

STATE OF MATH PATHWAYS 2026

A national report on the policies, practices, supports, partnerships,
and data systems shaping multiple mathematics pathways



Launch Years
Initiative



The University of Texas at Austin
Charles A. Dana Center

WestEd 

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and data systems shaping multiple mathematics pathways



Launch Years Initiative

At the Charles A. Dana Center, we envision a future where every learner, regardless of background or zip code, can experience the power and joy of mathematics, science, and literacy in ways that are meaningful and relevant to their futures. Our team works across the education spectrum—from developing and delivering innovative curricula, professional learning, and high-impact tutoring to catalyzing the evolution of systems, structures, and policies. We support educators, administrators, and policymakers in creating seamless transitions throughout the K–16 system for all students, especially the historically underserved.

The Center was founded by Dr. Uri Treisman in 1987 and moved to The University of Texas at Austin in 1991. Our staff members have expertise in mathematics, science, literacy, leadership, research, program evaluation, policy, and systemic reform. For more information about our programs and resources, see www.utdanacenter.org.

The Launch Years Initiative (LYI) is a nationwide effort, led by the Dana Center, to modernize high school mathematics and ensure that every student has access to a math pathway aligned to their postsecondary and career goals. The initiative brings together states and major mathematics organizations to strengthen the transition from secondary mathematics into postsecondary programs and the workforce. Over half of the country is a part of the initiative, with support geared toward creating lasting systemic change for the unique state contexts.

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Executive Summary

The State of Math Pathways 2026 examines how all 50 states and the District of Columbia are building the structural conditions needed for coherent math pathways from secondary education through postsecondary study and into careers. This report also explores the work of 26 states that are participating in the Launch Years Initiative (LYI), a project led by the Charles A. Dana Center at The University of Texas at Austin, which aims to improve mathematics learning opportunities for all students in high school and to better align high school mathematics with students' postsecondary and career aspirations. The report draws on a six-state data pilot study that allowed for a deeper review to show what structural reform looks like in practice and what current data systems can reveal about student outcomes.



A **math pathway** is a sequence of courses that students take to meet the requirements of a program of study. Math pathways are student-centered and enable students to follow different routes through the math curriculum so that the math they learn is rigorous and relevant to their academic, career, and civic goals. Common math pathways include statistics, quantitative reasoning, data science, and algebra/calculus.¹

Math pathways reform addresses whether students have choices that preserve future options. A state may approve new courses, redesign placement, or connect data systems, but students benefit most when those changes operate together. Therefore, *State of Math Pathways 2026* focuses not only on whether individual policies or programs exist, but also on whether states are building a connected system that students, families, educators, and institutions can understand and use.

The findings are based on data collected from states on nine key actions. Introduced in the 2025 report *Charting the Course: The State of Mathematics Pathways for Student Success*, these key actions reflect the policies, supports, and conditions that states need to create high-quality math pathways from high school through postsecondary education. *Charting the Course* established a national baseline using six preliminary progress measures. This current report expands the lens to 29 structural change indicators and allows for a more complete assessment of whether reforms are formalized, implemented, supported, and visible in public data.

When these key actions and associated indicators are successfully implemented at scale, they work together to create lasting structural changes that bring math pathways reform from isolated advancements to fully implemented and supported systemic changes that will positively impact students for decades to come.

Structural indicator data show whether the policies, practices, supports, partnerships, and data systems for math pathways are in place. What ultimately matters, however, is how students experience those structures. This report examines eight student outcomes that describe how math pathways may influence student access and success; this includes, the percentage of high school students who complete Algebra I by the end of grade 9, potentially allowing them access to math pathway courses in grades 11 and 12, and the percentage of postsecondary students who complete a gateway math course during their first college year, thus increasing students' likelihood of successfully completing a credential. The student outcomes span early mathematics momentum, secondary and postsecondary math pathway participation, postsecondary entry, gateway math course completion, persistence in college, credential completion, career transition, and economic return.

The deeper review tests which of these student outcomes states can currently report, how consistently they can be defined, and how they can be read alongside structural implementation without making causal claims. The success of math pathways will ultimately be demonstrated by positive changes in student outcomes.

Key Actions

Nine key actions are essential for developing and sustaining high-quality math pathways, measured in all 50 states and the District of Columbia.



Expand Opportunities Through Multiple Mathematics Pathways

States establish multiple, rigorous mathematics pathways that expand—not limit—students' academic and career opportunities.



Modernize Mathematics for Career Readiness and Civic Engagement

States ensure mathematics content and pathways reflect both evolving workforce demands and the quantitative skills needed for civic participation, grounded in the belief that every student can succeed in mathematics.



Align and Accept Pathways

Postsecondary institutions explicitly accept multiple mathematics courses for admission and for transfer between two-year and four-year institutions.



Remove Placement Barriers

Education leaders implement objective placement criteria that promote broad access to advanced K–12 mathematics opportunities and college-level gateway mathematics courses.



Support Effective Implementation

States provide resources to support high-quality implementation of all mathematics pathways, particularly in historically underserved communities.



Guide Informed Student Decisions

Districts, schools, and universities provide students and families comprehensive and responsive advising from middle school through high school and into postsecondary to enable informed decisions about courses and pathways.



Build Cross-Sector Partnerships

States establish mathematics pathways through formal cross-sector partnerships with clear governance, roles, and shared accountability.



Strengthen Preparation for Pre-Service and In-Service Educators

States invest in educator preparation programs, professional development, and high-quality instructional materials for all mathematics pathways.



Capture and Report Progress

States establish comprehensive public reporting systems that provide transparent, disaggregated data on mathematics course-taking patterns and sequences, student progression, and outcomes across K–12 and postsecondary education.

Findings and Implications

All states and the District of Columbia have demonstrated varying levels of work on math pathways reform. Across the nine key actions, five cross-cutting patterns uncover where math pathways reform has advanced and where the next phase of work is most urgent. These findings matter because students experience the pathway as a connected sequence. Progress in one sector can be undermined when course access, advising, admissions, placement, transfer, funding, educator preparation, or reporting remains disconnected.

01

Math pathway design outpaces implementation support.

States have expanded high school and postsecondary math course options faster than they have built recurring funding, material-review systems, educator preparation, and public monitoring.

02

Postsecondary reforms often precede student access reform in secondary education.

Postsecondary education has created destinations through multiple gateway math courses, placement reform, and corequisite support. The next step is ensuring that secondary placement, course access, advising, and admissions signals prepare students to reach those destinations.

03

Data infrastructure outpaces public math pathway reporting.

A linked data system is foundational, but it does not automatically produce shared course definitions, longitudinal measures, disaggregated reports, or public products.

04

In-service learning outpaces pre-service redesign.

Professional learning can be added to existing systems. Changing educator preparation, faculty expectations, and instructional materials approval require deeper institutional alignment.

05

Institutionalization of math pathways is the next phase.

States now need to connect promising components so that math pathways do not depend on isolated programs, local champions, or students knowing how to navigate inconsistent rules.

Although multiple math pathways are increasingly established in policy and practice, the field has not fully resolved questions about their value, rigor, and role. The challenge therefore is twofold: continue building understanding and support for multiple math pathways while institutionalizing them through clear acceptance, advising, funding, educator preparation, quality materials, and public reporting. Progress in one sector is valuable, but students experience the entire chain. A course option in high school has limited value if admissions guidance is unclear; a gateway math course option in college has limited value if placement or advising routes students elsewhere; and a linked data system has limited public value if states do not define and report math pathway access, progression, and outcomes.

A Deeper Look at Math Pathways

The **six-state data pilot study** was designed to be a deeper review into six states at different points in the math pathways reforms: Alabama, Georgia, Kansas, Massachusetts, North Carolina, and Oregon. The deeper review explored structural conditions and student outcomes together. The combined profiles do not establish cause and effect. They show where promising structural conditions and measurable student outcomes appear in the same state, where the evidence remains incomplete, and which connections warrant closer study over time.

Priority Actions

This report recommends the following priority actions for states over the coming year. These actions focus on structural and systemic opportunities that will make math pathways implementation at scale more durable and lasting.



Pair pathway expansion with durable implementation support.



Align the full student decision chain.



Convert linked data into routine public math pathway reporting.



Use within-state subgroup evidence to target improvement and resources.



Address access and placement as a K–12 priority.



Build cross-agency capacity to measure career transitions and economic return.



Redesign educator preparation and professional learning systems.



Why Focus on Math Pathways?

Every student has the capacity to succeed in mathematics. What varies is whether the U.S. educational system creates the conditions for that success. The courses and supports that are offered to students, including the quality of instruction, admission and placement rules, and the availability of advising and information, all open or close doors of opportunity.

In 2026, the central question is whether the mathematics pathways being built are connected, supported, and visible enough to change what students experience.

A student's math pathway begins long before college. A placement decision in grade 6 or 7, based on a single test score or teacher recommendation, can shape which courses are available to a student in high school.

The choice or availability of a senior-year math course can affect college admission, placement, and a student's first college mathematics experience. Too often, schools offer just one math pathway option to students: calculus. In our country's lowest income areas, the available options sometimes end at Algebra II.

The problem here is not a lack of student ability—it is the access to the right course. Calculus opens doors for students ready to pursue STEM disciplines. However, in our modern workforce landscape, students deserve access to a wide array of options that can lead to a variety of degrees and rewarding, in-demand careers.

Access to a meaningful math pathway is essential, but students also need multiple on-ramps—opportunities to enter advanced or alternative mathematics after different starting points—and clear off-ramps that allow them to change direction without losing time or closing options. A coherent system supports movement into, across, and between pathways while making the consequences of each transition apparent before a decision becomes difficult to reverse.



What Is a Math Pathway?

A math pathway is a sequence of courses aligned to a student's program of study and career goals, ensuring that the math students take is relevant to their futures.



Consider a student who does not learn until late in 11th grade that the college major they are considering expects a particular mathematics sequence. By that point, the student may have completed a rigorous math course, but not the course that keeps that college major option open. Once again, the problem is not a lack of ability—the problem is that access to the right course, at the right time, with the right information, was not available. Course approval, placement rules, advising, college admissions, and program requirements were not aligned early enough for the student to make an informed choice.

Effective math pathways ensure that students have a way to change course, if needed, and that no single early decision closes off options permanently. Achieving true student access and success in math pathways often require changes in policies, structures, and systems.



Student Experience

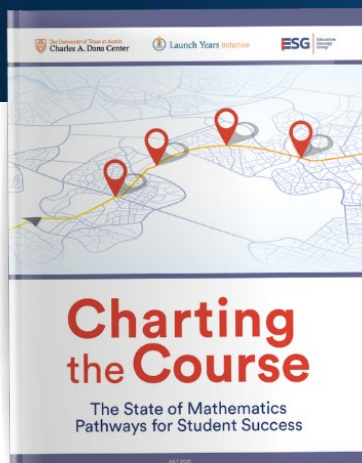
Students do not experience their math journeys as separate policy categories. They experience a sequence of course recommendations, placement decisions, advising messages, admission rules, and transfer requirements. A gap at any point can change which postsecondary options remain available.

Across the country, states are expanding mathematics options beyond a single traditional sequence. They are approving courses in statistics, quantitative reasoning, data science, and applied mathematics; redesigning college gateway courses; changing placement practices; and building cross-sector partnerships. The question is no longer simply whether alternatives exist—it is **whether those alternatives are coherent, supported, accepted, and visible enough to expand opportunity at scale.**



The Launch Years Initiative (LYI) is a nationwide effort,² led by the Charles A. Dana Center at The University of Texas at Austin, to modernize high school mathematics and ensure that every student has access to a math pathway aligned to their postsecondary and career goals. The initiative brings together states and major mathematics organizations to strengthen the transition from secondary mathematics into postsecondary programs and the workforce.

Over half of the country is a part of the initiative, with support geared toward creating lasting systemic change for the unique state contexts. The findings in this report draw heavily on what LYI states have built and learned. Where the national data show a gap between policy and practice, the work occurring in LYI states shows what closing that gap can look like.

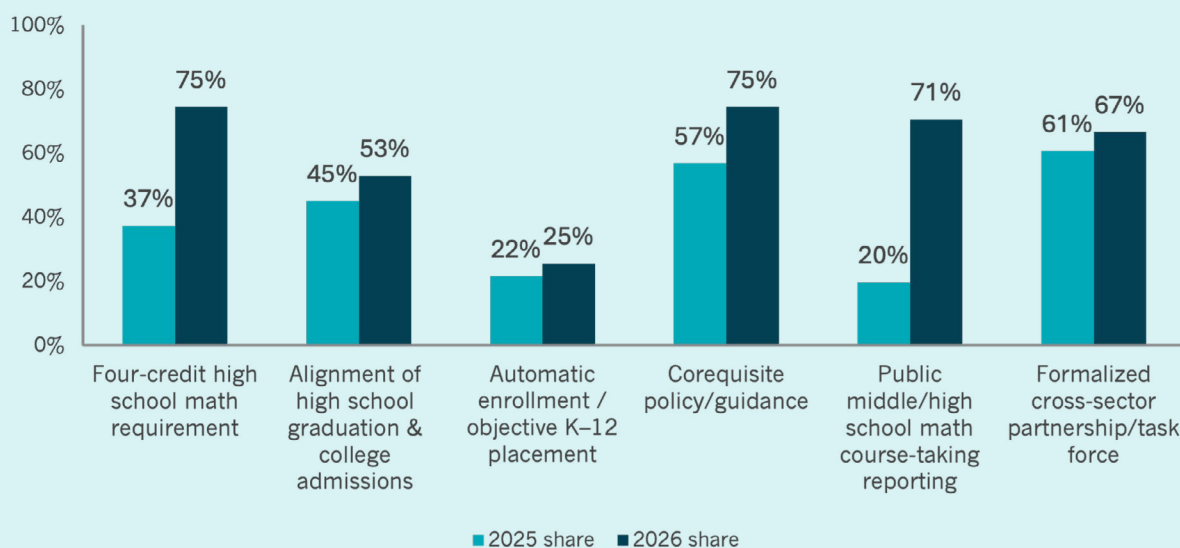


What Changed From the 2025 Report

The 2025 *Charting the Course* report established a preliminary national baseline using six progress measures. The six measures provide directional context rather than a separate accountability system or a fully equivalent year-over-year comparison. The 2026 framework is broader and more specific: It adds 23 indicators and distinguishes planning, formal adoption, implementation, scale, and institutionalization.

Across the 2026 indicators, the national counts are higher in all six areas: four-credit or continuous four years of math; high school graduation/college admissions alignment; automatic enrollment or objective K–12 placement; corequisite policy/guidance and implementation; public secondary course-taking reporting; and formalized cross-sector partnerships (see Figure 1). Because the definitions changed somewhat, these differences should not be interpreted as proof that every increase reflects new implementation.

Figure 1. Percentage of 50 States and the District of Columbia Meeting 2025 Baseline and 2026 Structural Indicators



How to Read the 2026 Report

This 2026 report provides a point-in-time view of math pathways across all states and the District of Columbia. It asks three connected questions:

- Where have states established the policies and structures needed for multiple math pathways?
- Which gaps remain most common?
- What can current state data systems show about how students enter, progress through, and benefit from those pathways?



Five Connected Evidence Lenses

To answer these questions, the report uses five connected evidence lenses that reveal both the scale of activity and the distance between a promising component and a fully functioning math pathway system.

- The 2025 **national baseline lens** from *Charting the Course* (2025) provides a view of where states were a year ago in meeting the six indicators measured and of any changes since then.
- The **national structural review** shows broad patterns across all states and the District of Columbia.
- The **LYI analysis** examines those patterns within participating states.
- The **six-state deeper review** in the LYI Data and Measurement Pilot Study adds implementation context and student outcome evidence that cannot always be located through public documents alone.
- The **LYI state progress reports**, summarized by the evaluation services team at the Texas Advanced Computing Center, describe what LYI states have been working on in 2026, grounding the structural findings in the day-to-day reality of math pathways implementation.

Understanding the Scores and Findings

Structural scores measure the maturity of verified policies, guidance, implementation supports, governance, and reporting. They do not measure state intent, program quality, or causal impact on students. The report does not rank states; it uses scores to identify implementation profiles, common strengths, and next actions.

The **key action section** follows the same sequence: the official structural indicators assessed; a table and chart displaying national and LYI results; an interpretation of the evidence; why the key action matters; a relevant student experience; reported LYI activity; priorities for future work; and illustrative state examples linked to scores and source documents. **Appendices** in this report and the companion dashboard provide more details of the national findings. (See Appendix A for state key action profiles and Appendix B for national indicator-level results.)

The State of Math Pathways Dashboard allows users to move from seeing a national pattern to viewing a specific state, key action, structural indicator, and evidence source:
<https://mathpathways.utdanacenter.org>.

Measuring Progress on the Key Actions and Indicators

The analysis focuses on nine key actions. Each key action includes three or four observable structural indicators that support it, with a total of 29 structural indicators. Each indicator is scored from 0 to 3 using verified evidence. Indicator scores are then summarized within each key action using a staged Scale of Adoption, resulting in a key action score.

The Scale of Adoption scores separate evidence of planning from evidence that a reform is operating and is supported at scale. Tables 1 and 2 explain how each score was assigned. (See Appendix C for a more detailed explanation of the methodology and interpretation of scores.)

Table 1. Structural Indicator Scoring Rubric

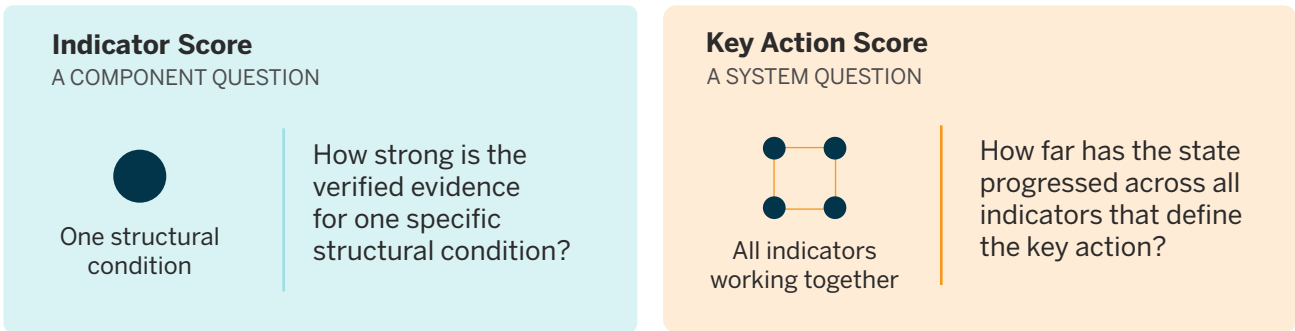
Score	Label	Meaning
0	None	No credible evidence located
1	Low	Planning, stated intent, draft guidance, or an isolated example
2	Medium	Formalized and operating in at least some sites such as districts or colleges
3	High	Operationalized at scale and supported by the required evidence types

Table 2. Key Action Score Translation

Score	Stage	Decision Rule	Meaning
0	Not evident	Unrounded indicator average below 0.50	Little to no credible evidence that work has begun
1	Exploring	Unrounded indicator average from 0.50 through 1.29	Early planning or convening; no formal decision or operating infrastructure
2	Installing implementation	Unrounded indicator average from 1.30 through 2.09	Formal infrastructure is being built or is partially implemented (guidance drafted, pilots designed, funding set aside, data elements defined, contracts/roles set)
3	Initial implementation	Unrounded indicator average from 2.10 through 2.79	Work is operating in practice in at least some districts or institutions, with feedback loops
4	Implemented at scale	Unrounded indicator average from 2.80 through 3.00, plus an institutionalization proof point	Statewide or near statewide; embedded through routine requirements, recurring funding, reporting, or accountability

Why Indicator and Key Action Results Differ

Indicator scores answer a component question: How strong is the verified evidence for one specific structural condition? The key action score answers a system question: How far has the state progressed across all indicators that define the key action?



