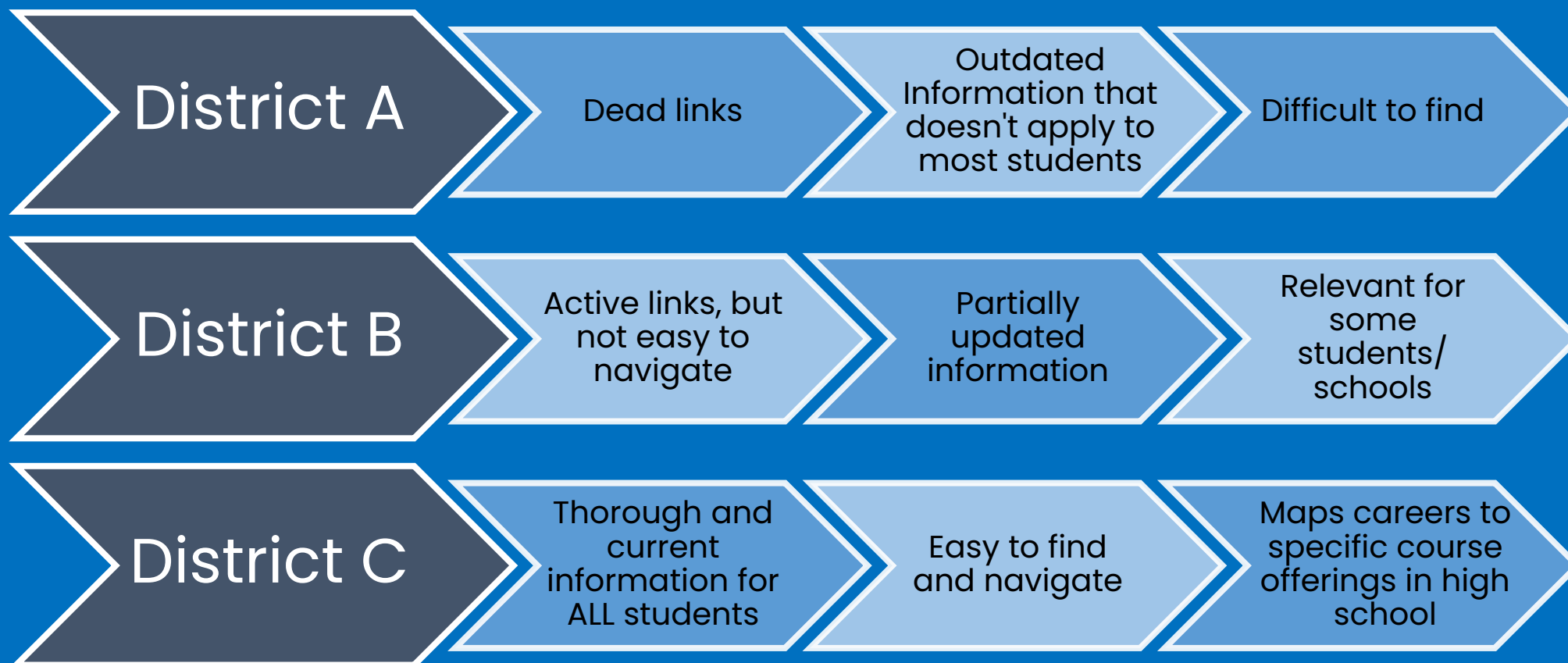


**Pause here to reflect.
Resume when you are ready.**



Current Resources in CT Districts

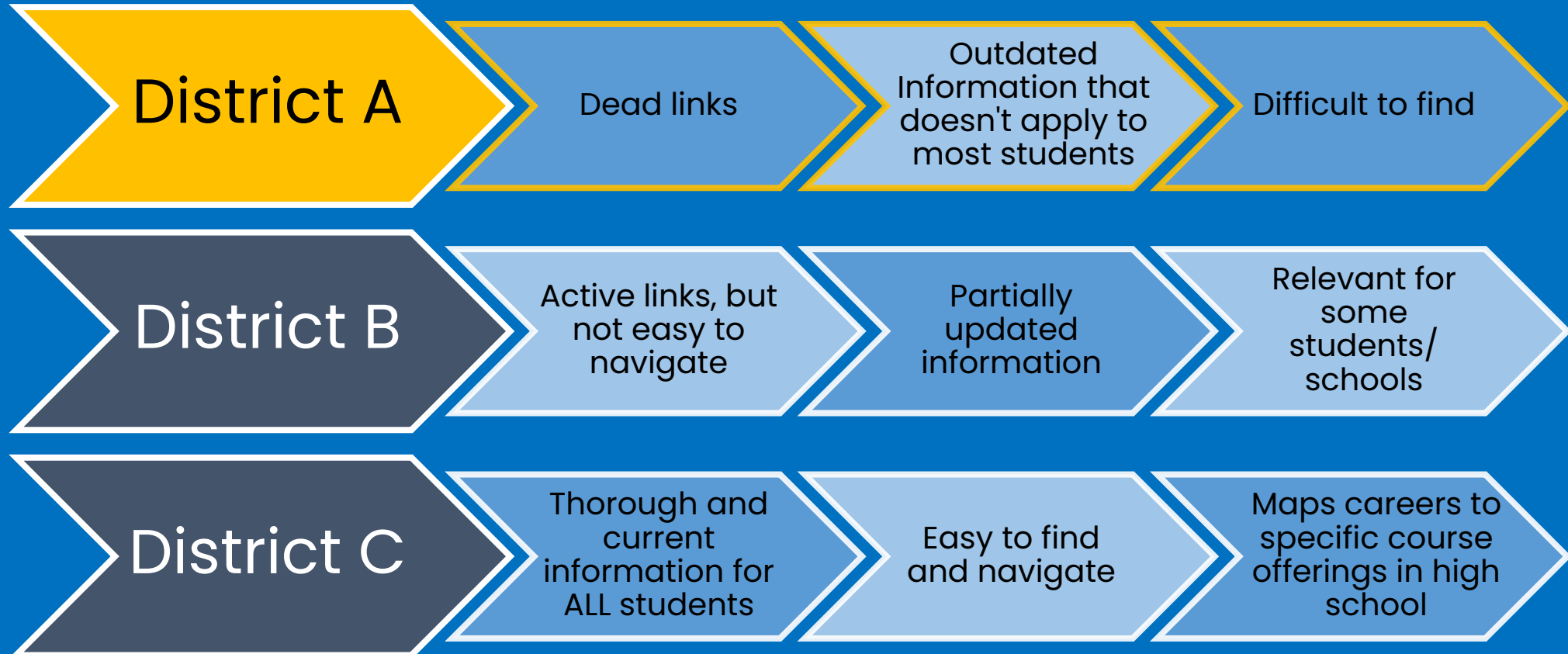
Access to resources and information on district websites across the state is tied to the funding and resources of individual districts.