A state may score highly on one indicator and remain at the “installing” (score of 2 of 4) stage for the key action. For example, a state may offer multiple postsecondary gateway math courses while lacking formally approved secondary pathways, sustained senior year mathematics, or guidance connecting gateway math course options to programs of study. The individual indicator identifies the strong component; the key action score shows whether the components operate together. Indicators are equally weighted within each key action, and a score of 4 requires evidence of institutionalization in addition to a high average. Table 3 presents how a state might be scored on an indicator. (See Appendix C for the methodology and interpretation of these analyses.)

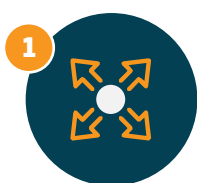
Table 3. Example of Indicator Scores Translated to Key Action Scores

Example	Indicator Scores	Average	Key Action Result	Why
A	2, 2, 1	1.67	2 – Installing	Formal elements exist, but the combined key action has not reached the initial implementation threshold.
B	3, 2, 2	2.33	3 – Initial implementation	The average reaches 2.10 and evidence shows work operating in practice.
C	3, 3, 3	3.00	4 – Implemented at scale (only with an institutionalization proof point)	A high average alone is insufficient; recurring requirements, funding, reporting, or accountability must show institutionalization.

9 Key Actions and the Supporting Structural Indicators

Together, the nine key actions describe the conditions needed for a coherent math pathway system. Course options and acceptance create the architecture; placement and advising determine whether students can enter and navigate the system; funding, educator preparation, instructional materials, and technical assistance support implementation; partnerships coordinate decisions across sectors; and data systems make access, progression, and outcomes visible.

A state may make meaningful progress on one key action, but partial implementation leaves students exposed to gaps at the seams. When all nine are operating together, students encounter high-quality choices that are accessible, accepted, supported, understandable, and connected to future study and careers.



KEY ACTION 1

Expand Opportunities Through Multiple Mathematics Pathways

States establish multiple, rigorous mathematics pathways that expand—not limit—students' academic and career opportunities.

WHAT THE INDICATORS ASSESS

1.1

State or district offices have formally approved and defined third- and fourth-year high school math pathway courses beyond the traditional sequence (Algebra I, Geometry, and Algebra II, or Math I, II, and III, followed by Precalculus).

1.2

State or district policy requires four years or credits of mathematics or continuous math enrollment through senior year.

1.3

Public higher education systems offer multiple credit-bearing gateway math courses (e.g., Statistics, Quantitative Reasoning, Math for Elementary Teachers) in addition to College Algebra, aligned to distinct programs of study.

1.4

State or higher education systems provide guidance or policy explicitly aligning gateway math options with academic and career pathways.

Key Action Legend



Expand Opportunities Through Multiple Mathematics Pathways



Modernize Mathematics for Career Readiness and Civic Engagement



Align and Accept Pathways



Remove Placement Barriers



Support Effective Implementation



Guide Informed Student Decisions



Build Cross-Sector Partnerships



Strengthen Preparation for Pre-Service and In-Service Educators



Capture and Report Progress



KEY ACTION 2

Modernize Mathematics for Career Readiness and Civic Engagement

States ensure mathematics content and pathways reflect both evolving workforce demands and the quantitative skills needed for civic participation, grounded in the belief that every student can succeed in mathematics.

WHAT THE INDICATORS ASSESS

2.1

State agencies or local districts have established formal criteria or a review process to ensure math standards/course frameworks are regularly updated to reflect workforce demands and quantitative civic competencies.

2.2

Workforce, industry, and/or civic interest holders are engaged with education leaders in formal collaborative groups at the statewide or system level that provide the opportunity for industry leaders to give feedback on math curricula or plans.

2.3

State or system guidance explicitly communicates that all math pathways are academically challenging and embed opportunities for further study.



KEY ACTION 3

Align and Accept Pathways

Postsecondary institutions explicitly accept multiple mathematics courses for admission and for transfer between two-year and four-year institutions.

WHAT THE INDICATORS ASSESS

3.1

State or local policy sets high school graduation requirements that are formally aligned with public college admissions requirements regarding acceptable math courses.

3.2

Public higher education institutions explicitly accept multiple math pathway courses for admissions purposes (not limited to Algebra II, Integrated Math III, and Precalculus).

3.3

Statewide or system-level transfer agreements ensure pathway-aligned math courses count toward program of study requirements at four-year institutions (not only as general education electives).



KEY ACTION 4

Remove Placement Barriers

Education leaders implement objective placement criteria that promote broad access to advanced K–12 mathematics opportunities and college-level gateway mathematics courses.

WHAT THE INDICATORS ASSESS

4.1

State or district policy establishes objective, multiple-measure criteria (e.g., GPA, state or local assessment data) for placement into advanced or accelerated secondary math including automatic enrollment policies (where applicable).

KEY ACTION 4

Remove Placement Barriers Cont.

- 4.2** Public higher education institutions implement multiple-measures placement policies developed at the local or systemwide level for gateway math courses.
- 4.3** Corequisite support models are implemented at scale to enable direct enrollment into college-level math courses with concurrent academic support.



KEY ACTION 5

Support Effective Implementation

States provide resources to support high-quality implementation of all mathematics pathways, particularly in historically underserved communities.

WHAT THE INDICATORS ASSESS

- 5.1** State provides dedicated funding or grant programs to support the implementation of math pathways, with prioritization for historically underserved communities.
- 5.2** State or local K–12 districts provide or endorse quality standards, instructional frameworks, or high-quality instructional materials criteria specific to secondary math pathway courses.
- 5.3** Ongoing implementation supports exist (e.g., technical assistance providers, coaching networks, communities of practice) for districts and colleges.
- 5.4** State, district, or higher education systems monitor equitable access and participation in math pathways implementation and use data to target support and resources.



KEY ACTION 6

Guide Informed Student Decisions

Districts, schools, and universities provide students and families comprehensive and responsive advising from middle school through high school and into postsecondary to enable informed decisions about courses and pathways.

WHAT THE INDICATORS ASSESS

- 6.1** Public-facing materials clearly describe available math pathways and how each connects to postsecondary programs and in-demand careers.
- 6.2** State or education system/institution policy provides advising frameworks or guidance for middle school through postsecondary transitions that support informed math pathway selection.
- 6.3** Advising tools (e.g., course planners, career pathway maps) are aligned across secondary and higher education systems.



KEY ACTION 7

Build Cross-Sector Partnerships

States establish mathematics pathways through formal cross-sector partnerships with clear governance, roles, and shared accountability.

WHAT THE INDICATORS ASSESS

7.1

State has a formal cross-sector governance structure (e.g., task force, steering committee) including K–12, community colleges, four-year postsecondary institutions, and other interest holders.

7.2

Roles, decision-making authority, and accountability structures for math pathway development and monitoring are clearly defined.

7.3

Cross-sector team meets regularly and produces documented outputs (e.g., meeting minutes, action plans, progress reports, policy recommendations, alignment guidance, monitoring reports).



KEY ACTION 8

Strengthen Preparation for Pre-Service and In-Service Educators

States invest in educator preparation programs, professional development, and high-quality instructional materials for all mathematics pathways.

WHAT THE INDICATORS ASSESS

8.1

State defines or signals criteria for high-quality instructional materials specific to secondary math pathway courses.

8.2

Comprehensive professional learning opportunities are available for secondary and higher education faculty implementing math pathway courses.

8.3

Educator preparation programs incorporate content aligned to multiple math pathways (where applicable).



KEY ACTION 9

Capture and Report Progress

States establish comprehensive public reporting systems that provide transparent, disaggregated data on mathematics course-taking patterns and sequences, student progression, and outcomes across K–12 and postsecondary education.

WHAT THE INDICATORS ASSESS

9.1

State publicly reports middle school and high school math course-taking patterns, disaggregated by student subgroups.

9.2

State reports student access, progression and completion within math pathways (e.g., course sequences, gateway completion).

9.3

K–12 and postsecondary data systems are linked or coordinated to track math pathway participation and outcomes longitudinally.

Findings at a Glance

Across all states and the District of Columbia, the most mature elements of math pathways reform tend to be discrete policy or program components: gateway course options, corequisite supports, placement reform, technical assistance, governance structures, and data infrastructure. The less mature elements tend to require coordination and sustained institutional change: K–12 access policy, dedicated funding, math pathway-specific materials criteria, aligned educator preparation, and public math pathway reporting.

This distinction between mature and less mature elements matters because discrete components can often be adopted by one agency or system, while coherent pathways require several sectors to change together and collaboratively. A higher education system can create a new gateway math course, for example, without changing high school advising or admissions guidance, or a state can link data systems without deciding which pathway measures should be reported publicly. As math pathways reform progresses, it should focus on connecting, resourcing, and sustaining the changes already underway.

Evidence Used

Table 4 describes the role of each evidence lens in determining the content of this 2026 report, including the baseline established in the 2025 report.

Table 4. Evidence Lenses for Understanding Math Pathways Implementation

Evidence Lens	Coverage	Role
2025 National Baseline	All 50 states and the District of Columbia, six preliminary public measures	Provides historical context and a limited year-over-year comparison
National Structural Review	All 50 states and the District of Columbia	Shares primary national findings across 29 structural indicators
LYI State Review	26 current LYI states	Shows implementation patterns among participating states
Six-State Deeper Review	Alabama, Georgia, Kansas, Massachusetts, North Carolina, Oregon	Adds direct clarification, nonpublic evidence where available, and student-outcome analysis
LYI State Progress Reports	24 of 26 LYI states	Describes what LYI states reported working on in 2026, organized by the nine key actions

Evidence Used Cont.

The following tables and figures summarize the math pathway implementation findings. Table 5 shows the overall structural indicator means by key action and the key action scores for all states and LYI states. Table 6 specifies the number of all states and LYI states meeting the key action threshold. Figure 2 shows all states and LYI states' structural indicator means by key action side by side, and Figure 3 presents the percentage of all states and LYI states meeting the structural indicator threshold score of at least 2, signifying that the indicator is formalized and active in some places in the state.

Table 5. Mean Structural Indicator and Key Action Scores for 50 States and the District of Columbia and LYI States

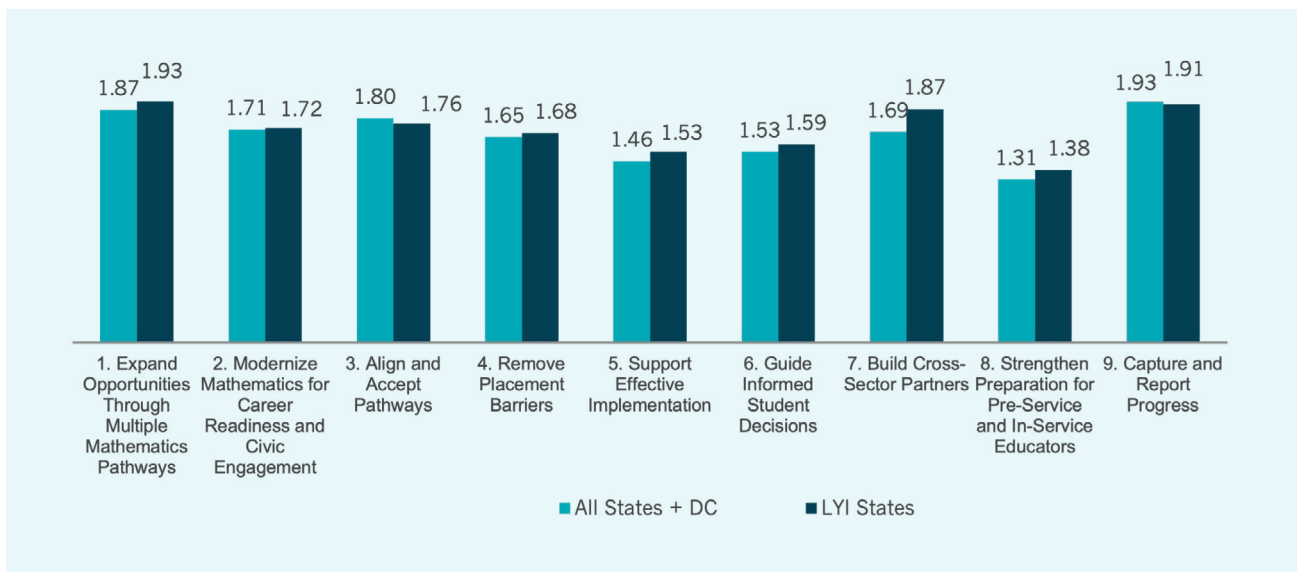
#	Key Action	All Mean Indicator 0–3	LYI Mean Indicator 0–3	All Mean Key Action 0–4	LYI Mean Key Action 0–4
1	Expand Opportunities Through Multiple Mathematics Pathways	1.87	1.93	2.18	2.31
2	Modernize Mathematics for Career Readiness and Civic Engagement	1.71	1.72	2.02	2
3	Align and Accept Pathways	1.80	1.76	2.18	2.12
4	Remove Placement Barriers	1.65	1.68	1.9	1.96
5	Support Effective Implementation	1.46	1.53	1.65	1.77
6	Guide Informed Student Decisions	1.53	1.59	1.78	1.96
7	Build Cross-Sector Partnerships	1.69	1.87	1.94	2.15
8	Strengthen Pre- and In-Service Educators	1.31	1.38	1.57	1.69
9	Capture and Report Progress	1.93	1.91	2.31	2.27

Table 6. Key Action Implementation Status and Interpretation

#	Key Action	States at 3+ (initial implemen- tation or higher)	LYI States at 3+ (initial implemen- tation or higher)	High-Level Finding Interpretation
1	Expand Opportunities Through Multiple Mathematics Pathways	14 of 51	7 of 26	Postsecondary gateway options are common; formal secondary approval, senior year participation, and pathway guidance remain uneven.
2	Modernize Mathematics for Career Readiness and Civic Engagement	6 of 51	3 of 26	Formal curricular update processes are more common than sustained workforce/civic engagement and guidance about academic rigor and further study.
3	Align and Accept Pathways	14 of 51	5 of 26	Transfer agreements are more developed than explicit admissions recognition and graduation/admissions alignment.
4	Remove Placement Barriers	4 of 51	2 of 26	Postsecondary placement and corequisite reforms substantially outpace objective secondary placement and automatic enrollment.
5	Support Effective Implementation	6 of 51	5 of 26	Technical assistance is more common than recurring funding and secondary pathway-specific quality criteria.
6	Guide Informed Student Decisions	3 of 51	3 of 26	Advising frameworks are more common than cross-sector tools that stay current from middle school through college.
7	Build Cross-Sector Partnerships	13 of 51	10 of 26	Formal structures and meetings exist more often than explicit authority, accountability, and continuity.
8	Strengthen Preparation for Pre-Service and In-Service Educators	2 of 51	1 of 26	In-service professional learning is more common than secondary high-quality materials criteria and pre-service alignment.
9	Capture and Report Progress	17 of 51	7 of 26	Linked data infrastructure is widespread; public math pathway-specific access, progression, and completion reporting are less mature.

✓ Evidence Used Cont.

Figure 2. Mean Structural Indicator Scores by Key Action for 50 States and the District of Columbia and LYI States



Note. Bars show the mean indicator scores on a 0–3 scale. Values describe the strength of verified structural evidence and are not rankings of state commitment or student impact.

Figure 3. Percentage of 50 States and D.C. and LYI States Meeting Structural Indicator Threshold (at least 2 on 0–3 scale)



Note. Indicators are presented in key action order, not ranked by percentage.



Five Cross-Cutting Findings

All states and the District of Columbia have made some progress in math pathways reform. Across the nine key actions, five cross-cutting patterns show where math pathways reform has advanced and where the next phase of work is most urgent. These findings are important because students experience the pathway as a connected sequence. Progress in one sector can be undermined when course access, advising, admissions, placement, transfer, funding, educator preparation, or reporting remains disconnected.

The Central Finding

Across the country, many states have built important components of modern math pathways. The unfinished work is in connecting those components into coherent, durable systems that students can navigate and states can monitor. The five findings below highlight where progress has been made and where further work is needed.

01

Math pathway design outpaces implementation support.

States have expanded high school and postsecondary math course options faster than they have built recurring funding, material-review systems, educator preparation, and public monitoring.

02

Postsecondary reforms often precede student access reform in secondary education.

Postsecondary education has created destinations through multiple gateway math courses, placement reform, and corequisite support. The next step is ensuring that secondary placement, course access, advising, and admissions signals prepare students to reach those destinations.

03

Data infrastructure outpaces public math pathway reporting.

A linked data system is foundational, but it does not automatically produce shared course definitions, longitudinal measures, disaggregated reports, or public products.

04

In-service learning outpaces pre-service redesign.

Professional learning can be added to existing systems. Changing educator preparation, faculty expectations, and instructional materials approval require deeper institutional alignment.

05

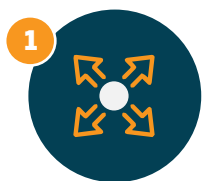
Institutionalization of math pathways is the next phase.

States now need to connect promising components so that math pathways do not depend on isolated programs, local champions, or students knowing how to navigate inconsistent rules.

Findings by Key Action

The nine key actions describe key policies, practices, and systemic changes that allow for the effective implementation of math pathways at scale. Included in each key action are three or four supporting structural indicators.

The sections that follow share the indicator findings, national mean adoption scores, and examples of implementation in practice. These examples are illustrative, not endorsements or rankings. They show how states are translating broad pathway goals into courses, policies, advising tools, partnerships, and reporting systems.



KEY ACTION 1

Expand Opportunities Through Multiple Mathematics Pathways

States establish multiple, rigorous mathematics pathways that expand—not limit—students' academic and career opportunities.

WHAT THE INDICATORS ASSESS

1.1

State or district offices have formally approved and defined third- and fourth-year high school math pathway courses beyond the traditional sequence (Algebra I, Geometry, and Algebra II, or Math I, II, and III, followed by Precalculus).

1.2

State or district policy requires four years or credits of mathematics or continuous math enrollment through senior year.

1.3

Public higher education systems offer multiple credit-bearing gateway math courses (e.g., Statistics, Quantitative Reasoning, Math for Elementary Teachers) in addition to College Algebra, aligned to distinct programs of study.

1.4

State or higher education systems provide guidance or policy explicitly aligning gateway math options with academic and career pathways.

Table 7. Key Action 1: What the Evidence Shows

2026 Finding	Result
 National key action adoption score (0–4)	Installing 2.18 out of 4
 States at initial implementation higher	14 of 51
 LYI states at initial implementation higher	7 of 26
 National mean indicator score	1.87 of 3
 Most widely implemented indicator	1.3 Multiple credit-bearing gateway math courses – 41 of 51 at score 2+
 Least widely implemented indicator	1.1 Approved and defined 3rd- and 4th-year high school math pathway courses – 31 of 51 at score 2+
 2025 context	2025 national proxy: 19 of 51 jurisdictions (states and the District of Columbia) 37% had a four-credit mathematics requirement

What We Found

As shown in Table 7 and Figure 4, national implementation of multiple postsecondary gateway mathematics courses is the strongest component of Key Action 1: 41 of 51 jurisdictions meet the implementation threshold for indicator 1.3. The threshold is met by:

38

jurisdictions for four years or credits or continuous mathematics course taking requirement through senior year

33

for guidance aligning gateway math course options to programs of study and careers

31

for formally approved and defined secondary math pathway courses



The pattern shows that many states have built postsecondary destinations before establishing a fully coherent secondary-to-postsecondary route. Among LYI states, 23 of 26 meet indicator 1.3, compared with 16 of 26 for indicator 1.1. Course expansion therefore remains uneven at the point where students first need access and information.



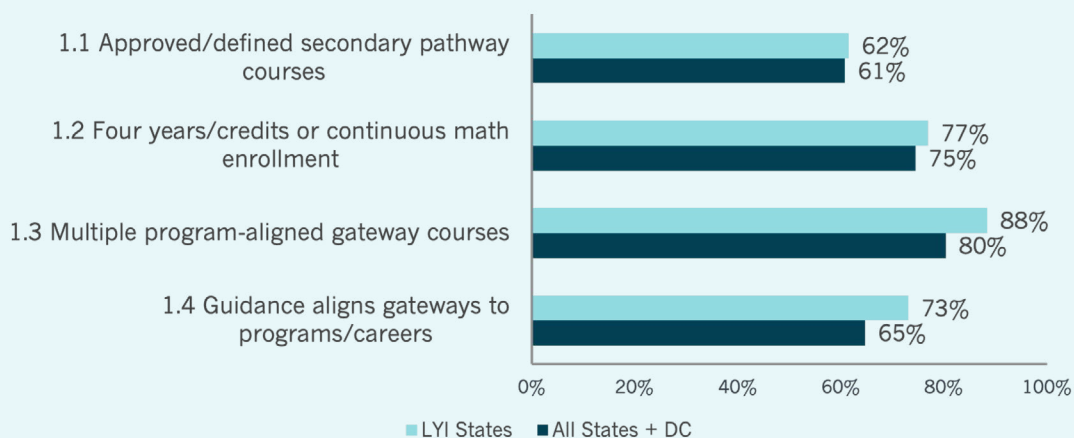
What We Found

The progress reported by LYI states reflects multiple stages of pathway development rather than a single pattern of implementation. While some states—including Hawai‘i, Indiana, Maryland, Nevada, Oregon, Pennsylvania, Utah, and the District of Columbia—are developing new courses and pathways, others have progressed to implementation (Alabama, Kansas, New Mexico), revision of existing offerings (Alabama, Massachusetts), or alignment of secondary coursework with broader pathway systems (Oregon, Utah). Indiana and Massachusetts also reported communication efforts to encourage broader adoption of new pathways. Collectively, these efforts suggest that many states are shifting from designing individual courses toward building and scaling more coherent pathway systems.

For students, the distinction between offering courses and

building pathways is significant. A student may encounter multiple gateway mathematics options upon entering college but have had limited opportunities in high school to prepare for or understand those options. States with more mature pathway systems have moved beyond approving new courses to ensuring that courses satisfy graduation and college admissions expectations, connect to programs of study and careers, and are supported by clear guidance for students and educators. Expanding opportunities ultimately depends not only on increasing course availability, but also on creating coherent pathways that preserve students’ future options and enable informed decision making throughout the transition from secondary to postsecondary education.

Figure 4. Indicator-Level Implementation for Key Action 1: Expand Opportunities Through Multiple Mathematics Pathways (percentage of jurisdictions scoring 2 or 3 on 0–3 scale)



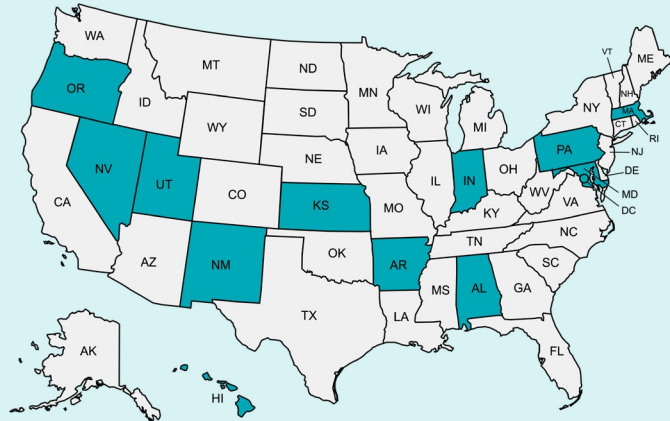
Why This Matters

Expanding math pathway opportunities requires more than increasing the number of course titles. Students need confidence that courses such as Statistics, Data Science, Quantitative Reasoning, and Applied Mathematics are rigorous, widely recognized, and clearly connected to postsecondary programs of study and careers. Without alignment, new course options can function as isolated electives rather than as integral components of a coherent math pathway. A coherent system preserves future options by connecting course approval, senior year participation, advising, admissions, gateway mathematics, and program requirements.

LYI State 2026 Priorities

Thirteen states reported priorities related to expanding math pathway opportunities, reflecting multiple stages of development.

These activities suggest that many states are moving beyond expanding course options to building more coherent math pathway systems.



- Eight states (**Hawai'i, Indiana, Maryland, Nevada, Oregon, Pennsylvania, Utah, and the District of Columbia**) were developing new mathematics courses or pathways, while **Alabama, Kansas, and New Mexico** had progressed to implementation.
- **Alabama** and **Massachusetts** reported revising existing pathway courses.
- **Arkansas** and the **District of Columbia** were developing standards to support new math pathways.
- **Oregon** and **Utah** were working to better align mathematics courses within broader pathway structures.
- **Indiana** and **Massachusetts** reported communication efforts to encourage wider adoption of new math pathways.
- Across these efforts, the most frequently reported course areas were quantitative reasoning (**Alabama, Hawai'i, Utah**), data science (**Arkansas, Indiana, Pennsylvania**), and statistics (**Massachusetts, Nevada**).



When Math Pathways Work for Students

An additional, rigorous math course expands opportunity only when students understand where it leads and the education system consistently recognizes its value. Course availability, advising, acceptance, and alignment must move together.



Recommended Focus for Future Work

Connect formal secondary course approval, sustained mathematics course taking through senior year, postsecondary gateway math course options, advising, admissions, transfer, and program-of-study requirements into one pathway architecture.

Key Action 1: State Examples



Ohio



Non-LYI State



Key Action 1 score= **4**



Implemented at Scale

Ohio has formally approved multiple upper-level secondary math pathway courses that satisfy the Algebra II/Math III graduation requirements. The state pairs course approval with state standards and alignment to postsecondary gateway mathematics. Ohio demonstrates how course options, graduation credit, and postsecondary alignment are connected within a statewide architecture.³



Georgia



LYI State



Key Action 1 score= **4**



Implemented at Scale

Georgia combines approved fourth-credit secondary options, connecting to multiple postsecondary gateway math courses, and public guidance, showing University System of Georgia/Technical College System of Georgia recognition. Here, math pathway expansion becomes credible when secondary and postsecondary rules are visible together.⁴

 [Deeper Review State \(p. 64\)](#)



Oregon



LYI State



Key Action 1 score= **2**



Installing

Oregon has aligned high school graduation and college admissions language and is building the communication and implementation supports for a broader 2+1 pathway system. This middle-stage example reveals that important alignment can be in place while the full key action remains at “installing.”⁵

 [Deeper Review State \(p. 68\)](#)



KEY ACTION 2

Modernize Mathematics for Career Readiness and Civic Engagement

States ensure mathematics content and pathways reflect both evolving workforce demands and the quantitative skills needed for civic participation, grounded in the belief that every student can succeed in mathematics.

WHAT THE INDICATORS ASSESS

2.1

State agencies or local districts have established formal criteria or a review process to ensure math standards/course frameworks are regularly updated to reflect workforce demands and quantitative civic competencies.

2.2

Workforce, industry, and/or civic interest holders are engaged with education leaders in formal collaborative groups at the statewide or system level that provide the opportunity for industry leaders to give feedback on math curricula or plans.

2.3

State or system guidance explicitly communicates that all math pathways are academically challenging and embed opportunities for further study.

Table 8. Key Action 2: What the Evidence Shows

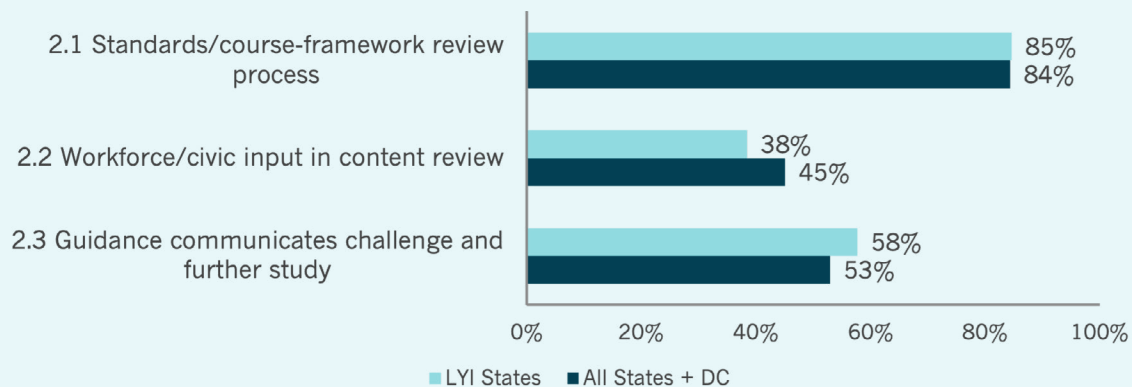
2026 Finding	Result
 National key action adoption score (0–4)	Installing 2.02 out of 4
 States at initial implementation higher	6 of 51
 LYI states at initial implementation higher	3 of 26
 National mean indicator score	1.71 of 3
 Most widely implemented indicator	2.1 Formal process for updating standards/course frameworks – 43 of 51 at score 2+
 Least widely implemented indicator	2.2 Formal workforce, industry, and/or civic engagement in math content review – 23 of 51 at score 2+
 2025 context	No comparable 2025 national proxy included in the preliminary six-measure scan

What We Found

As Table 8 and Figure 5 demonstrate, formal standards and course framework review processes to reflect workforce demands and civic competencies are widespread: 43 of 51 jurisdictions meet the threshold for indicator 2.1. Formal workforce or civic engagement is less common (23 of 51), as is state or system guidance communicating that all pathways are academically challenging and preserve opportunities for further study (27 of 51). These differences suggest that many states have a mechanism for periodically revising mathematics content but do not yet have an ongoing feedback loop to ensure that revisions continue to reflect changing postsecondary, workplace, and civic demands.

States need mechanisms for employers, workforce agencies, civic partners, postsecondary faculty, K–12 educators, and students to identify changing quantitative demands and translate them into course expectations. Without that recurring process, a revised course can quickly become outdated. Clear public communication that math pathway options are academically challenging and preserve opportunities for further study will strengthen these efforts. The next step is to make external input and public messaging regular, documented parts of the review process.

Figure 5. Indicator-Level Implementation for Key Action 2: Modernize Mathematics for Career Readiness and Civic Engagement (percentage of jurisdictions scoring 2 or 3 on 0–3 scale)



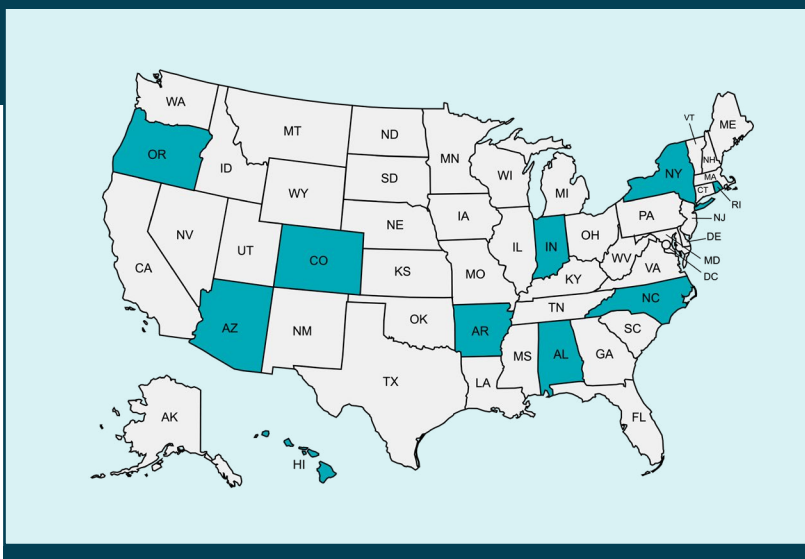
Why This Matters

Students are preparing for a world in which they must interpret data, evaluate quantitative claims, compare financial choices, understand risk, and use mathematical reasoning across health, business, public policy, technology, and everyday civic life. When course content does not reflect these demands, students may complete required mathematics without being equipped to make decisions beyond the classroom. Recurring review and feedback processes involving appropriate constituencies help keep math pathways responsive and relevant as technologies, occupations, and the quantitative demands of public life continue to change.

LYI State 2026 Priorities

Ten states reported working on revising state standards to reflect modern math and redesigning courses or pathways for career readiness and civic engagement.

- **Arkansas** was revising its College Algebra course objectives.
- **Arizona, Colorado, Hawai'i, Indiana, and North Carolina** were revising state standards to reflect modern mathematics.
- **Alabama, New York, and Oregon** were revising or redesigning courses or pathways explicitly to strengthen workforce and career readiness. **Oregon** was redesigning mathematics in Career and Technical Education.
- **Rhode Island** was finalizing frameworks for approved advanced mathematics credits.



When Math Pathways Work for Students

Students should encounter mathematics that is both challenging and connected to the quantitative demands of further study, careers, and civic life. Modernization should broaden relevance without creating a hierarchy of “strong” and “weak” pathways.



Recommended Focus for Future Work

Make workforce and civic engagement a documented part of recurring standards/course review. Communicate that all math pathways are academically challenging, preserve opportunities for further study, and teach quantitative skills relevant to work and civic life.

Key Action 2: State Examples



Tennessee

 Non-LYI State  Key Action 2 score= **2**  Installing

Tennessee used cross-sector input to modernize a longstanding course. The State Board of Education and Department of Education worked with K–12, higher education, and workforce partners to redesign Algebra II standards and to document how the revisions better align with postsecondary and workforce needs. The state has a formal standards-review cycle and documented cross-sector workforce activity; however, recurring workforce/civic input and public guidance about all math pathways are not yet equally developed.⁶



North Carolina

 LYI State  Key Action 2 score= **3**  Initial Implementation

North Carolina has an established process for updating mathematics expectations alongside guidance that presents multiple pathways as academically meaningful options rather than lower-level alternatives. The state combines formal standards processes, mathematics collaboratives, and public pathway messaging. Modernization is strengthened when review structures and communication about pathway value operate together.⁷

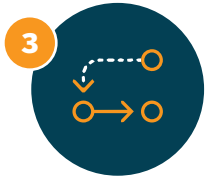
 [Deeper Review State \(p. 67\)](#)



Ohio

 Non-LYI State  Key Action 2 score= **3**  Initial Implementation

Ohio translates modern content into concrete course options. Its Algebra II-equivalent pathways include Advanced Quantitative Reasoning, Data Science Foundations, Discrete Mathematics/Computer Science, and Statistics and Probability, with course resources that emphasize reasoning, modeling, data analysis, and real-world applications. Because Algebra II is a graduation requirement, the state illustrates how to connect modernization to graduation policy and usable implementation resources.⁸



KEY ACTION 3

Align and Accept Pathways

Postsecondary institutions explicitly accept multiple mathematics courses for admission and for transfer between two-year and four-year institutions.

WHAT THE INDICATORS ASSESS

3.1

State or local policy sets high school graduation requirements that are formally aligned with public college admissions requirements regarding acceptable math courses.

3.2

Public higher education institutions explicitly accept multiple math pathway courses for admissions purposes (not limited to Algebra II, Integrated Math III, and Precalculus).

3.3

Statewide or system-level transfer agreements ensure pathway-aligned math courses count toward program of study requirements at four-year institutions (not only as general education electives).

Table 9. Key Action 3: What the Evidence Shows

2026 Finding	Result
 National key action adoption score (0–4)	Installing 2.18 out of 4
 States at initial implementation higher	14 of 51
 LYI states at initial implementation higher	5 of 26
 National mean indicator score	1.80 of 3
 Most widely implemented indicator	3.3 Transfer agreements ensure pathway-aligned math courses count toward program-of-study requirements – 38 of 51 at score 2+
 Least widely implemented indicator	3.1 and 3.2 (tie) Graduation/admissions alignment and acceptance of multiple math pathway courses for admissions – 27 of 51 each at score 2+
 2025 context	2025 national proxy: 23 of 51 jurisdictions 45% aligned high school graduation and public college admissions requirements

What We Found

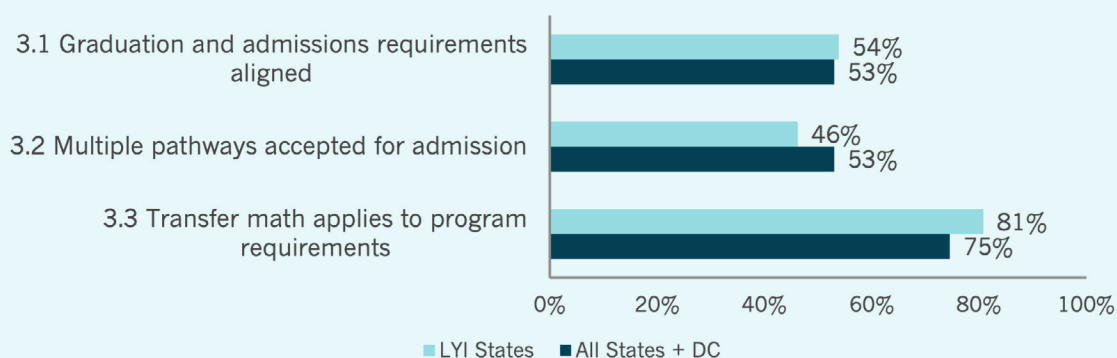
States have made real progress in ensuring that math pathway credit is recognized at transfer and program entry, but far less progress in making sure that high school students know which math pathway courses would actually be accepted (see Table 9 and Figure 6).

Nationally, transfer agreements between higher education institutions or systems are more established than the earlier signals that high school students receive about college admissions. Seventy-five percent of jurisdictions meet the threshold for program-applicable transfer agreements, while 53% meet the thresholds for graduation/admissions alignment and explicit acceptance of multiple math pathway courses for admissions.

The result is an uneven sequence: A math pathway course may transfer once a student is in college, but a high school student or counselor may still be unsure whether the same course is recognized for admission or aligned to the intended major. States can reduce that uncertainty by publishing one consistent, cross-sector map of graduation, admission, placement, transfer, and program requirements.

These findings reflect research on the misalignment between high school mathematics requirements and college admissions cited in the 2025 *Charting the Course* report.⁹ A 2024 review of admissions requirements at 98 broad-access, public four-year institutions nationwide found that high school graduation requirements and college admissions expectations align in fewer than half of states. Sixty-nine of the 98 institutions require Algebra II or its equivalent for admission, but only 20 are in states that require Algebra II for high school graduation. Only 18 states included at least one institution that explicitly expressed that statistics counts toward the mathematics admissions requirement, even though statistics is one of the most common alternative pathway courses that states are building. In nine states, no institution in the sample specifically required Algebra II, leaving students without a clear signal to plan around.

Figure 6. Indicator-Level Implementation for Key Action 3: Accept and Align Pathways (percentage of jurisdictions scoring 2 or 3 on 0–3 scale)



Why This Matters

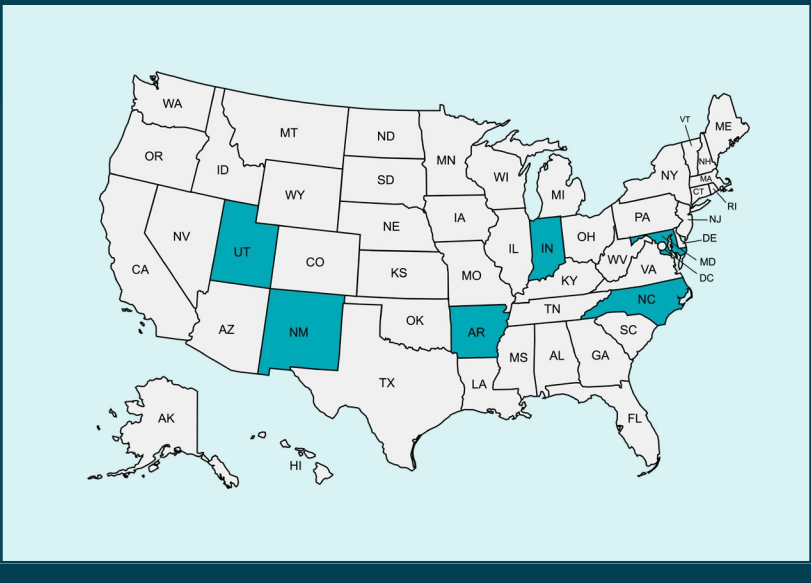
Families hesitate to choose a non-traditional high school math course when the college admission language is unclear, even when that math course is well matched to the student's intended program of study—and that hesitation makes sense. An admissions rule, placement rule, or program requirement might still privilege the traditional sequence. The reverse problem also matters: Outdated admissions requirements can push students into courses that do not fit their intended field of study. Alignment should ensure that each course is recognized, applicable, and clearly connected to the student's next step.