Current Resources in CT Districts

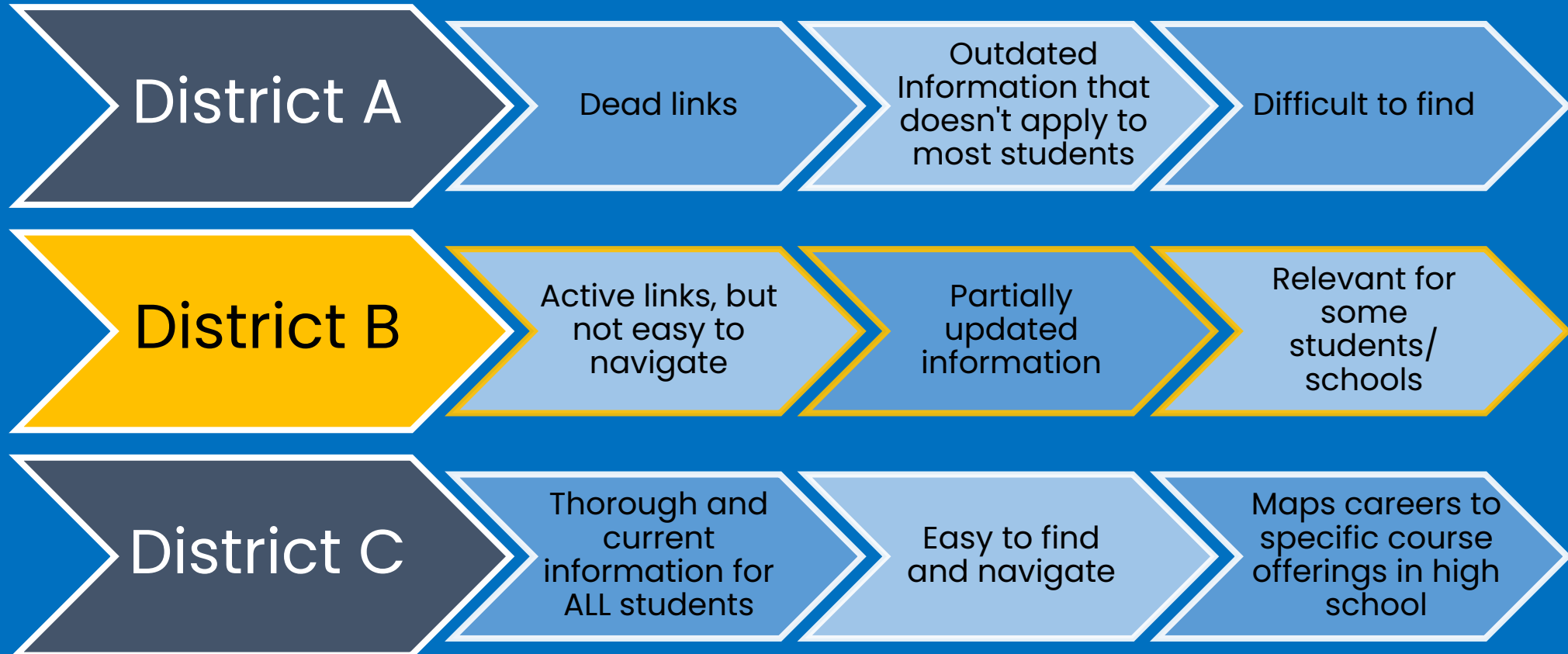
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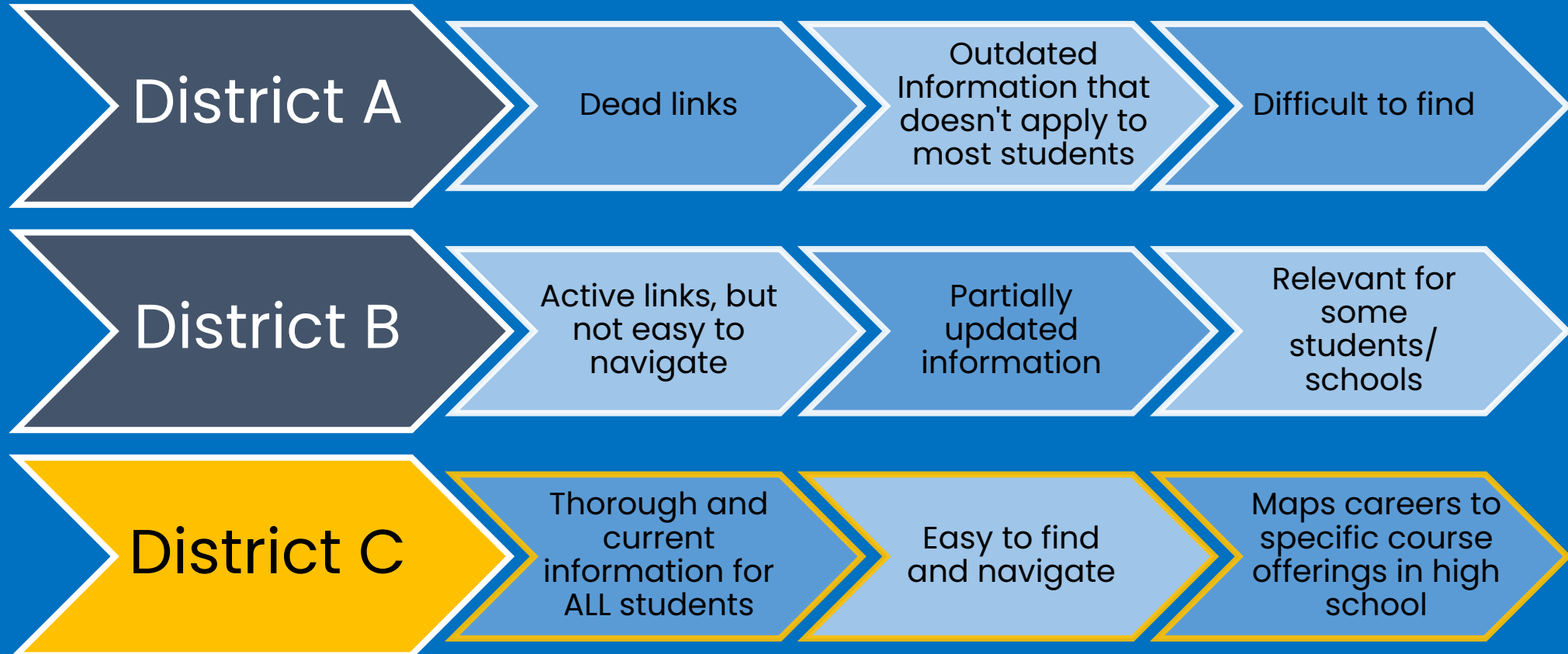
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District Recommendations