Research shows that students who complete AP Statistics are just as likely to earn a bachelor's degree and go on to similar, long-term earnings as students who complete AP Calculus.¹⁰ They are also well represented in mathematically intensive fields. Yet a national survey of admissions officers found that 75 percent rank AP Calculus as carrying the most weight in admissions decisions, compared with 38 percent who say the same about AP Statistics.¹¹

This is a perception problem—not a rigor problem—and it can push students toward the traditional mathematics sequence, even when a different math pathway would serve them just as well.

LYI State 2026 Priorities

Six states were conducting alignment work across education systems, courses, or institutions.

- Five states (**Indiana, Maryland, North Carolina, New Mexico, and Utah**) explicitly reported collaborating across K–12 and higher education to improve math pathways.
- 
- **Maryland** was aligning postsecondary admissions requirements with changes in K–12 mathematics.
 - **Arkansas, New Mexico, and Utah** were standardizing or aligning courses. Arkansas was aligning high school Algebra II and Algebra III with College Algebra. **New Mexico** focused on standardizing postsecondary courses to support transfer across institutions. Utah focused on alignment between K–12 and higher education.
 - **Indiana** was obtaining higher education feedback on a secondary data science pathway.
 - **North Carolina** was meeting with university admissions and enrollment officers to discuss the implication of proposed high school math standards and pathways.



Recommended Focus for Future Work

Publish explicit admission and transfer recognition for math pathway courses and align them to graduation, placement, advising, and program-of-study requirements.



When Math Pathways Work for Students

Students should not have to choose between the course that best fits their goals and the course they believe a college will accept. Clear, current acceptance and applicability rules reduce unnecessary risk.

Key Action 3: State Examples



Georgia

 LYI State

 Key Action 3 score= **3**

 Initial Implementation

Georgia publishes approved secondary course options and postsecondary recognition guidance in a connected framework, helping students and advisors see how courses satisfy graduation and admissions expectations.¹²

 [Deeper Review State \(p. 64\)](#)



Florida

 Non-LYI State

 Key Action 3 score= **3**

 Initial Implementation

Florida's statewide articulation framework protects program-applicable transfer and provides common structures for alignment across institutions.¹³



KEY ACTION 4

Remove Placement Barriers

Education leaders implement objective placement criteria that promote broad access to advanced K–12 mathematics opportunities and college-level gateway mathematics courses.

WHAT THE INDICATORS ASSESS

4.1

State or district policy establishes objective, multiple-measure criteria (e.g., GPA, state or local assessment data) for placement into advanced secondary math, including automatic enrollment policies (where applicable).

4.2

Public higher education institutions implement multiple-measure placement policies developed at the local or systemwide level for gateway math courses.

4.3

Corequisite support models are implemented at scale to enable direct enrollment into college-level math courses with concurrent academic support.

Table 10. Key Action 4: What the Evidence Shows

2026 Finding	Result
 National key action adoption score (0–4)	Installing 1.90 out of 4
 States at initial implementation higher	4 of 51
 LYI states at initial implementation higher	2 of 26
 National mean indicator score	1.65 of 3
 Most widely implemented indicator	4.2 Multiple-measures placement policies for postsecondary gateway math courses – 40 of 51 at score 2+
 Least widely implemented indicator	4.1 Objective, multi-measure criteria for advanced or accelerated secondary math placement – 13 of 51 at score 2+
 2025 context	2025 national proxy: 11 of 51 jurisdictions 22% met the automatic enrollment measure; 29 of 51 (57%) had corequisite policy/guidance

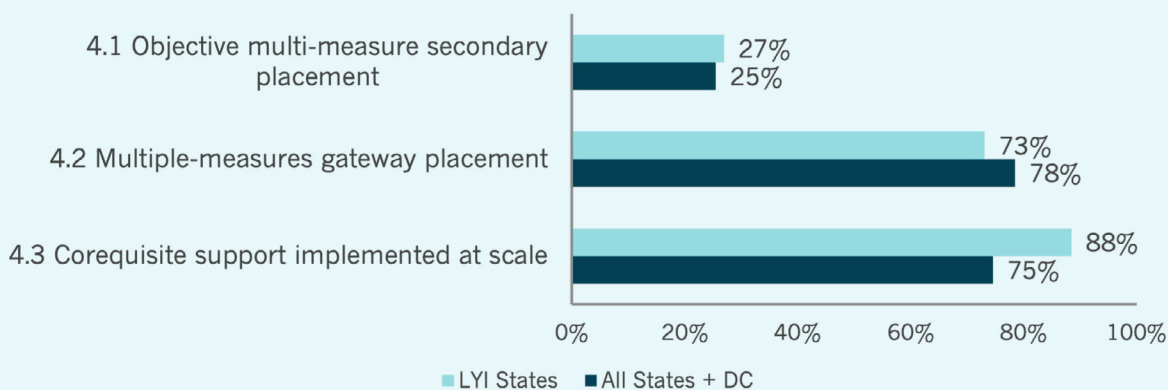


What We Found

This key action shows the clearest sequence of actions between education sectors (see Table 10 and Figure 7). Forty of 51 jurisdictions meet the threshold for postsecondary multiple-measure placement and 38 meet it for corequisite support, compared with 13 for objective multiple-measure placement or automatic enrollment in advanced secondary math. Higher education making progress first, before secondary systems, can be constructive because it creates viable destinations, and such reforms can prevent students from losing time and credit after college enrollment. The unfinished task is ensuring students have equitable access to the high school courses and the advising needed to reach those destinations.

Corequisite support has shown promising results: Gateway course success rates have more than tripled in states such as California and Georgia since corequisite models replaced stand-alone remedial sequences. At the same time, postsecondary reforms cannot fully compensate for unequal access earlier in the pathway. Students of color and low-income students are disproportionately placed into lower-level mathematics courses even when prior achievement is comparable to that of their peers. Objective criteria, multiple measures, and automatic enrollment can broaden participation in advanced secondary mathematics before students reach college. Where states have adopted such policies, participation has increased among students who had historically been excluded.¹⁴

Figure 7. Indicator-Level Implementation for Key Action 4: Remove Placement Barriers (percentage of jurisdictions scoring 2 or 3 on 0–3 scale)





Why this Matters

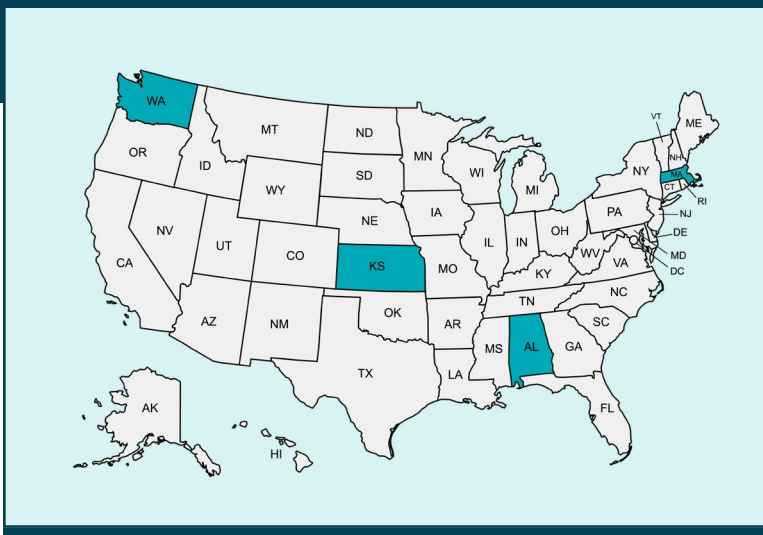
Placement rules allocate opportunity. Black students make up 15 percent of high school enrollment nationally but six percent of AP mathematics enrollment; Latino students make up 27 percent of high school enrollment but 19 percent of AP mathematics enrollment. Objective multiple-measure policies can make access more consistent and transparent.¹⁵ When advanced secondary mathematics depends on a single test, an informal recommendation, or uneven local practice, students with similar preparation can receive different opportunities.

Objective multiple measures and automatic enrollment can make access more consistent, while postsecondary multiple measures and corequisite support can prevent students from being diverted into long, remedial, noncredit sequences. The two sectors need to operate as one access strategy.

LYI State 2026 Priorities

Four states reported revising math placement practices.

- **Alabama** reported updating statewide mathematics placement guidelines to align with modern pathways and to support appropriate placement into transfer and workforce mathematics courses.
- **Washington** was improving consistency and equity in the use of high school transcripts for placement in state universities and the technical college system.
- **Kansas** was working on implementing corequisite supports.
- **Massachusetts** was developing guidance for districts to make data-driven student placement decisions and policies.





Recommended Focus for Future Work

Pair existing postsecondary reforms with objective multiple-measure secondary placement and automatic enrollment (where appropriate).

Key Action 4: State Examples



North Carolina

-  LYI State
-  Key Action 4 score= **2**
-  Installing

North Carolina law requires automatic enrollment into the next advanced mathematics course for eligible students in grades 6–12, including high-school-level mathematics in grade 8.¹⁶

 [Deeper Review State \(p. 67\)](#)



Nevada

-  LYI State
-  Key Action 4 score= **2**
-  Installing

Nevada has a Board of Regents corequisite policy and authorized multiple measures for gateway math course placement.¹⁷



When Math Pathways Work for Students

A student's access to advanced mathematics should not depend on one test or a subjective recommendation. Objective criteria and timely support make opportunity more consistent before and after college entry.



KEY ACTION 5

Support Effective Implementation

States provide resources to support high-quality implementation of all mathematics pathways, particularly in historically underserved communities.

WHAT THE INDICATORS ASSESS

- 5.1** State provides dedicated funding or grant programs to support implementation of math pathways, with prioritization for historically underserved communities.
- 5.2** State or local K–12 districts provide or endorse quality standards, instructional frameworks, or high-quality instructional materials criteria specific to secondary math pathway courses.
- 5.3** Ongoing implementation supports exist (e.g., technical assistance providers, coaching networks, communities of practice) for districts and colleges.
- 5.4** State, district, or higher education systems monitor equitable access and participation in math pathways implementation and use data to target support and resources.

Table 11. Key Action 5: What the Evidence Shows

2026 Finding	Result
 National key action adoption score (0–4)	Installing 1.65 out of 4
 States at initial implementation higher	6 of 51
 LYI states at initial implementation higher	5 of 26
 National mean indicator score	1.46 of 3
 Most widely implemented indicator	5.4 Monitoring equitable access and participation and using data to target support and resources – 30 of 51 at score 2+
 Least widely implemented indicator	5.2 K–12 quality standards, instructional frameworks, or HQIM criteria specific to secondary math pathway courses – 13 of 51 at score 2+
 2025 context	No comparable 2025 national proxy included in the preliminary six-measure scan

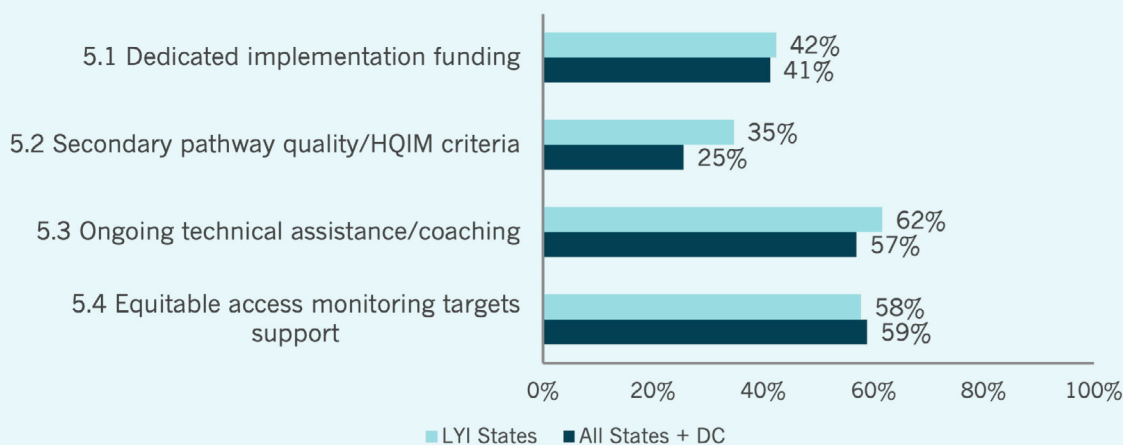


What We Found

As demonstrated in Table 11 and Figure 8, states are more likely to monitor access and participation in math pathways than to provide pathway-specific quality standards and materials guidance. Twenty-nine of 51 jurisdictions meet the threshold for technical assistance and 30 for monitoring access and participation, compared with 21 for dedicated funding and 13 for secondary pathway-specific quality or HQIM criteria. Technical assistance and coaching can support early implementation, but durable statewide implementation also requires recurring funding, staffing, materials guidance, and a process for using data to direct support.

Technical assistance without recurring funding or shared quality expectations leaves implementation dependent on local capacity. Districts and institutions with strong local leadership, larger staff, or access to outside funding may be able to launch and sustain new courses, while rural districts and historically underserved communities may lack the staffing, materials, scheduling flexibility, or time for professional learning needed to do the same. Dedicated resources and clear quality expectations reduce the extent to which students' access depends on local capacity. Monitoring can then identify where participation or success remains limited and help states target additional support.

Figure 8. Indicator-Level Implementation for Key Action 5: Support Effective Implementation (percentage of jurisdictions scoring 2 or 3 on 0–3 scale)



Why This Matters

New policies do not implement themselves. Without supports, implementation depends heavily on local capacity, which may be highly dependent on individual champions and short-term grants. Such dependence can widen differences between well-resourced and historically underserved communities.

States need to know where courses are offered, who has access, who enrolls, who succeeds, and where educators need additional help. Data are most useful when they lead to action, such as directing technical assistance, professional learning materials, or funding toward the places and student groups that need them most. Monitoring creates the feedback loop needed to direct resources where access or success remains limited.

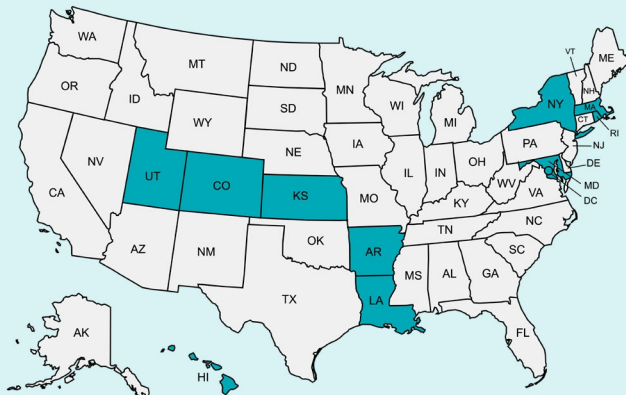


When math pathways work for students

A course can exist on paper and still be inaccessible if a school lacks staffing, materials, training, or funding. Durable support makes a math pathway possible in every community, not only where local capacity is strongest.

LYI State 2026 Priorities

Eleven states reported work on providing support for mathematics pathway implementation.

- **Louisiana** was focusing on the implementation of school structures and student interventions to support success in mathematics.
- 
- **Massachusetts, Maryland, New York, Rhode Island, Utah, and the District of Columbia** were developing or providing math pathway recommendations for districts, publishing guidance documents for selecting high-quality grade 9 mathematics supplemental materials, and publishing implementation frameworks or guidance.
 - **Colorado** was developing math pathway communications and highlighting local district examples of successful implementation.
 - **Arkansas** was working on developing and implementing a throughput measure to help higher education institutions monitor the effectiveness of corequisite, remediation, and gateway course success.
 - **Hawai'i** was supporting a statewide rollout of new math standards.
 - **Kansas** was supporting systemwide implementation of math placement practices.



Recommended Focus for Future Work

Establish recurring funding, secondary pathway-specific quality criteria, coaching, and technical assistance. Use access and success data to target implementation support.

Key Action 5: State Examples



Iowa



Non-LYI State



Key Action 5 score= 1



Exploring

Iowa's "offer-and-teach" requirements establish a minimum set of mathematics courses that high schools must make available and teach with appropriately licensed staff. The state also uses its regional Area Education Agency structure to provide ongoing mathematics coaching and implementation support to districts. Together, these structures demonstrate how statewide course access expectations can be paired with regional support for implementation.¹⁸



Oregon



LYI State



Key Action 5 score= 3



Initial Implementation

Oregon combines multiple-cycle "Mathways" grants with regional STEM Hub technical assistance. Recurring funding and regional delivery infrastructure support local implementation over time.¹⁹



Deeper Review State (p. 68)



Rhode Island



LYI State



Key Action 5 score= 3



Initial Implementation

Rhode Island shows how statewide guidance and cross-sector coordination can support implementation. The Rhode Island Launch Years Working Group developed recommendations for modern math pathways, and the Rhode Island Math Collaborative was established to carry those recommendations forward through continued coordination among K–12, higher education, and workforce partners. Together with the state's math graduation guidance, this ongoing structure supports implementation beyond isolated local efforts.²⁰



KEY ACTION 6

Guide Informed Student Decisions

Districts, schools, and universities provide students and families comprehensive and responsive advising from middle school through high school and into postsecondary to enable informed decisions about courses and pathways.

WHAT THE INDICATORS ASSESS

6.1

Public-facing materials clearly describe available math pathways and how each connects to postsecondary programs and in-demand careers.

6.2

State or education system/institution policy provides advising frameworks or guidance for middle school through postsecondary transitions that support informed math pathway selection.

6.3

Advising tools (e.g., course planners, career pathway maps) are aligned across secondary and higher education systems.

Table 12. Key Action 6: What the Evidence Shows

2026 Finding	Result
 National key action adoption score (0–4)	Installing 1.78 out of 4
 States at initial implementation higher	3 of 51
 LYI states at initial implementation higher	3 of 26
 National mean indicator score	1.53 of 3
 Most widely implemented indicator	6.2 Advising frameworks or guidance for middle school through postsecondary transitions – 31 of 51 at score 2+
 Least widely implemented indicator	6.3 Advising tools aligned across secondary and higher education systems – 18 of 51 at score 2+
 2025 context	No comparable 2025 national proxy included in the preliminary six-measure scan

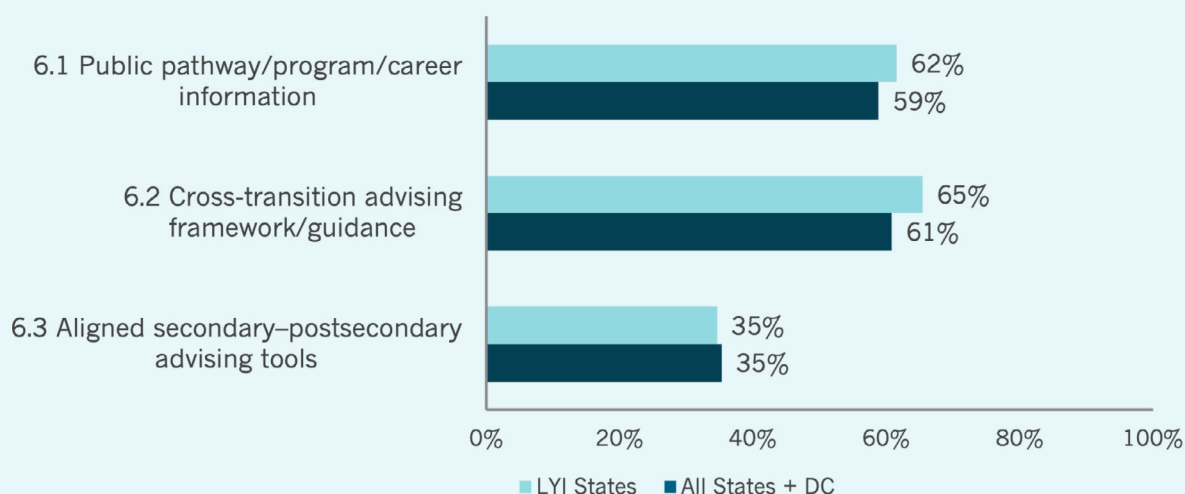
What We Found

Public-facing math pathways information and cross-sector advising frameworks and guidance are more common than advising tools aligned across middle school to postsecondary education (see Table 12 and Figure 9). Thirty jurisdictions meet the threshold for public math pathway information and 31 for advising frameworks or guidance, but only 18 meet it for aligned secondary–postsecondary advising tools, such as planners or pathway maps. The issue is not simply whether a map exists—it is whether the advising tools reflect current graduation, admissions, placement, transfer, and program rules and have named owners responsible for updates.

Effective advising is more than publishing a list of courses. Students, families, counselors, and advisors need tools that explain prerequisites and show how mathematics choices connect to graduation, admission, gateway courses, majors, and careers. Recent research reinforces the importance of making those connections visible. REL Northwest found that grade 9 mathematics placement decisions shape later access to advanced mathematics and identified a need for counselors, teachers, students, and families to have better information for enrollment decisions.²¹ At the postsecondary level, the Community College Research Center’s Program Mapper work similarly emphasizes individualized, goal-aligned educational plans and alignment among advising, scheduling, and enrollment management.

Math-specific admissions research also shows why consistent information matters: 94 percent of admissions officers viewed statistics as valuable preparation for a wide range of degree programs, while 89 percent still associated high school calculus with college success even though fewer than five percent of colleges require calculus.²²

Figure 9. Indicator-Level Implementation for Key Action 6: Guide Informed Student Decisions (percentage of jurisdictions scoring 2 or 3 on 0–3 scale)



Why This Matters

Choice without clear, aligned guidance can reproduce inequity rather than reduce it. Students with access to knowledgeable counselors or family members may be well-positioned to interpret how math courses connect to majors and careers, while others without such access may receive a course list that lacks sufficient information to judge consequences. A useful advising system makes the full route visible for everyone and is updated as rules change.

Advising therefore functions as pathway infrastructure. Cross-sector alignment gives counselors and advisors consistent information instead of requiring them to reconcile separate rules from each sector. Students benefit when educational plans are aligned to their goals and used across advising and enrollment systems, rather than when they are expected to navigate complex institutions without a clear map.²³



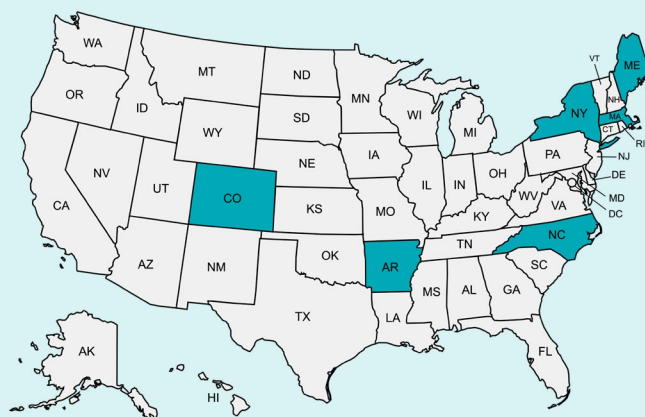
When math pathways work for students

Math pathway guidance must be provided before key decisions are made, like which courses to take or which colleges to apply to. Effective advising protects future options while helping students select math that is relevant to their goals. Students need to know what opportunities each math pathway course opens and how they can change direction without losing progress.

LYI State 2026 Priorities

Six states reported working on guiding informed student decisions.

- **Arkansas, Colorado, Massachusetts, and Maine** were developing and/or promoting communications about math pathways or courses to raise awareness and provide guidance.



- **Arkansas** focused on guidance in high school Quantitative Reasoning; **Massachusetts** focused on Statistics and Probability; and **Colorado** and **Maine** were working more broadly on awareness and visibility.
- **Massachusetts, North Carolina, and New York** were working on improving advising around math pathways. **Massachusetts** was helping counselors advise students and families on a new Statistics and Probability course; **North Carolina** was coordinating with state counseling and advising leaders; and **New York** was establishing shared advising practices and developing math and career pathway maps.



Recommended Focus for Future Work

Create, maintain, and routinely update cross-sector math pathway maps and advising tools for students, families, counselors, and advisors, with named ownership, updated schedules, and version control. Pair the tools with cross-sector learning and communication so secondary counselors and postsecondary advisors can interpret and use math pathway information consistently.²⁴

Key Action 6: State Examples



Arkansas



LYI State



Key Action 6 score= **2**



Installing

Arkansas requires Student Success Plans beginning in grade 8 and provides career-coach capacity and postsecondary transfer guidance. The state uses a formal advising framework to develop cross-sector alignment tools.²⁵



Georgia



LYI State



Key Action 6 score= **3**



Initial Implementation

Georgia's public-facing guidance connects secondary preparation to postsecondary expectations. The University System of Georgia publishes program-based guidance that helps students and advisors identify gateway mathematics aligned with intended fields of study, while cross-system course design has brought K–12 and higher education partners together around shared expectations. The state's public math pathway guidance, continuous-guidance requirements, and program-recognition information provide students and advisors with a more connected route from middle school through postsecondary choice.²⁶



Deeper Review State (p. 64)



KEY ACTION 7

Build Cross-Sector Partnerships

States establish mathematics pathways through formal cross-sector partnerships with clear governance, roles, and shared accountability.

WHAT THE INDICATORS ASSESS

- 7.1** State has a formal cross-sector governance structure (e.g., task force, steering committee) including K–12, community colleges, four-year postsecondary institutions, and other interest holders.
- 7.2** Roles, decision-making authority, and accountability structures for math pathway development and monitoring are clearly defined.
- 7.3** Cross-sector team meets regularly and produces documented outputs (e.g., meeting minutes, action plans, progress reports, policy recommendations, alignment guidance, monitoring reports).

Table 13. Key Action 7: What the Evidence Shows

2026 Finding	Result
 National key action adoption score (0–4)	Installing 1.94 out of 4
 States at initial implementation higher	13 of 51
 LYI states at initial implementation higher	10 of 26
 National mean indicator score	1.69 of 3
 Most widely implemented indicator	7.1 Formal cross-sector governance structure – 34 of 51 at score 2+
 Least widely implemented indicator	7.2 Clearly defined roles, decision-making authority, and accountability structures – 25 of 51 at score 2+
 2025 context	2025 national proxy: 31 of 51 jurisdictions 61% had a formalized partnership or task force

What We Found

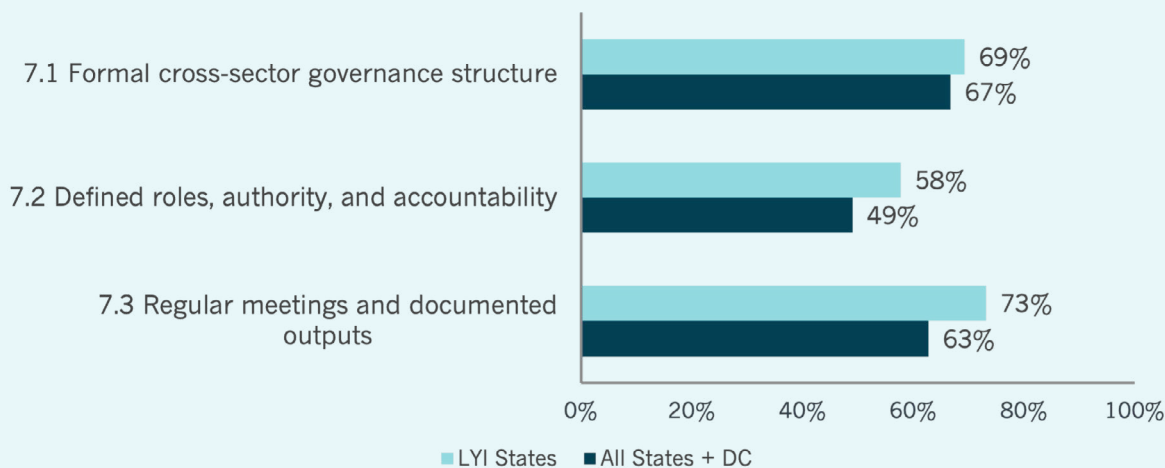
Formal cross-sector structures are visible in 34 of 51 jurisdictions, and 32 show regular meetings with documented outputs (see Table 13 and Figure 10). Only 25 meet the threshold for clearly defined roles, decision authority, and accountability. The evidence suggests that convening is more mature than governance.

Evidence from the LYI demonstrates that effective cross-sector governance is foundational to advancing aligned math pathways. Lessons learned across participating states informed the Dana Center’s *Effective Practices: Leadership Teams and Task Forces*,²⁷ which emphasizes that sustainable governance depends on more than convening representatives from K–12 and higher education.

Successful cross-sector partnerships establish a clear charge, assign leadership and operational responsibilities, and create processes that allow work to continue despite leadership turnover or organizational change. Practices such as succession planning, clearly assigned roles, standing meeting schedules, shared workspaces, and documented operating procedures help preserve institutional knowledge and maintain momentum. Diverse representation—across roles, demographics, and geography—also strengthens decision making by ensuring recommendations reflect the needs and experiences of the students they are intended to serve. Governance maturity is reflected in how well these structures function over time.

The strongest governance structures connect collaboration to action. Regular meetings are supported by agendas, meeting minutes, action plans, and other documented products that clarify decisions, assign responsibilities, and monitor progress over time. Mature cross-sector teams produce tangible outputs, such as course frameworks, pathway recommendations, alignment guidance, implementation plans, and progress reports, that translate collaboration into coordinated policy and practice. Maintaining centralized documentation and clear records strengthens accountability, facilitates onboarding of new members, and helps ensure that pathway work remains coordinated and sustainable as leadership and membership evolve.

Figure 10. Indicator-Level Implementation for Key Action 7: Build Cross-Sector Partnerships (percentage of jurisdictions scoring 2 or 3 on 0–3 scale)



Why This Matters

No single agency controls the entire math pathway. Mathematics pathways span multiple education systems, and responsibility for those pathways is distributed across organizations with different authorities, priorities, and policy levers. K–12 systems determine graduation requirements and course offerings while postsecondary institutions establish admissions, placement, transfer, and degree requirements. Workforce partners help define the quantitative knowledge and skills students need for success beyond school. Meaningful alignment depends on sustained collaboration across all these sectors.

Formal cross-sector structures create a place to resolve differences, but they become durable only when authority, responsibility, recurring outputs, and continuity are explicit.



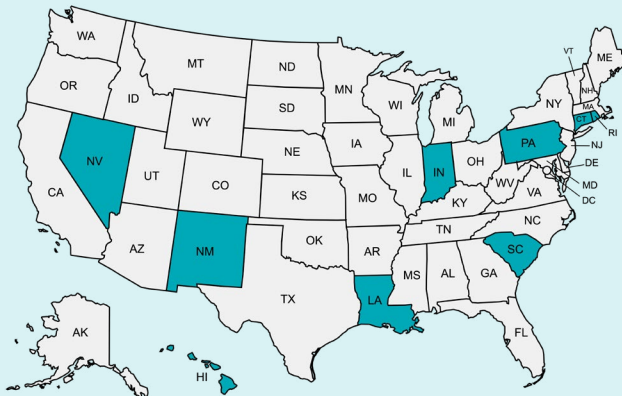
When math pathways work for students

Students experience cross-sector coordination when course choices, admissions messages, transfer rules, and program requirements agree. Governance is successful when transitions are coordinated.

LYI State 2026 Priorities

Nine states reported efforts to build or strengthen cross-sector partnerships through state teams, external partnerships, or strategic planning.

- **Connecticut, Nevada, and Pennsylvania** were expanding their state teams by recruiting new members.
- **New Mexico** was improving communication among elementary, secondary, and postsecondary instructors to bridge math pathways across sectors.
- **Hawai'i, Indiana, and Louisiana** were strengthening partnerships beyond their state teams. **Hawai'i** was building a PK–20 mathematics collaborative; **Indiana** was engaging external partners to inform a data science pathway; and **Louisiana** was expanding partnerships with families and community members.
- **Connecticut and Rhode Island** were strengthening governance by defining their state charges and establishing priorities for the next academic year.
- **South Carolina** initiated a project connecting workforce, postsecondary, and K–12 institutions.





Recommended Focus for Future Work

Move from partnership formation to governance formalization by developing governance charters that establish decision making authority, member roles and responsibilities, recurring outputs, accountability for implementation, and continuity plans. Place time-bound deliverables in action plans that can evolve.

Key Action 7: State Examples



Kansas



LYI State



Key Action 7 score= **3**



Initial Implementation

The Kansas Board of Regents Math Pathways Task Force and related committees provide a formal structure, recurring meetings, and documented policy and implementation outputs. Kansas demonstrates a partnership structure that is tied to products and system decisions.²⁸



Deeper Review State (p. 65)



North Carolina



LYI State



Key Action 7 score= **3**



Initial Implementation

North Carolina illustrates effective cross-sector collaboration through its recurring coordination among its state department of public instruction (NCDPI), the University of North Carolina System, community college partners, myFutureNC (an organization focused on improving the education-to-workforce continuum), and mathematics collaboratives.²⁹



Deeper Review State (p. 67)



Arizona



LYI State



Key Action 7 score= **1**



Exploring

Arizona's cross-sector partnership illustrates how collaboration between K–12 and higher education leaders can support policy implementation and long-term pathway modernization. This work demonstrates promising early-stage collaboration to build shared understanding and to prepare educators and institutions for significant policy and instructional changes. The current Exploring score indicates that decision authority, accountability, and recurring outputs are not yet fully documented.³⁰



KEY ACTION 8

Strengthen Preparation for Pre-Service and In-Service Educators

States invest in educator preparation programs, professional development, and high-quality instructional materials for all mathematics pathways.

WHAT THE INDICATORS ASSESS

8.1

State defines or signals criteria for high-quality instructional materials specific to secondary math pathway courses.

8.2

Comprehensive professional learning opportunities are available for secondary and higher education faculty implementing math pathway courses.

8.3

Educator preparation programs incorporate content aligned to multiple math pathways (where applicable).

Table 14. Key Action 8: What the Evidence Shows

2026 Finding	Result
 National key action adoption score (0–4)	Installing 1.57 out of 4
 States at initial implementation higher	2 of 51
 LYI states at initial implementation higher	1 of 26
 National mean indicator score	1.31 of 3
 Most widely implemented indicator	8.2 Comprehensive professional learning for secondary and higher education faculty implementing math pathway courses – 28 of 51 at score 2+
 Least widely implemented indicator	8.3 Educator preparation programs incorporate content aligned to multiple math pathways – 9 of 51 at score 2+
 2025 context	No comparable 2025 national proxy included in the preliminary six-measure scan

What We Found

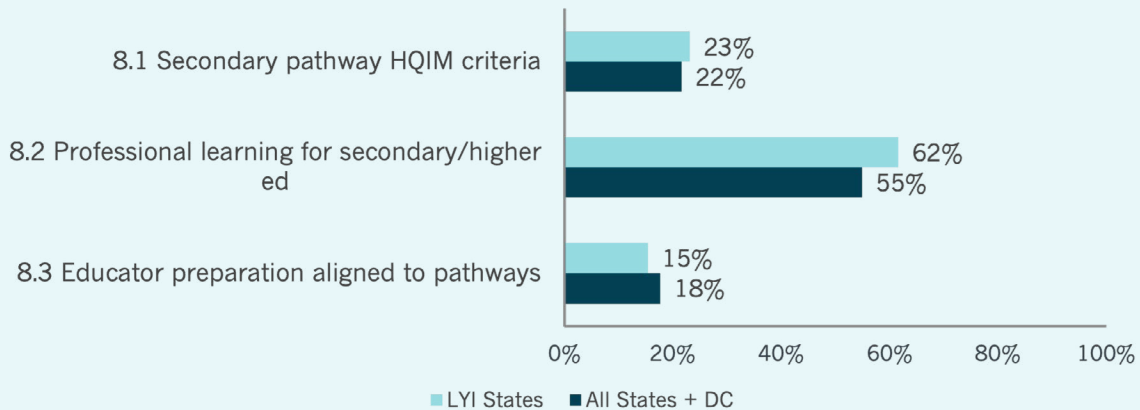
Professional learning is the most developed component of this key action: 28 of 51 jurisdictions meet the threshold (see Table 14 and Figure 11). Secondary math pathway-specific materials criteria are visible in 11 jurisdictions, and educator preparation alignment in nine. These results suggest that states are focusing on preparing current educators to teach new courses, while the broader systems that prepare future educators and define quality instruction at scale evolve more slowly.

Professional learning is an important early response for supporting implementation of multiple math pathways. As new courses, standards, and advising practices are introduced, educators need opportunities to develop the content knowledge, instructional strategies, and shared understanding necessary to implement pathway reforms consistently across K–12 and higher education.

Professional learning provides an immediate mechanism for supporting educators who are already responsible for teaching or advising students within new math pathways.

Over time, however, states also need educator preparation programs, faculty development systems, certification expectations, and HQIM review processes to reflect multiple math pathways. Otherwise, training must repeatedly compensate for systems that continue to prepare educators for an older course structure. Embedding multiple math pathways into pre-service preparation and ongoing educator development helps build a workforce prepared to teach a range of math pathway courses, reducing reliance on repeated professional learning as the primary implementation mechanism.

Figure 11. Indicator-Level Implementation for Key Action 8: Strengthen Preparation for Pre-Service and In-Service Educators (percentage of jurisdictions scoring 2 or 3 on 0–3 scale)



Why This Matters

A new course title does not guarantee a new student experience. K–12 educators need the content knowledge, instructional strategies, HQIM, and opportunities to learn with peers to teach new math pathway courses effectively. Postsecondary faculty need support to redesign gateway and corequisite courses to serve students entering through multiple math pathways.

Educator knowledge, pedagogy, HQIM, and faculty preparation determine whether math pathway courses are rigorous and successful in practice.

Professional development can help current educators quickly, but long-term sustainability requires pre-service preparation and material-review systems to change as well.



When Math Pathways Work for Students

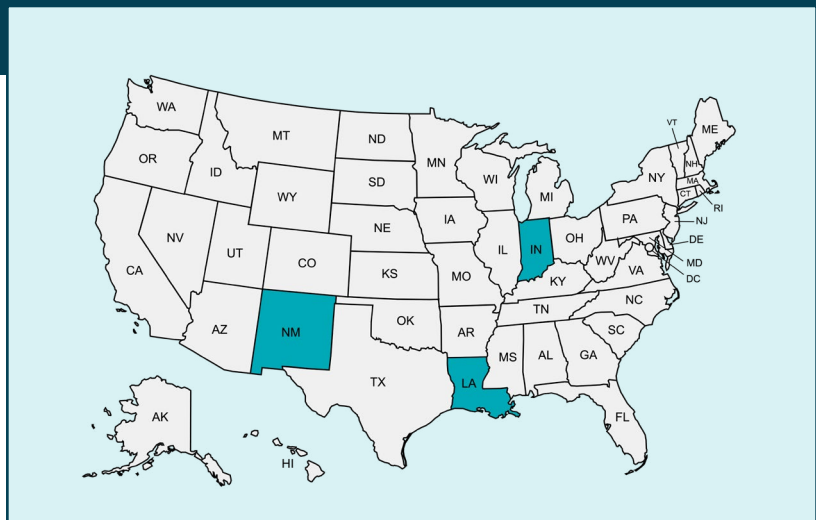
Students experience math pathways through the educators who teach and advise them. When educators have the knowledge, resources, and support they need, students are more likely to experience relevant, high-quality instruction and meaningful math pathway options.

When future teachers and faculty encounter multiple math pathways before entering the classroom, states are less dependent on repeated “catch-up” training after reforms are already underway.

LYI State 2026 Priorities

Three states reported work on teacher professional development or dual-credit teacher requirements.

- **Louisiana and New Mexico** prioritized professional learning to build educators’ capacity to implement math pathway reforms.
- **Indiana** focused on revising dual-credit teacher requirements to better align educator qualifications with pathway goals.





Recommended Focus for Future Work

Align educator preparation, faculty development, professional learning, and secondary instructional material-review processes to multiple math pathways and corequisite instruction.