- 1 Student-facing links and documents that are easy to navigate and understand
- 2 Information sheets about careers and majors that are best supported by course offerings at district schools
- 3 Well-informed and trained school counseling departments to support students in decision making
- 4 Easily accessible and current resources to support teachers, families, and other stakeholders



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Reflection: District Resources

Are YOUR district's materials:

- Easy for students to navigate?
- Presented in a way that students can easily understand?
- Accurately showing how careers/majors are related to the school course offerings?





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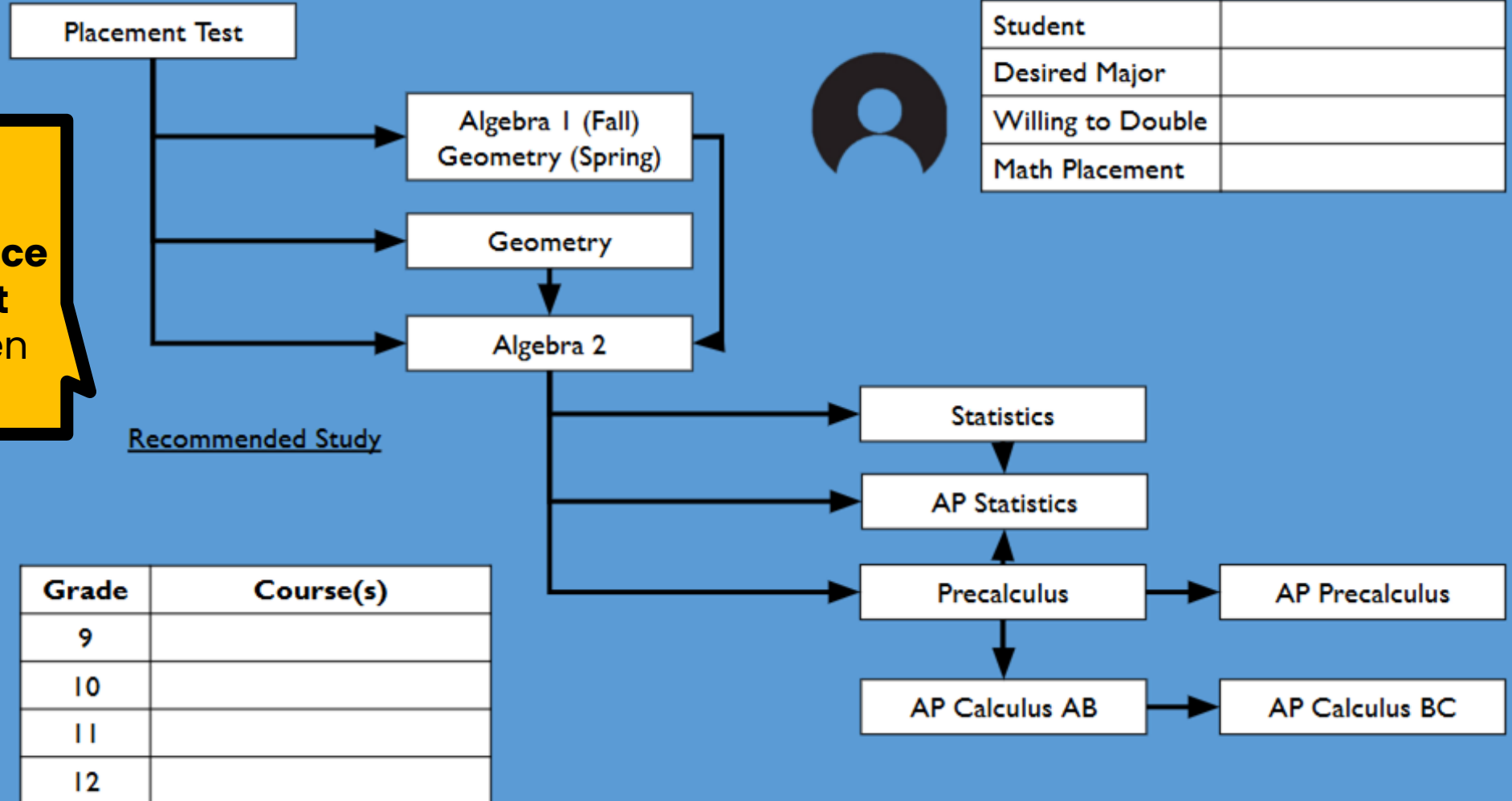