Key Action 8: State Examples



Utah



LYI State



Key Action 8 score= **1**



Exploring

Utah's full-year high school Data Science Pilot for grades 11 and 12 includes teacher teams, curriculum selection, and professional learning. The pilot brings teacher teams together to plan, select curriculum, complete pedagogy training, and teach a full-year course, ensuring educators are prepared to deliver high-quality instruction as new pathway options are introduced. The pilot design links course expansion directly to educator learning.³¹



Washington



LYI State



Key Action 8 score= **2**



Installing

Washington supports educators implementing Modern Algebra II and Bridge to College Math through structured professional learning and communities of practice. By extending professional learning beyond a one-time workshop, this approach helps educators deepen instructional expertise, collaborate with peers, and continuously refine their practice.³²



KEY ACTION 9

Capture and Report Progress

States establish comprehensive public reporting systems that provide transparent, disaggregated data on mathematics course-taking patterns and sequences, student progression, and outcomes across K–12 and postsecondary education.

WHAT THE INDICATORS ASSESS

- 9.1** State publicly reports middle school and high school math course-taking patterns, disaggregated by student subgroups.
- 9.2** State reports student access, progression and completion within math pathways (e.g., course sequences, gateway completion).
- 9.3** K–12 and postsecondary data systems are linked or coordinated to track math pathway participation and outcomes longitudinally.

Table 15. Key Action 9: What the Evidence Shows

2026 Finding	Result
 National key action adoption score (0–4)	Installing 2.31 out of 4
 States at initial implementation higher	17 of 51
 LYI states at initial implementation or higher	7 of 26
 National mean indicator score	1.93 of 3
 Most widely implemented indicator	9.3 Linked or coordinated K–12 and postsecondary data systems – 45 of 51 at score 2+
 Least widely implemented indicator	9.2 Reporting student access, progression, and completion within math pathways – 32 of 51 at score 2+
 2025 context	2025 national proxy: 10 of 51 jurisdictions 20% publicly reported middle/high school mathematics course taking

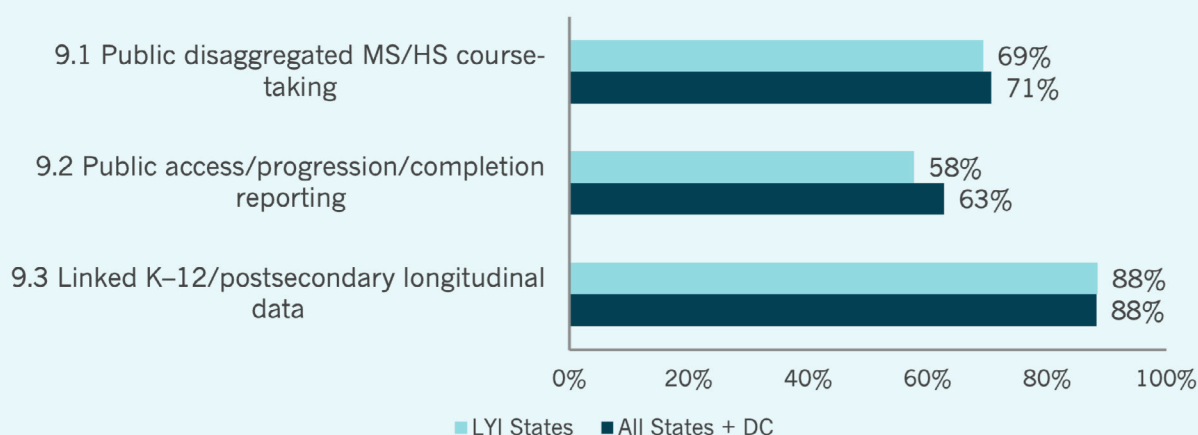


What We Found

As Table 15 and Figure 12 demonstrate, linked or coordinated data systems are far more common than public math pathway reporting. Forty-five of 51 jurisdictions meet the threshold for linked K–12 and postsecondary data, compared with 36 for public disaggregated secondary course taking and 32 for reporting math pathway access, progression, and completion. The gap is not always technical connectivity—it is the work of defining courses and cohorts; deciding which students are included in each measure, which groups will be compared, and how categories from different systems are matched; establishing rules for disaggregating results across student groups; and determining what information will be reported publicly and how often.

A linked system can answer many questions in theory; a public reporting system answers a smaller set of important questions consistently and transparently. Turning connected records into useful public information requires agreement on a set of decisions regarding what is measured; how, when, and how often it is measured; and how changes in elements such as course names and codes will be tracked over time.

Figure 12. Indicator-Level Implementation for Key Action 9: Capture and Report Progress (percentage of jurisdictions scoring 2 or 3 on 0–3 scale)



Why This Matters

States can pursue improvement without public reporting, but they cannot know reliably whether their efforts changed access, progression, or outcomes—or for whom—without consistent data. Public reporting turns implementation activity into evidence that can support course correction, resource targeting, and accountability. Linked systems are a foundation; shared definitions, governance, business rules, and publication routines make the data usable.



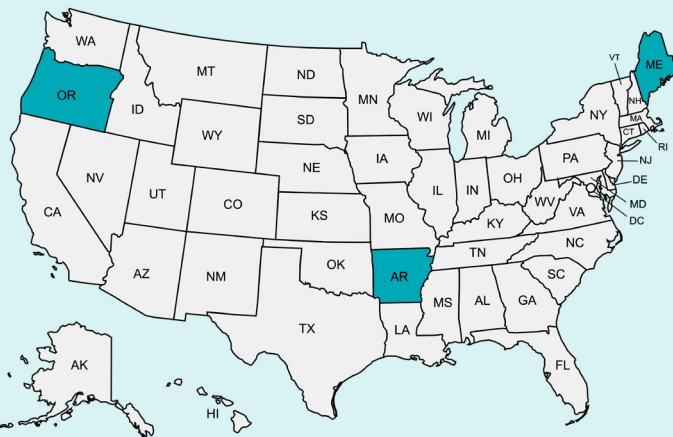
When Math Pathways Work for Students

Students benefit when data reveal who has access, who progresses, where barriers emerge, and whether math pathway reforms are reaching the students they were designed to serve.

LYI State 2026 Priorities

Three states reported working on collecting and analyzing data to monitor math pathways.

- **Arkansas** was focused on developing measures for higher education to assess the effectiveness and success of math pathway supports, including corequisites, remediation, and gateway courses.
- **Maine** was identifying and creating benchmarks for key math pathways data points, such as the number of schools offering math pathway courses and the percentage of remedial placements in postsecondary.
- **Oregon** was working on measuring math pathways across education sectors, starting with a detailed landscape analysis.





Recommended Focus for Future Work

Use linked data to routinely publish disaggregated student course taking, access, progression, completion, and outcomes with clear metadata and documented business rules.

Key Action 9: State Examples



Hawai'i



LYI State



Key Action 9 score= **3**



Initial Implementation

The Hawai'i Data eXchange Partnership links cross-agency records and publishes a Math Achievement data story with secondary mathematics information. This practice demonstrates how longitudinal infrastructure can support a public product.³³



Florida



Non-LYI State



Key Action 9 score= **3**



Initial Implementation

Florida combines public secondary course-enrollment reporting with statewide postsecondary pathway indicators. The state demonstrates how recurring public products can inform broader data infrastructure.³⁴



Indiana



LYI State



Key Action 9 score= **4**

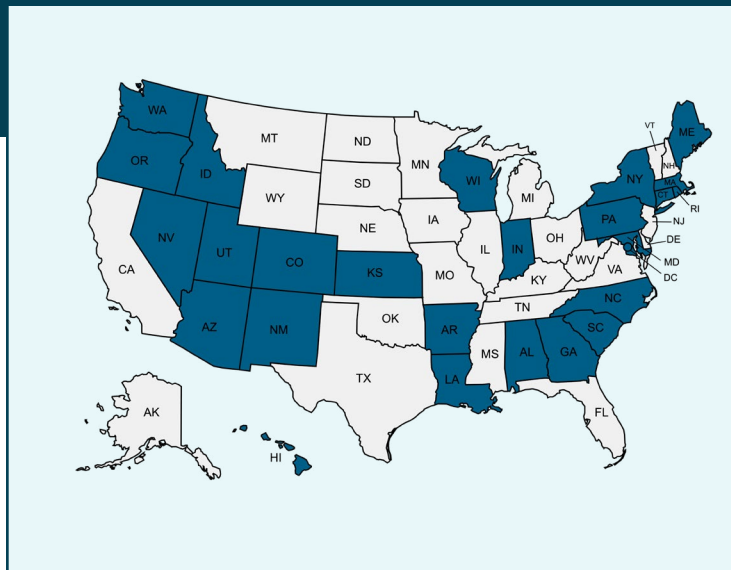


Implemented at Scale

Indiana combines the statutorily established Indiana Graduates Prepared to Succeed (GPS) dashboard with the Indiana Network of Knowledge, a linked K–12, postsecondary, and workforce data system. The public dashboard reports disaggregated, advanced coursework, and graduation pathway completion indicators. Indiana uses its linked longitudinal infrastructure to share recurring public reporting on access and progression rather than remaining only a back-end data connection.³⁵

The Launch Years States

The current LYI group represented in this report includes 26 states and jurisdictions: Alabama, Arizona, Arkansas, Colorado, Connecticut, District of Columbia, Georgia, Hawai'i, Idaho, Indiana, Kansas, Louisiana, Maine, Maryland, Massachusetts, Nevada, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, South Carolina, Utah, Washington, and Wisconsin.



The six deeper review states—Alabama, Georgia, Kansas, Massachusetts, North Carolina, and Oregon—are a subset of this broader LYI group.

The Launch Years Initiative began in 2018 with three states. Over the past eight years, the initiative has served as a partner with states by providing resources, hosting convenings, developing calls to action, and providing technical assistance, while also inviting more states to join the work.

States in the Launch Years Initiative have collectively committed to the following goals.

01

Developing, improving, and/or implementing multiple **modern math pathways in high school** that align with and feed into the higher education math pathways

02

Developing, improving, and/or implementing multiple **modern math pathways in higher education** that align with and follow from the high school math pathways

03

Measuring the state's **success and progress of math pathways** implementation in your state

04

Providing students and their support networks with the **necessary information, choices, and opportunities** to empower them to enroll in high school and postsecondary math courses aligned to their interests, aspirations, and career goals

05

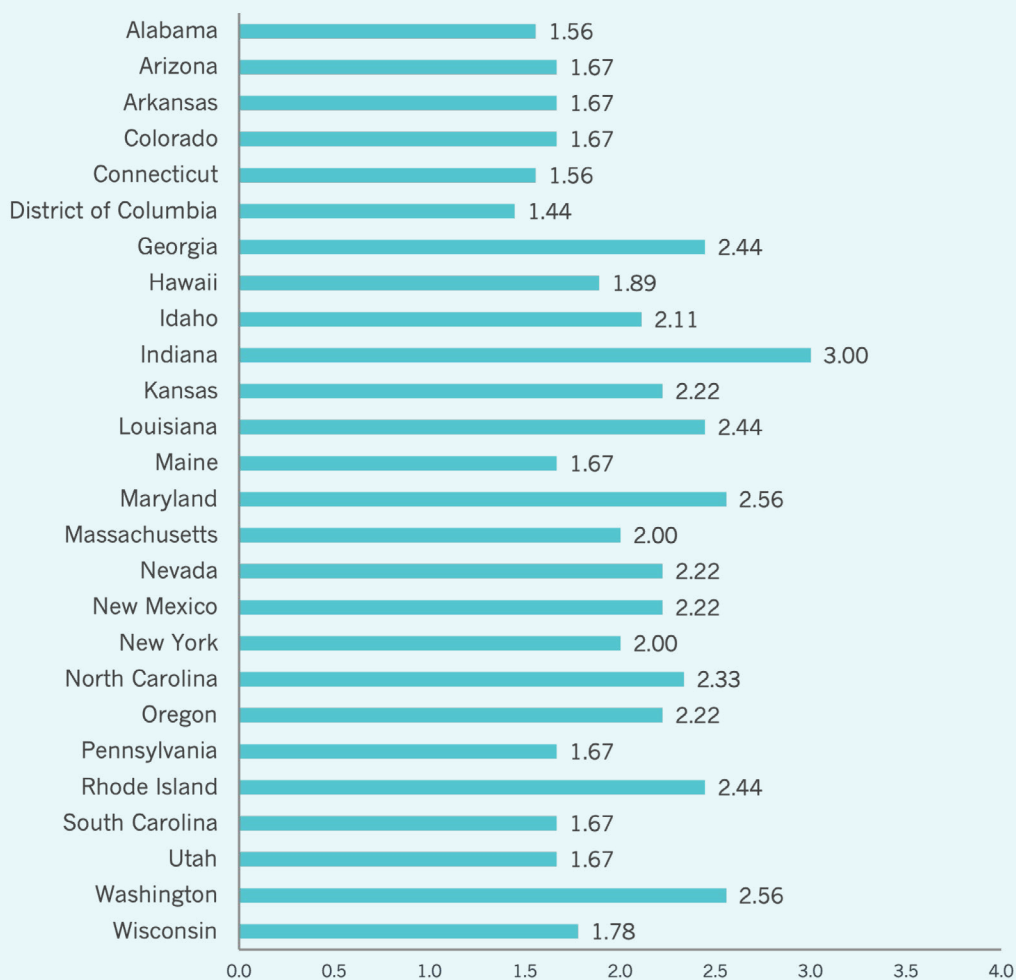
Providing **supports that enable all students to engage** with and succeed in on-grade-level high school mathematics and, if enrolling in postsecondary education, enter immediately into credit-bearing mathematics

LYI State Implementation Profiles

States have different policy environments, governance structures, and levels of public documentation. States joined the LYI at different times, with some just joining the initiative this year. This report uses LYI implementation profiles rather than rankings. These profiles show visible patterns and point to specific next steps; they also show why a single overall score is insufficient. States may be further along in new math pathway development, placement, advising practices, or data infrastructure while still creating the supports needed in other areas. Figure 13 presents each state's overall average key action score between 0 and 4. (See Appendix D for details on scores for each key action by LYI state.)

Detailed state profiles, indicator evidence, and interactive views are available on the companion website: <https://mathpathways.utdanacenter.org>. The associated dashboards allow users to move from viewing a high-level profile to examining the exact indicators and evidence behind them.

Figure 13. LYI State Key Action Implementation Profiles



Note. Overall means summarize the nine key action scores; they are not rankings. The range indicates 0 = Not evident, 1 = Exploring, 2 = Installing, 3 = Initial implementation, and 4 = Implemented at scale.

The Six-State Deeper Review

Alabama, Georgia, Kansas, Massachusetts, North Carolina, and Oregon participated in the LYI Data and Measurement Pilot Study, referred to as the deeper review. The study was designed to test three related questions:

- 01

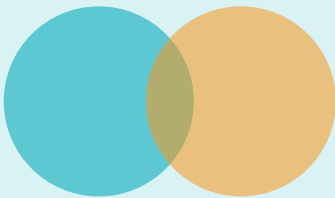
Which of the set of student outcomes can states currently produce?
- 02

Can the data be defined consistently enough for analysis?
- 03

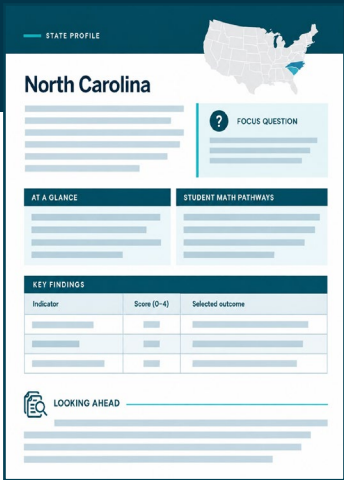
How can those student outcomes can be read alongside the 29 structural indicators without making causal claims?

A Broader View

The **structural indicators** describe policies, practices, supports, partnerships, and data systems intended to shape students’ experiences. The eight **student outcome areas** (see Table 16) describe selected points along a student’s journey. Reading the outcomes together can identify promising patterns and future research questions, but it cannot establish that a structural condition caused an outcome.



STRUCTURAL INDICATORS
+ STUDENT OUTCOMES =
DEEPEER INSIGHTS



How to Read the Deeper Review State Profiles

The profiles of the six states are descriptive, not causal. A stronger structural profile does not prove that a particular policy produced an outcome, and differences in state data definitions prevent simple comparisons. Instead, the analysis asks a more careful question:

When structural scores and available student outcomes are read side by side, what patterns, possible promise, and measurement needs become visible?

A Note on Interpretation

This report uses phrases such as “may suggest,” “shows possible promise,” and “raises a question” when structural and outcome patterns appear together. These phrases identify a pattern worth examining; they do not assert that one produced the other.

Table 16. Student Outcome Measures Analyzed in the Deeper Review

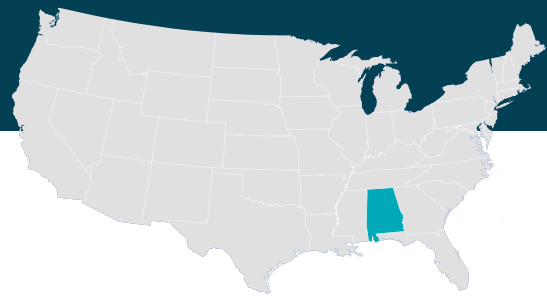
#	Student Outcome Area	Measurement Intent
1	Algebra I completion by the end of 9th grade	% of 9th graders who complete Algebra I or higher by the end of grade 9 to enable student readiness for multiple math pathways in grades 11 and 12
2	Enrollment and success in 11th and 12th grades and postsecondary gateway math pathway courses ³⁶	% of students who enroll in and complete pathway-aligned math courses (e.g., calculus, statistics, quantitative reasoning, data science) in grades 11 and 12 and in first two years of postsecondary education
3	Postsecondary enrollment right after high school	% of high school graduates who enroll in postsecondary institutions by October 31 after high school graduation
4	Successful career transition after high school	% of high school graduates who enter the military, an apprenticeship, non-credit CTE, or employment earning $\geq$ \$35K/year after high school
5	Year 1 gateway mathematics course completion	% of postsecondary students who complete a gateway mathematics course within their first year of enrollment
6	Year 1 to Year 2 postsecondary persistence	% of postsecondary students who return to college (at any institution) for their second year
7	Degree or credential completion	% of postsecondary students who complete a postsecondary certificate, associate degree, or bachelor's degree within 150% of program length
8	Minimum economic return	% of postsecondary students who earn at least as much as the median high school graduate in their state, plus enough to recoup their total net price plus interest within 10 years of completing their highest degree or leaving education

Table 17 shows the implementation stage for each key action of each deeper review state on a scale of 0 to 4. Reading across a row compares how the six states are progressing on the same system condition; reading down a column shows the implementation profile within one state. The values describe implementation maturity, not program quality or student impact.

Table 17. Key Action Scores for Deeper Review States

#	Key Action	Alabama	Georgia	Kansas	Massachusetts	North Carolina	Oregon
1	Expand Opportunities Through Multiple Mathematics Pathways	1	4	3	2	3	2
2	Modernize Mathematics for Career Readiness and Civic Engagement	1	2	2	2	3	2
3	Align and Accept Pathways	2	3	2	2	2	3
4	Remove Placement Barriers	2	3	2	2	2	2
5	Support Effective Implementation	1	2	2	2	2	3
6	Guide Informed Student Decisions	2	3	2	2	2	2
7	Build Cross-Sector Partnerships	1	2	3	2	3	2
8	Strengthen Preparation for Pre-Service and In-Service Educators	2	1	2	2	2	2
9	Capture and Report Progress	2	2	2	2	2	2
	Overall Mean Across	1.56	2.44	2.22	2.00	2.33	2.22

Note: The score indicates the following: 0 = Not evident; 1 = Exploring; 2 = Installing; 3 = Initial implementation; and 4 = Implemented at scale. Key action scores should be read as profiles rather than rankings. Evidence coverage and state governance contexts differ.



Alabama

Alabama's most developed evidence is in postsecondary placement and corequisite support within the Alabama Community College System (ACCS). ACCS implemented a systemwide, tiered placement approach in 2018 that places students needing support into college-level mathematics with concurrent support rather than a stand-alone remedial sequence.³⁷ This practice operates within the two-year sector. Comparable statewide evidence across four-year institutions and several other key actions is at an earlier stage or was not located.



FUTURE STUDY QUESTION

How do students' high school mathematics course histories relate to ACCS placement, corequisite participation, gateway math course completion, and persistence?

KEY ACTION SCORE

Scale of Adoption: **0** = not evident, **1** = exploring, **2** = installing, **3** = initial implementation, and **4** = implemented at scale

KA1 **1** | KA2 **1** | KA3 **2** | KA4 **2** | KA5 **1** | KA6 **2** | KA7 **1** | KA8 **2** | KA9 **2**

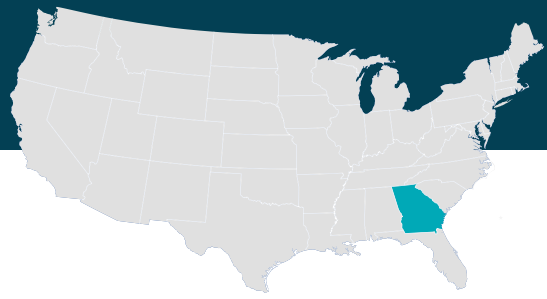
Table 18. Alabama's Available Student Outcomes

Student Outcome Area	Result and Scope
Postsecondary enrollment right after high school	57.0% for the Class of 2024



Connecting the Evidence

Read together, Alabama shows an example of postsecondary reform activity that is more visible than the state's student outcome reporting infrastructure. The 57% postsecondary entry measure shown in Table 18 provides one concrete transition result, but the current evidence cannot show whether students entering postsecondary education experienced the math pathway structures scored in the review. This finding may suggest promise in the state's placement and corequisite direction while also showing why stronger course-level and longitudinal reporting is needed before the pathway can be followed from high school through college.



Georgia

Georgia's profile reflects a connected set of secondary and postsecondary policies. State Board rules require four mathematics units; public guidance identifies approved fourth-credit options and whether they are recognized by the University System of Georgia (USG) and the Technical College System of Georgia; USG uses multiple measures and corequisite learning support; and public-facing tools connect math pathway choices to programs.



FUTURE STUDY QUESTION

Do students who complete aligned secondary pathways enter and complete the corresponding gateway math course at different rates, after accounting for prior preparation and program of study?

KEY ACTION SCORE

Scale of Adoption: **0** = not evident, **1** = exploring, **2** = installing, **3** = initial implementation, and **4** = implemented at scale

KA1 **4** | KA2 **2** | KA3 **3** | KA4 **3** | KA5 **1** | KA6 **3** | KA7 **2** | KA8 **1** | KA9 **2**

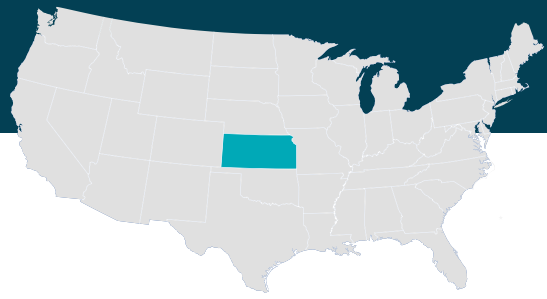
Table 19. Georgia's Available Student Outcomes

Student Outcome Area	Result and Scope
Postsecondary enrollment right after high school	59.9% for the 2024 cohort
Year 1 gateway mathematics course completion	79.4% for a 2024 learning-support math proxy (This is not a complete measure of all first-year gateway math pathways.)
Year 1 to Year 2 postsecondary persistence	58.7% for the 2023 combined two-year and four-year institution postsecondary cohort
Degree or credential completion within 150% of program length	45.5% for the 2019 cohort using an any-credential, five-year proxy



Connecting the Evidence

Georgia represents the clearest example in the deeper review states of having a relatively mature math pathway structure appear alongside a broad set of measurable postsecondary outcomes (see Table 19). The combination may suggest that statewide pathway architecture, admissions alignment, placement reform, and advising create a foundation from which student progress can be examined. The current data do not demonstrate that these structures caused the reported entry, gateway, persistence, or completion results. They do show possible promise for a future longitudinal analysis if secondary course taking, gateway math course definitions, and disaggregation can be connected to the same students.



Kansas

Kansas reaches initial implementation on expanding math pathways (KA1) and cross-sector partnership (KA7). The remaining key actions are largely at the “installing” stage, producing a profile with clear governance and postsecondary infrastructure but fewer measurable secondary math pathway structures. Kansas combines a formal postsecondary governance structure, cross-sector participation, multiple gateway options, and centralized higher education reporting.

? FUTURE STUDY QUESTION

How do secondary math course histories relate to gateway math course placement, persistence, and credential completion across Kansas universities, community colleges, and technical colleges?

KEY ACTION SCORE

Scale of Adoption: **0** = not evident, **1** = exploring, **2** = installing, **3** = initial implementation, and **4** = implemented at scale

KA1 **3** | KA2 **2** | KA3 **2** | KA4 **2** | KA5 **2** | KA6 **2** | KA7 **3** | KA8 **2** | KA9 **2**

Table 20. Kansas' Available Student Outcomes

Student Outcome Area	Result and Scope
Postsecondary enrollment right after high school	54.9% using the state's broader postsecondary-success proxy, not the strict October 31 entry definition
Year 1 gateway mathematics course completion	Approximately 36% to 41% using a developmental-plus-gateway sequence proxy; not limited to first year
Year 1 to Year 2 postsecondary persistence	75.3% systemwide in 2024; 82.9% at state universities, 64.3% at community colleges, and 73.2% at technical colleges
Degree or credential completion within 150% of program length	50.6% systemwide for the Fall 2018 cohort



Connecting the Evidence

Kansas shows how strong governance structure and centralized higher education reporting can make several postsecondary outcomes visible even when secondary math pathway participation remains difficult to measure (see Table 20). The state's Key Action 1 and Key Action 7 scores, read alongside persistence and completion data, may suggest that cross-sector structures and multiple gateway math course options provide a useful platform for continued improvement. The evidence does not yet connect individual students' secondary math courses to their later persistence or completion, so the relationship remains an important question rather than a conclusion.



Massachusetts

Massachusetts provides the most detailed secondary course-level participation evidence in the deeper review (see Table 21). Its profile, with an even distribution of scores in the “installing” stage, shows that useful course reporting can begin before every structural condition is institutionalized.

? FUTURE STUDY QUESTION

When and where do students gain access to pathway courses in grades 11 and 12, and how does participation vary by district and student subgroup?

KEY ACTION SCORE

Scale of Adoption: **0** = not evident, **1** = exploring, **2** = installing, **3** = initial implementation, and **4** = implemented at scale

KA1 **2** | KA2 **2** | KA3 **2** | KA4 **2** | KA5 **2** | KA6 **2** | KA7 **2** | KA8 **2** | KA9 **2**

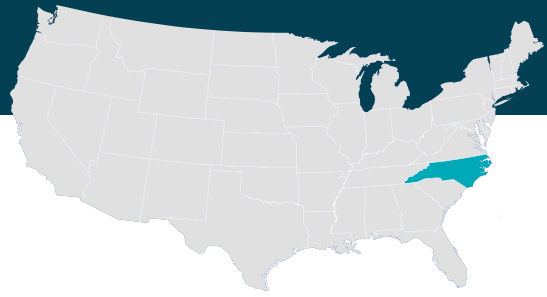
Table 21. Massachusetts’ Available Student Outcomes

Student Outcome Area	Result and Scope
Algebra I or Integrated Math I completion by end of grade 9	50.8% in school year 2024–25
Enrollment in 11th and 12th grade math pathway courses overall	17.4% across selected pathway-aligned courses; course counts may include duplications as students can take more than one course
Enrollment in 11th and 12th grade math pathway courses by grade level	3.9% among grade 11 students and 31.2% among grade 12 students across selected courses; students may appear in more than one course
Most common reported 11th and 12th grade math pathway courses	Probability and Statistics represented 9.0% of grades 11 and 12 enrollment; AP Statistics represented 6.1%



Connecting the Evidence

Massachusetts offers the pilot’s most detailed course-level look at secondary math pathway participation. Read with a structural profile that is “installing” across all key actions, the data may suggest that course-level reporting can begin before the full statewide pathway system is institutionalized. The large difference between grade 11 and grade 12 participation also raises questions about when students gain access to math pathway options and how course choice is shaped by local requirements. Because counts may be duplicated (the same student can take more than one course) and the course list is selective, these findings should be treated as a useful baseline rather than a complete participation rate.



North Carolina

North Carolina pairs a specific statewide access policy with cross-sector math pathway coordination. Under G.S. 115C-81.36, students who score at the highest level on state math assessments are automatically placed into the next advanced math course unless a parent opts out; qualifying 7th graders are placed into a high-school-level math course in 8th grade; and the North Carolina Department of Public Instruction (NCDPI) reports implementation annually. Math pathways work brings together NCDPI, University of North Carolina (UNC) System, and North Carolina Community College System, whose joint task force developed recommendations to strengthen secondary-to-postsecondary math alignment.

? FUTURE STUDY QUESTION

Does automatic enrollment into advanced secondary math change subsequent high school course taking, gateway math course placement, and gateway math completion?

KEY ACTION SCORE

Scale of Adoption: **0** = not evident, **1** = exploring, **2** = installing, **3** = initial implementation, and **4** = implemented at scale

KA1 3 | KA2 3 | KA3 2 | KA4 2 | KA5 2 | KA6 2 | KA7 3 | KA8 2 | KA9 2

Table 22. North Carolina's Available Student Outcomes

Student Outcome Area	Result and Scope
Postsecondary enrollment right after high school	59.7% for the 2024 high school graduate cohort, with definition caveats
Year 1 to Year 2 postsecondary persistence	90.6% for the Fall 2024 UNC System cohort
Degree or credential completion within 150% of program length	75.2% within six years for the Fall 2018 UNC System cohort



Connecting the Evidence

North Carolina combines several initial implementation structural conditions with strong outcomes reported for students who enter the UNC System (see Table 22). This finding may suggest possible promise for a coordinated math pathway environment that includes automatic enrollment, systemwide math pathway work, and cross-sector governance. However, the postsecondary outcomes cover a defined university-system population and are not yet linked to students' high school math pathway participation. The next analytical step therefore is not to claim an effect, but to connect the state's strong placement and math pathway structures to student-level course histories and transitions.



Oregon

Oregon reaches initial implementation in aligning and accepting math pathways (KA3) and in effective implementation support (KA5). It has the broadest span of currently visible secondary participation, postsecondary entry, persistence, and earnings context (see Table 23). Its structural profile highlights admissions alignment and implementation support, allowing for examination of more points along a student's journey.

? FUTURE STUDY QUESTION

How do students in calculus, data science, quantitative reasoning, and other secondary pathways transition into aligned postsecondary programs and complete gateway mathematics?

KEY ACTION SCORE

Scale of Adoption: **0** = not evident, **1** = exploring, **2** = installing, **3** = initial implementation, and **4** = implemented at scale

KA1 **2** | KA2 **2** | KA3 **3** | KA4 **2** | KA5 **3** | KA6 **2** | KA7 **2** | KA8 **2** | KA9 **2**

Table 23. Oregon's Available Student Outcomes

Student Outcome Area	Result and Scope
Algebra I or Integrated Math I completion by end of 9th grade	56.8% in 2024–25
Enrollment in 11th and 12th grade math pathway courses	48.1% in 2024–25
Postsecondary enrollment right after high school	54.5% for the 2022–23 graduate cohort
Year 1 to Year 2 postsecondary persistence	79.0% in community colleges and 82.0% in public universities for the 2022–23 high school graduate cohort
Minimum economic return	\$57,000 median earnings 10 years after completion for the 2014 community college award cohort



Connecting the Evidence

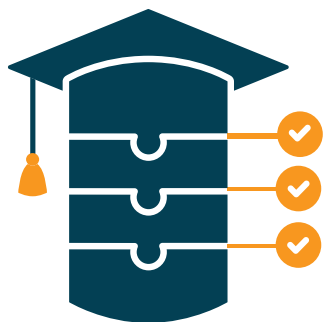
Oregon represents the most complete deeper review spanning secondary participation, postsecondary entry, persistence, and earnings context. These outcomes, together with the other evidence, may suggest possible promise for a system that has invested in coherent admissions language, technical assistance, and data capacity. The evidence still cannot attribute the outcomes to those structures, and gateway math course completion remains incomplete. Nonetheless, Oregon demonstrates the analytical value of being able to observe both the math pathway structures and multiple points in the student journey.

Summary of Deeper Review Findings

The deeper review profiles show that the capacity to report student outcomes does not grow or diminish in concert with structural implementation. Georgia and North Carolina have several key actions at initial implementation yet also report multiple postsecondary student outcomes. Oregon combines two key actions at initial implementation and reports the broadest span of secondary and postsecondary student outcomes. Kansas has established governance and usable postsecondary reporting, while Massachusetts has a more consistent “installing” stage profile and unusually detailed secondary course data. Alabama illustrates how a state can show meaningful reform activity while still having only one validated student outcome measure available for this analysis.

These patterns do not establish that higher structural scores produce stronger student outcomes. They do show where the evidence base is mature enough to ask the next generation of questions. In particular, the profiles point toward analyses that connect students’ secondary math course histories to gateway math course placement, gateway course completion, persistence, credential completion, and economic outcomes. Building that connection would allow future reports on the state of math pathways to move from side-by-side descriptions toward more rigorous tests of how math pathway structures may shape students’ opportunities and progress.

Student Outcomes: Visibility and Needs



The analysis of the deeper review state student outcomes covers eight measures: early math momentum, secondary and postsecondary math pathway participation, postsecondary entry, gateway math course completion, persistence, credential completion, career transition, and economic return. The findings are intentionally reported within states because course lists, sectors, cohorts, observation windows, and definitions of student groupings to be measured are not yet coordinated or aligned for simple state-to-state comparisons.

What the Available Outcomes Show

Secondary math outcome data are available in the greatest detail for Oregon and Massachusetts. Oregon reports that 56.8% of students completed Algebra I, Integrated Math I, or a higher math course by the end of grade 9 in 2024–25, and 48.1% of students in grades 11 and 12 enrolled in a math pathway-aligned course. Massachusetts reports a 50.8% Algebra I or Integrated Math I completion rate by the end of grade 9 and participation in selected math pathway courses for grades 11 and 12. Its selected math pathway courses represented 17.4% of grades 11 and 12 enrollment, with Probability and Statistics and AP Statistics accounting for the largest shares. Because students may be counted in multiple courses, Massachusetts’ values are not a unique-student participation rate.

Postsecondary entry data are available for all six states in some form, but the measures are not identical. Not all of the six states have access to data on postsecondary entry right after high school. Available values include 57.0% in Alabama, 59.9% in Georgia, 54.9% in Kansas, 59.7% in North Carolina, and 54.5% in Oregon. These results show that states can provide useful transition information, but they also demonstrate why sector coverage and treatment of delayed college enrollment need to be standardized before the values are comparable among states.

What the Available Outcomes Show Cont.

Postsecondary persistence and credential completion data are more commonly available. Kansas reports a 75.3% systemwide persistence rate in 2024 and a 50.6% systemwide credential completion rate within 150% of program length for the Fall 2018 cohort. North Carolina reports a 90.6% persistence rate for the Fall 2024 UNC System cohort and a 75.2% six-year credential completion rate for the Fall 2018 cohort. Oregon reports persistence of 79.0% in community colleges and 82.0% in public universities for the available cohorts (see the State of Math Pathways Dashboard for details). Georgia reports a 58.7% persistence proxy and a 45.5% credential completion proxy for combined postsecondary cohorts. These values describe different systems and populations and should not be ranked.

Gateway math course completion remains one of the most difficult measures to compare. Georgia reports a learning-support math completion proxy for gateway math courses of 79.4% for its 2024 cohort, while Kansas reports approximately 36% to 41% for a developmental-plus-gateway sequence that is not limited to the first year. The results reflect differences in course definitions and in the sets of students included in the measures as much as they reflect student performance—this is precisely why states need shared gateway math course lists and consistent business rules.

Career transition and minimum economic return remain the least complete measures. Several states provide employment or wage information, but no deeper review state currently reports the full career-transition composite across military service, registered apprenticeship, non-credit career and technical education (CTE), and employment at or above the wage threshold. Wage context is available in states such as Oregon, Kansas, Georgia, and North Carolina, but the full minimum economic return measure also requires the state median high school graduate wage, net price, interest, and a 10-year recovery calculation.

Connecting Student Outcome Findings to the Structural Indicators



The structural indicator review helps explain why some student outcomes are easier to see than others. Key Action 9 asks whether states publicly report disaggregated course taking and math pathway progression and whether K–12 and postsecondary systems are linked. Across the deeper review states, linked or coordinated systems are more common than routine pathway-specific public reporting. As a result, states may have the technical ability to connect records while still lacking the course definitions, reporting products, or governance agreements needed to produce the desired measures.

The combined findings also show that implementation supports matter for measurement. States with active cross-sector governance structures, clear math pathway definitions, or centralized reporting structures were often able to provide a broader set of student outcome evidence. This relationship may suggest that governance and implementation infrastructure create conditions that support both reform and learning about reform. It does not establish that those structures caused stronger student results. However, it does indicate that states are better positioned to examine results when the people, definitions, and systems needed to produce them are already in place.

Challenges in Comparing States and Suggested Next Steps

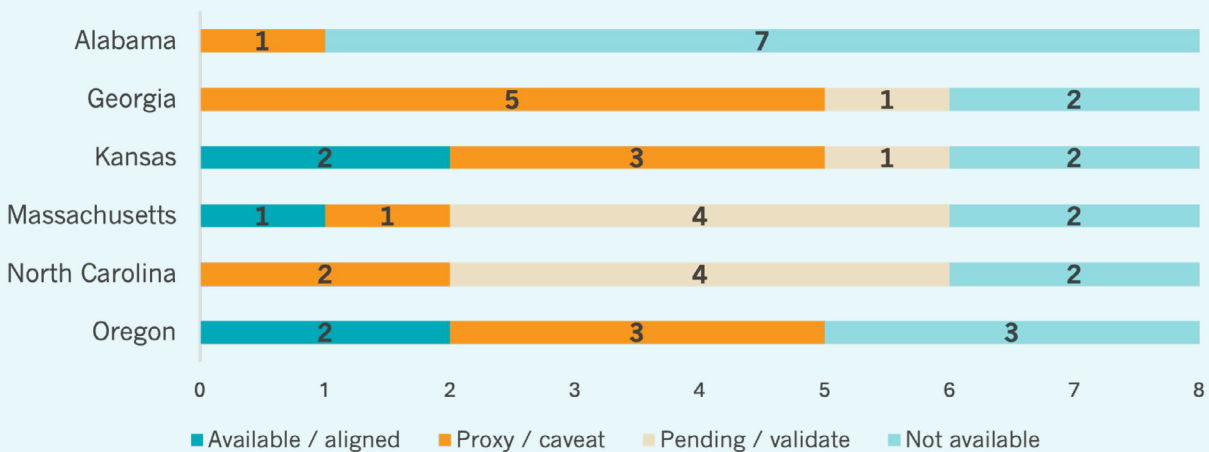
The student outcome findings are reported primarily within states. Comparisons can be difficult within a state when districts, systems, or institutions use different course lists, cohorts, or observation windows. Comparisons between states add another layer of variation in sector coverage and business rules. The report therefore uses the eight official outcome areas listed in Table 24 as a common organizing framework while preserving state-specific definitions and caveats.

A shared course taxonomy should first be established in each state across and within K–12 and postsecondary systems. Over time, a limited common taxonomy can support national aggregation without erasing meaningful state differences.

Governance for student outcome measurement would require a formal cross-agency collaboration with named members, decision rights, data steward responsibilities, privacy rules, definition approval, refresh schedules, and a process for resolving changes. Career transition and economic return outcomes require this structure across education, labor, workforce, apprenticeship, and other relevant agencies.