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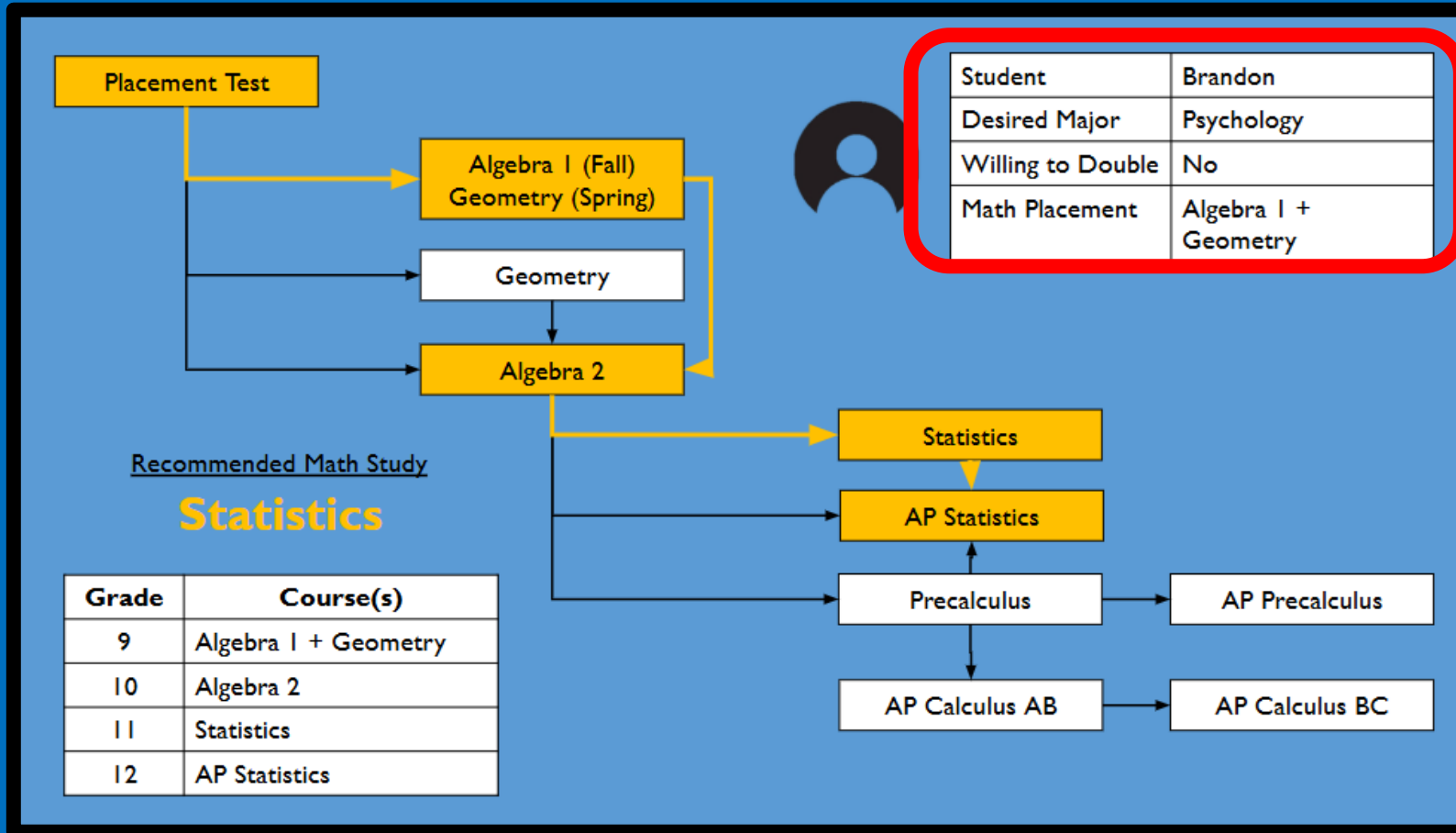
Example of Student-Facing Course Progression Map

Example from
**Engineering & Science
University Magnet
School** in New Haven





Example of Student-Facing Course Progression Map



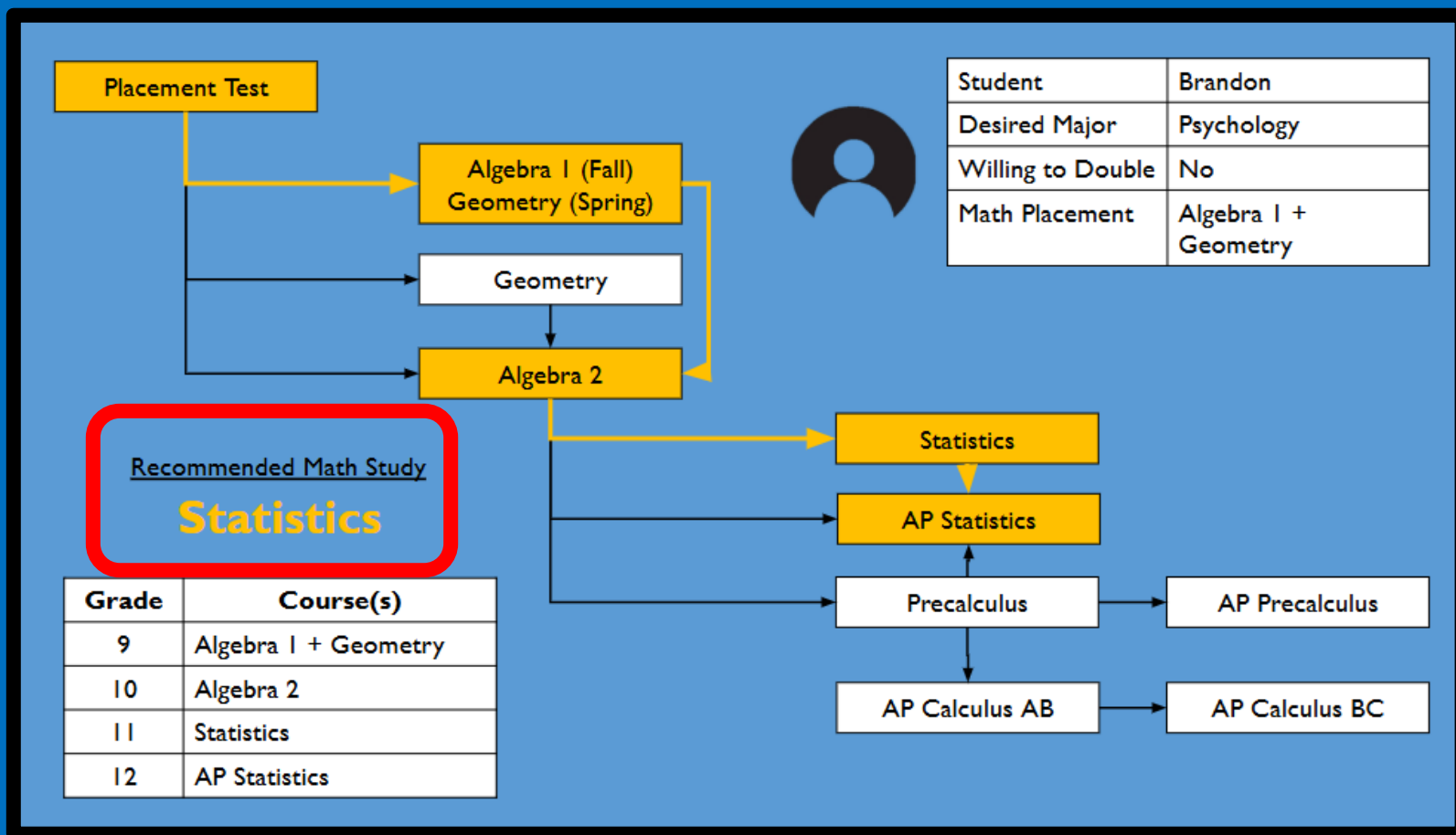
1 Major/Career Trajectory Consideration

2 Recommended Course of Study

3 Clear Course Progression



Example of Student-Facing Course Progression Map



1

Major/Career
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Consideration

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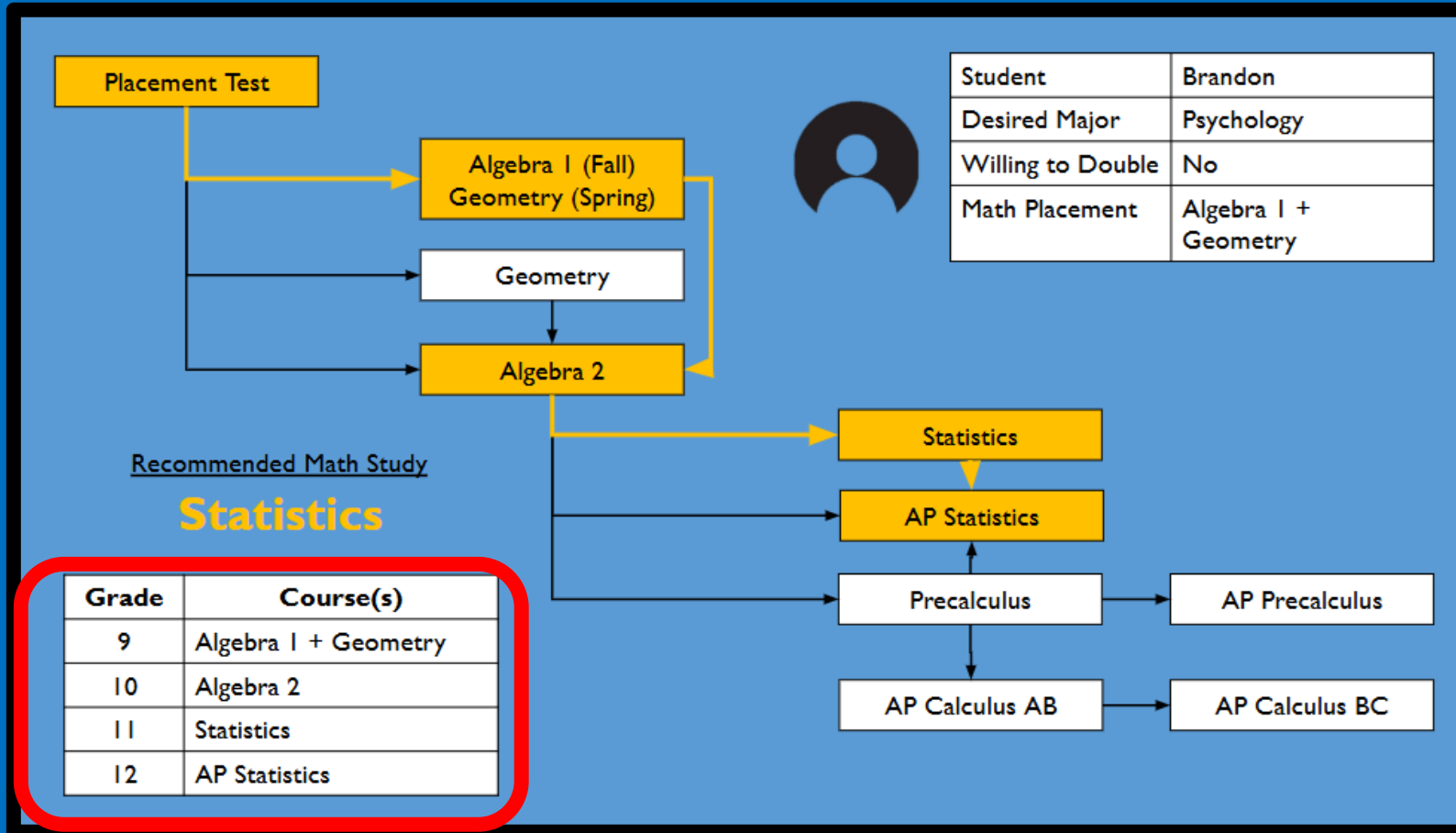
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Example of Student-Facing Course Progression Map



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Major/Career Trajectory Consideration

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Reflection: Course Progression Maps

Are the school counseling materials:

- Tailored to different stakeholders?
- Easy for them to navigate?
- Presented in a way that they can easily understand?
- Show how careers/majors are related to the school course offerings?





Reflection: Course Progression Maps

Are the school counseling materials:

- Tailored to different stakeholders?
- Easy for each group to navigate?
- Presented in a way that they can easily understand?
- Show how careers/majors are related to the school course offerings?



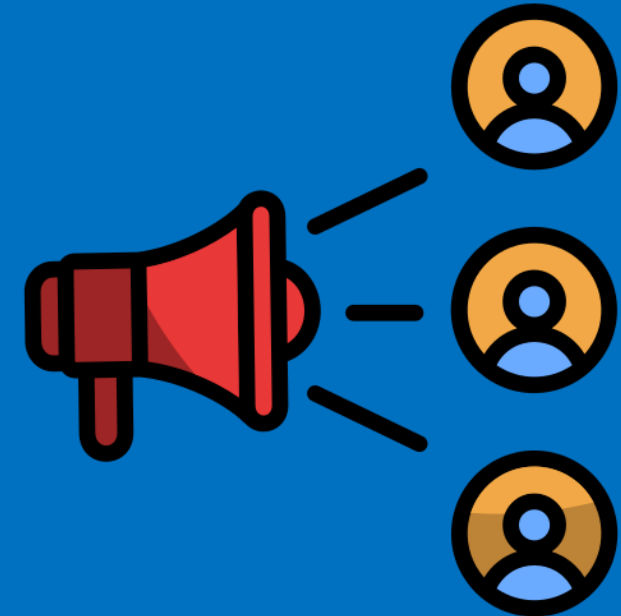
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Reflect: What Can You Do **NOW** to...

- 1 Improve advisory materials?
- 2 Disseminate information?
- 3 Empower students and faculty?





Reflect: What Can You Do **NOW** to...

1

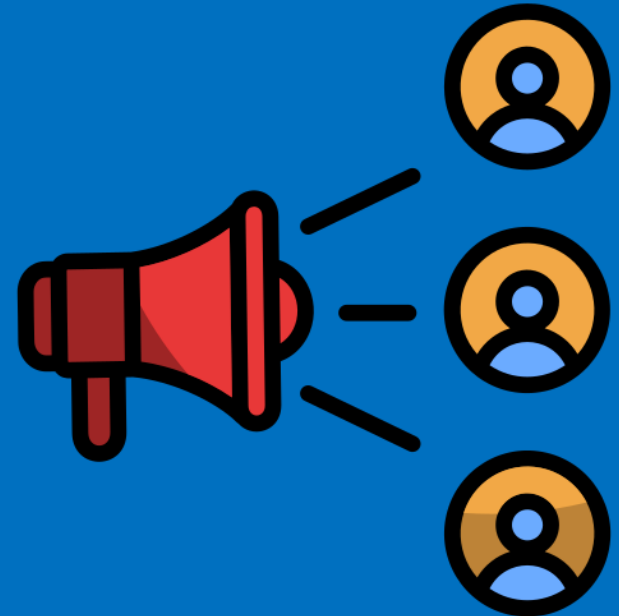
Improve advisory materials?

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Disseminate information?

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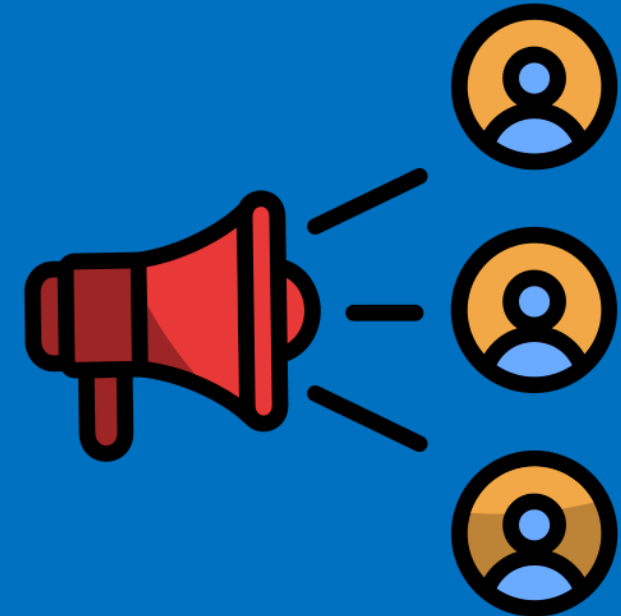
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Reflect: What Can You Do **NOW** to...

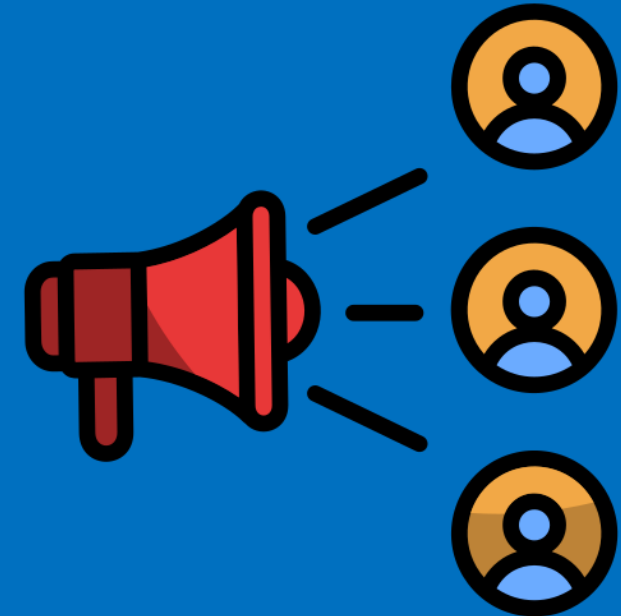
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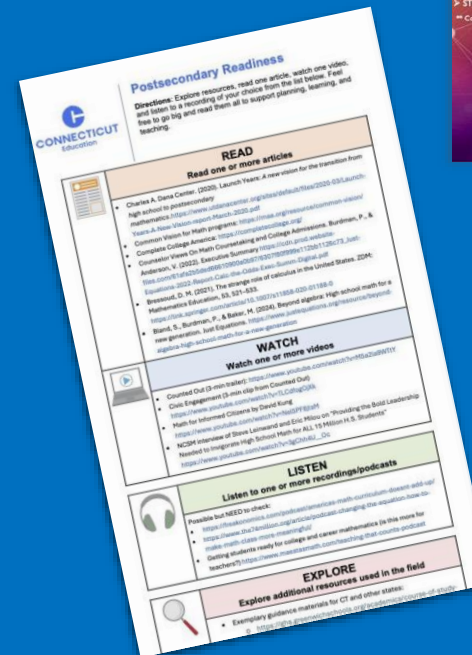
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More Resources

Postsecondary Readiness Fast Facts

Postsecondary Readiness PD Playlist

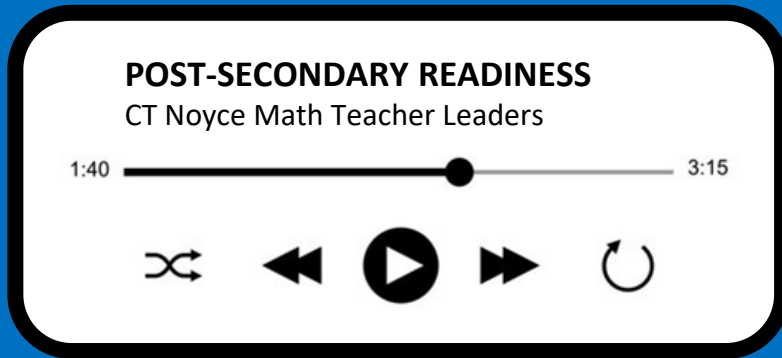


Transition to Higher Education				
Which math courses in high school prepare our students for their college courses?				
Did you know!	Non-STEM Majors Math Requirements	Algebra 2	Statistics	Calculus
• Non-STEM majors still require at least intermediate algebra or precalculus in high school to be prepared for their future math courses.	School of Business			
• Many non-STEM majors expect elementary statistics as part of their course preparation in higher education.	Accounting	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
• 81% of majors require math beyond Algebra 2 (of colleges surveyed)	Business Information Systems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
• Encourage students to double up math courses in high school to improve college preparation.	Finance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Marketing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Humanities			
	Communication	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Education	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	English	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	History	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	World Languages	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Anthropology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Social Sciences			
	Anthropology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Criminology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Economics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Journalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Philosophy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Political Science	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Psychology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Social Work	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Sociology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Women & Gender Studies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	STEM Majors Math Requirements			
	Biology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Chemistry	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Civil Engineering	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Climate Change (BS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Computer Science	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Earth Science	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Electrical Engineering	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Environmental Science	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Graphics Technology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Mechanical Engineering	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Petroleum Engineering	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>





More Resources: Playlist



Read



Watch



Listen



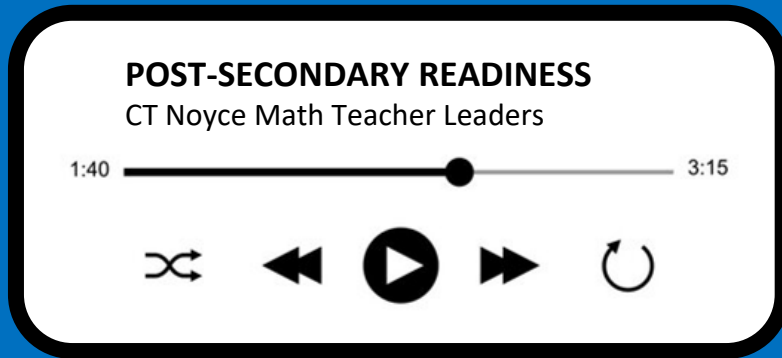
Explore



Reflect



More Resources: Playlist



1

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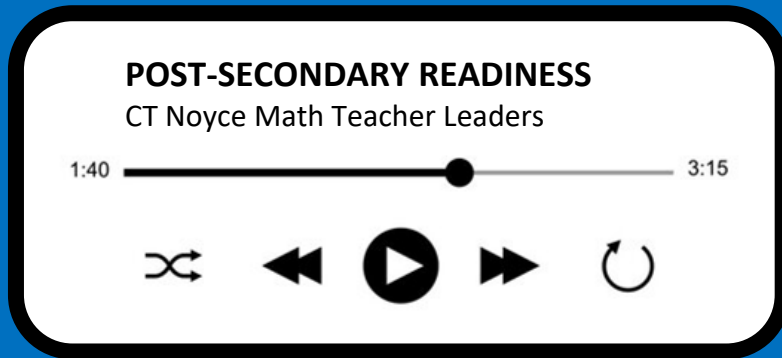
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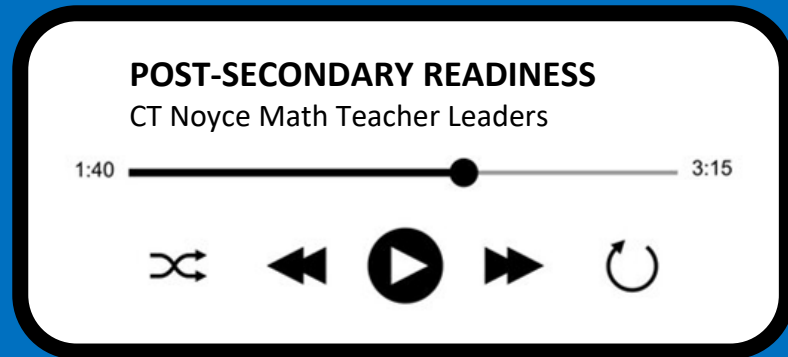
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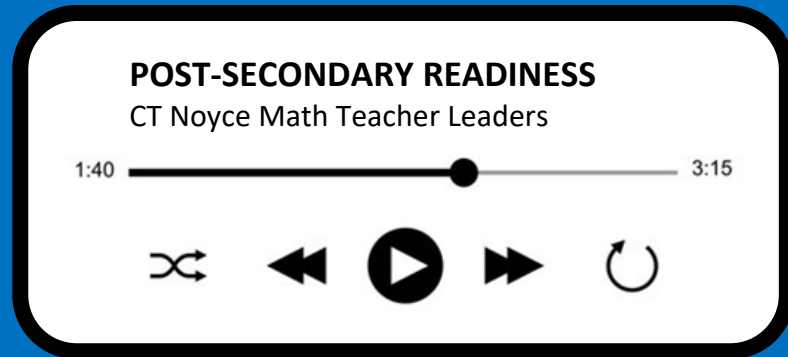
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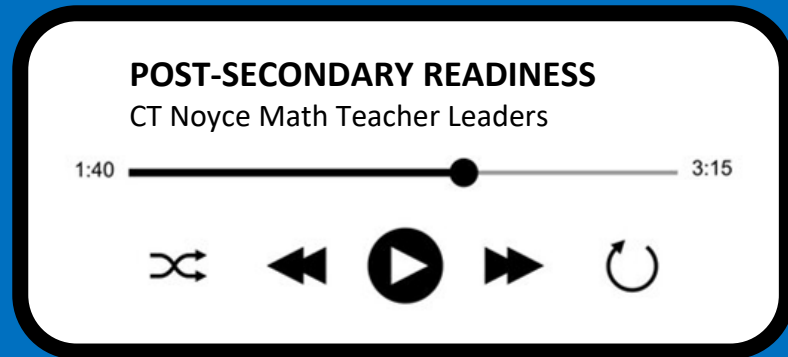
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A PD Series on Readiness, Access, and Alignment

NEXT

Joint Position
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