Figure 14 captures the current understanding of outcome data availability within the deeper review states in the limited timeframe available for state consultation. The bulleted legend below the figure defines each label.

Figure 14. Number of Student Outcomes Under Each Data Availability Category by Deeper Review State



Definitions of Availability

- Available/aligned:** data collected and aligned to the current student outcome definition
- Proxy/caveat:** data collected and used as a proxy to the outcome definition
- Pending/validate:** data either collected and not evaluated due to time; or the state is preparing to formally report these data and therefore was not yet ready for our review/collection
- Not available:** data not collected, and status of availability remains unknown

Implications for Policymaker and Practitioner Action

The following priorities synthesize evidence from the national structural review, the 26 LYI state profiles, the six-state deeper review, and the student outcome measurement findings. They address a recurring system gap that can prevent otherwise promising reforms from operating coherently or at scale.

These priorities inform the next implementation agenda for LYI and potentially all states and describe what is required to achieve that priority action.



Pair pathway expansion with durable implementation support.

Provide recurring funding, secondary pathway-specific quality criteria, technical assistance, staffing, and monitoring of student access and success.



Align the full student decision chain.

Use consistent language and rules across high school graduation, admissions, gateway math course placement, transfer, advising, and program requirements.



Convert linked data into routine public math pathway reporting.

Establish shared definitions, rules for matching categories and courses across systems, data disaggregation rules, longitudinal measures, metadata, and publication routines.



Use within-state subgroup evidence to target improvement and resources.

Examine differences in student access, progression, and outcomes within states rather than ranking states by overall averages.



Address access and placement as a K–12 priority.

Use objective multiple measures and automatic enrollment where appropriate, while sustaining postsecondary placement and corequisite reforms.



Build cross-agency capacity to measure career transitions and economic return.

Define components, thresholds, identifiers, and governance across education, workforce, apprenticeship, labor, and other agencies.



Redesign educator preparation and professional learning systems.

Align pre-service preparation, in-service learning, faculty development, and HQIM review systems to multiple math pathways.

Conclusion

The *State of Math Pathways 2026* shows a field in transition. States have created substantial components of multiple math pathways; the next step is to connect and institutionalize those components. The most important unfinished work includes:

- 
- Objective K–12 access and placement policy
 - Clear and current admissions, transfer, and program-applicability signals
 - Recurring funding and secondary math pathway-specific, HQIM criteria
 - Educator preparation, professional learning, and materials adoption systems aligned to multiple math pathways
 - Routine public reporting of students' math pathway access, progression, completion, and outcomes
 - Cross-agency measurement of career transitions and economic return.

The directional comparison with *Charting the Course* shows progress in several areas, while the richer 2026 framework makes clear that adoption of isolated components is not the same as a coherent system. The six-state deeper review adds a practical data agenda: States need shared definitions within and across systems, longitudinal links, and cross-sector governance before structural progress can be connected rigorously to student outcomes.

For students, the success of this work will not be measured by the number of policies or course titles alone—it will be measured by whether students can choose a high-quality, upper-level high school math course with clear information, transition into an aligned postsecondary gateway math course, receive support when needed, and continue toward a credential and career without discovering that an earlier decision closed an option they did not know they needed to protect.

States have already demonstrated that multiple math pathways can move from concept to policy and practice. The next phase is to make that progress coherent, durable, and visible. LYI provides a national structure for this work: Participating states can use the 29 indicators as a shared implementation agenda, test the eight student outcome measures, and learn across different governance contexts.

The call to action is clear: Preserve the momentum documented since *Charting the Course*, close the gaps that leave students to navigate inconsistent systems on their own, and build the evidence needed to show where math pathways are improving student access, progression, completion, and economic mobility.

Appendix A. State Structural Profiles

Scores for Each of Nine Key Actions for 50 States and the District of Columbia

State	LYI	Deeper Review	1	2	3	4	5	6	7	8	9	Mean
Alabama	Yes	Yes	1	1	2	2	1	2	1	2	2	1.56
Alaska	No	No	1	2	2	1	1	1	1	1	2	1.33
Arizona	Yes	No	2	2	2	2	1	2	1	1	2	1.67
Arkansas	Yes	No	2	2	2	2	1	2	1	1	2	1.67
California	No	No	2	2	2	2	1	1	1	1	2	1.56
Colorado	Yes	No	2	2	2	2	1	1	2	1	2	1.67
Connecticut	Yes	No	2	1	2	2	1	1	2	1	2	1.56
Delaware	No	No	2	1	1	2	1	1	2	1	1	1.33
District of Columbia	Yes	No	1	1	1	1	2	2	1	2	2	1.44
Florida	No	No	2	2	3	2	2	2	3	1	3	2.22
Georgia	Yes	Yes	4	2	3	3	2	3	2	1	2	2.44
Hawai'i	Yes	No	2	2	2	2	1	1	3	1	3	1.89
Idaho	Yes	No	3	2	2	2	2	2	2	2	2	2.11
Illinois	No	No	3	2	3	3	1	2	2	2	3	2.33
Indiana	Yes	No	4	2	3	3	3	2	3	3	4	3.00
Iowa	No	No	1	2	2	2	1	1	2	1	2	1.56

State	LYI	Deeper Review	1	2	3	4	5	6	7	8	9	Mean
Kansas	Yes	Yes	3	2	2	2	2	2	3	2	2	2.22
Kentucky	No	No	2	2	2	2	1	1	2	1	2	1.67
Louisiana	Yes	No	4	2	3	2	1	2	3	2	3	2.44
Maine	Yes	No	2	2	2	1	1	2	2	2	1	1.67
Maryland	Yes	No	3	3	2	2	3	2	3	2	3	2.56
Massachusetts	Yes	Yes	2	2	2	2	2	2	2	2	2	2.00
Michigan	No	No	3	2	3	2	2	2	2	2	2	2.22
Minnesota	No	No	2	2	1	2	1	1	2	1	3	1.67
Mississippi	No	No	2	2	2	2	1	1	0	1	2	1.44
Missouri	No	No	2	1	3	2	1	1	3	0	2	1.67
Montana	No	No	2	2	2	2	1	2	2	2	2	1.89
Wyoming	No	No	1	2	2	1	1	2	1	1	3	1.56
Nebraska	No	No	1	2	2	1	2	1	1	1	3	1.56
Nevada	Yes	No	2	2	2	2	2	2	3	2	3	2.22
New Hampshire	No	No	2	2	2	0	2	1	2	1	2	1.56
New Jersey	No	No	1	3	1	2	2	2	2	2	3	2.00
New Mexico	Yes	No	2	3	2	2	2	2	3	2	2	2.22

State	LYI	Deeper Review	1	2	3	4	5	6	7	8	9	Mean
New York	Yes	No	2	2	2	2	2	2	2	2	2	2.00
North Carolina	Yes	Yes	3	3	2	2	2	2	3	2	2	2.33
North Dakota	No	No	1	2	2	2	2	2	1	2	2	1.78
Ohio	No	No	4	3	4	2	2	2	3	2	3	2.78
Oklahoma	No	No	3	2	3	3	2	2	2	2	2	2.33
Oregon	Yes	Yes	2	2	3	2	3	2	2	2	2	2.22
Pennsylvania	Yes	No	2	2	2	2	1	2	1	1	2	1.67
Rhode Island	Yes	No	2	2	2	2	3	3	3	2	3	2.44
South Carolina	Yes	No	2	2	1	1	2	1	2	2	2	1.67
South Dakota	No	No	1	2	1	2	1	2	1	1	2	1.44
Tennessee	No	NO	4	2	3	2	2	2	2	2	3	2.44
Texas	No	No	3	3	4	2	2	2	2	2	3	2.56
Utah	Yes	No	2	2	2	2	1	2	1	1	2	1.67
Vermont	No	No	1	2	1	1	1	2	1	1	2	1.33
Virginia	No	No	2	2	2	2	3	2	1	3	2	2.11
Washington	Yes	No	2	2	3	2	3	3	3	2	3	2.56
West Virginia	No	No	3	2	3	2	2	2	2	2	3	2.33
Wisconsin	Yes	No	2	2	2	2	1	2	2	1	2	1.78

Appendix B. Indicator-Level National Results

Number and Percentage of Jurisdictions Meeting the Threshold for Each Structural Indicator

Key Action	Indicator #	Structural Indicator	All 2+	All %	LYI 2+	LYI %
Expand Opportunities Through Multiple Mathematics Pathways	1.1	State or district offices have formally approved and defined third- and fourth-year high school math pathway courses beyond the traditional sequence (Algebra I, Geometry, and Algebra II, or Math I, II, and III, followed by Precalculus).	31/51	61%	16/26	62%
Expand Opportunities Through Multiple Mathematics Pathways	1.2	State or district policy requires four years or credits of mathematics or continuous math enrollment through senior year.	38/51	75%	20/26	77%
Expand Opportunities Through Multiple Mathematics Pathways	1.3	Public higher education systems offer multiple, credit-bearing gateway math courses (e.g., Statistics, Quantitative Reasoning, Math for Elementary Teachers) in addition to College Algebra, aligned to distinct programs of study.	41/51	80%	23/26	88%
Expand Opportunities Through Multiple Mathematics Pathways	1.4	State or higher education systems provide guidance or policies explicitly aligning gateway math options with academic and career pathways.	33/51	65%	19/26	73%
Modernize Mathematics for Career Readiness and Civic Engagement	2.1	State agencies or local districts have established formal criteria or a review process to ensure math standards/course frameworks are regularly updated to reflect workforce demands and quantitative civic competencies.	43/51	84%	22/26	85%
Modernize Mathematics for Career Readiness and Civic Engagement	2.2	Workforce, industry, and/or civic interest holders are engaged with education leaders in formal collaborative groups at the statewide or system level that provide the opportunity for industry leaders to give feedback on math curricula or plans.	23/51	45%	10/26	38%

Key Action	Indicator #	Structural Indicator	All 2+	All %	LYI 2+	LYI %
Modernize Mathematics for Career Readiness and Civic Engagement	2.3	State or system guidance explicitly communicates that all math pathways are academically challenging and embed opportunities for further study.	27/51	53%	15/26	58%
Align and Accept Pathways	3.1	State or local policy sets high school graduation requirements that are formally aligned with public college admissions requirements regarding acceptable math courses.	27/51	53%	14/26	54%
Align and Accept Pathways	3.2	Public higher education institutions explicitly accept multiple math pathway courses for admissions purposes (not limited to Algebra II, Integrated Math III, and Precalculus).	27/51	53%	12/26	46%
Align and Accept Pathways	3.3	Statewide or system-level transfer agreements ensure pathway-aligned math courses count toward program of study requirements at four-year institutions (not only as general education electives).	38/51	75%	21/26	81%
Remove Placement Barriers	4.1	State or district policy establishes objective, multiple-measure criteria (e.g., GPA, state or local assessment data) for placement into advanced or accelerated secondary math, including automatic enrollment policies (where applicable).	13/51	25%	7/26	27%
Remove Placement Barriers	4.2	Public higher education institutions implement multiple-measures placement policies developed at the local or systemwide level for gateway math courses.	40/51	78%	19/26	73%

Key Action	Indicator #	Structural Indicator	All 2+	All %	LYI 2+	LYI %
Remove Placement Barriers	4.3	Corequisite support models are implemented at scale to enable direct enrollment into college-level math courses with concurrent academic support.	38/51	75%	23/26	88%
Support Effective Implementation	5.1	State provides dedicated funding or grant programs to support the implementation of math pathways, with prioritization for historically underserved communities.	21/51	41%	11/26	42%
Support Effective Implementation	5.2	State or local K–12 districts provide or endorse quality standards, instructional frameworks, or high-quality instructional materials (HQIM) criteria specific to secondary math pathway courses.	13/51	25%	9/26	35%
Support Effective Implementation	5.3	Ongoing implementation supports exist (e.g., technical assistance providers, coaching networks, communities of practice) for districts and colleges.	29/51	57%	16/26	62%
Support Effective Implementation	5.4	State, district, or higher education systems monitor equitable access and participation in math pathways implementation and use data to target support and resources.	30/51	59%	15/26	58%
Guide Informed Student Decisions	6.1	Public-facing materials clearly describe available math pathways and how each connects to postsecondary programs and in-demand careers.	30/51	59%	16/26	62%
Guide Informed Student Decisions	6.2	State or education system/institution policy provides advising frameworks or guidance for middle school through postsecondary transitions that support informed math pathway selection.	31/51	61%	17/26	65%

Key Action	Indicator #	Structural Indicator	All 2+	All %	LY1 2+	LY1 %
Guide Informed Student Decisions	6.3	Advising tools (e.g., course planners, career pathway maps) are aligned across secondary and higher education systems.	18/51	35%	9/26	35%
Build Cross-Sector Partnerships	7.1	State has a formal cross-sector governance structure (e.g., task force, steering committee) including K–12, higher education, workforce, and other interest holders.	34/51	67%	18/26	69%
Build Cross-Sector Partnerships	7.2	Roles, decision-making authority, and accountability structures for pathway development and monitoring are clearly defined.	25/51	49%	15/26	58%
Build Cross-Sector Partnerships	7.3	Cross-sector team meets regularly and produces documented outputs (e.g., meeting minutes, action plans, progress reports, policy recommendations, alignment guidance, monitoring reports).	32/51	63%	19/26	73%
Strengthen Preparation for Pre-Service and In-Service Educators	8.1	State defines or signals criteria for high-quality instructional materials specific to secondary math pathway courses.	11/51	22%	6/26	23%
Strengthen Preparation for Pre-Service and In-Service Educators	8.2	Comprehensive professional learning opportunities are available for secondary and higher education faculty implementing math pathway courses.	28/51	55%	16/26	62%
Strengthen Preparation for Pre-Service and In-Service Educators	8.3	Educator preparation programs incorporate content aligned to multiple math pathways (where applicable).	9/51	18%	4/26	15%

Key Action	Indicator #	Structural Indicator	All 2+	All %	LYI 2+	LYI %
Capture and Report Progress	9.1	State publicly reports middle school and high school math course-taking patterns, disaggregated by student subgroups.	36/51	71%	18/26	69%
Capture and Report Progress	9.2	State reports student access, progression, and completion within math pathways (e.g., course sequences, gateway completion).	32/51	63%	15/26	58%
Capture and Report Progress	9.3	K–12 and postsecondary data systems are linked or coordinated to longitudinally track math pathway participation and outcomes.	45/51	88%	23/26	88%

Appendix C. Methodology and Interpretation

Evidence was assessed using policy and governance documents, formal guidance and standards, implementation artifacts, capacity and resourcing evidence, monitoring and reporting, accountability and incentives, data infrastructure, and interest holder engagement. Findings drawn from public documents should be interpreted as the minimum level of implementation that could be verified. Direct state engagement can surface additional evidence but remains dependent on what state partners can locate and validate.

State governance structures also shape where relevant evidence is located. For indicators that reference state, district, higher education system, or institutional action, the review considered the level of authority identified in the indicator and the state's governance context. In states where responsibility is more locally distributed, district, system, or institutional evidence was considered where appropriate and consistent with the intent of the indicator.

Indicators are equally weighted within each key action. Average indicator scores are converted to the scale of adoption described below. A score of four requires both a high average and evidence that the work is institutionalized through a routine requirement, funding stream, reporting process, or accountability mechanism.

Structural and student outcome findings are presented together, but this report does not claim that structural scores cause student outcomes. Establishing those relationships requires longitudinal research and comparable student-level definitions over time.

Key Action and Structural Indicator Analysis Methodology

Scale of Adoption

This evaluation includes a structured Scale of Adoption designed to assess the extent to which each state has progressed in implementing multiple math pathways reforms. The Scale of Adoption measures the degree to which reform efforts are embedded in state policy, practice, infrastructure, and monitoring systems. It does not assess program effectiveness or student impact; rather, it evaluates the structural conditions that indicate system-level adoption.

The Scale of Adoption is grounded in established implementation science frameworks that conceptualize reform as a staged process rather than a single event. Stage-based models such as the Exploration, Preparation, Implementation, Sustainment (EPIS) framework³⁸ emphasize that reforms move through phases, beginning with exploration and planning, advancing through formal adoption and initial implementation, and ultimately reaching institutionalization and sustained practice. Similarly, implementation outcome research defines “adoption” as the decision and initial action to employ an innovation, distinguishing early adoption from deeper integration and operationalization.³⁹

Drawing on these principles, the Scale of Adoption positions each state along a continuum from planning to operationalized, supported implementation. The scale uses observable structural evidence—including policy enactment, formal guidance, operational artifacts, resourcing mechanisms, accountability structures, and monitoring systems—to determine the level of adoption. This approach ensures that adoption ratings are based on verifiable system conditions rather than stated intent or aspirational goals.

By situating states along a common adoption continuum, the Scale of Adoption enables cross-state comparison, identifies areas of relative strength and gap, and provides a baseline against which future implementation progress can be measured.

Analysis

1. Score each indicator under a singular key action

- a. **None (0)** = No evidence
- b. **Low (1)** = Stated intent/draft/limited example (e.g., draft guidance; one district doing it without state support)
- c. **Medium (2)** = Formalized and operating in some sites (policy adopted or guidance issued and implementation occurring in pilots/regions)
- d. **High (3)** = Operationalized and supported for scale (statewide coverage or strong enabling supports like funding, reporting, and technical assistance)

2. Average of indicator scores leads to adoption score (auto generated)

- a. **0** if average indicator score < 0.5
- b. **1** if average 0.5–1.2
- c. **2** if average 1.3–2.0
- d. **3** if average 2.1–2.7
- e. **4** if average ≥ 2.8 and at least one “institutionalization” proof point exists (e.g., rule/regulation, ongoing funding line, required reporting)

3. Nine key actions Scale of Adoption scores meanings

- a. **0 — Not evident:** No credible evidence the state is acting on the key action
- b. **1 — Exploring:** Planning/convening; problem definition; options being considered; no formal decisions
- c. **2 — Installing:** Infrastructure is being built: guidance drafted, pilots designed, funding set aside, data elements defined, contracts/roles set
- d. **3 — Initial implementation:** The work is happening in practice in at least some places (districts/colleges), with feedback loops and improvement cycles
- e. **4 — Implemented at scale / institutionalized:** Statewide (or near-statewide) adoption, embedded in routine operations (requirements, funding streams, reporting, accountability)

Scoring Rubric by Indicator

Scoring scale (applied to every indicator)

- 0** = None (No credible evidence)
- 1** = Low (Planning, draft, or isolated example)
- 2** = Medium (Formalized and operating in some sites)
- 3** = High (Operationalized at scale and supported)

Structural Indicator Score Explanations and Evidence Types by Key Action

Key Action	Indicator	Score 1 (Low)	Score 2 (Medium)	Score 3 (High)	Required Evidence Types for Score 3
1	1.1 Approved 3rd/4th-Year HS Pathway Courses	Draft frameworks OR isolated pilot districts	State formally approves additional pathway courses	Courses approved, broadly offered, and supported by reporting or resourcing	Policy + Implementation Evidence + Monitoring OR Capacity & Resourcing
1	1.2 4-Year Math Requirement	Proposal/ discussion	Formal policy adopted	Requirement operational statewide and enforced via reporting or accountability	Policy + Monitoring OR Accountability
1	1.3 Multiple Credit- Bearing Gateway Courses	Isolated colleges offer alternatives	System-level policy or guidance allows multiple gateway options	Widely available, aligned to programs, and tracked	Policy + Implementation + Monitoring
1	1.4 Guidance Aligns Gateway Options	Informal messaging	Official state guidance issued	Embedded in advising tools, program maps, or accountability systems	Formal Guidance + Implementation + Accountability
2	2.1 Standards Update Criteria	Planning discussion	Documented review cycle or criteria	Operational review process with documented revisions and interest holder input	Policy + Interest Holder Engagement + Formal Guidance
2	2.2 Workforce/Civic Engagement	Listening sessions	Formal advisory group established	Interest holder input documented in standards/ pathway revisions	Interest Holder Engagement + Formal Guidance
2	2.3 Communication of Rigor & Access	Messaging in presentations	Official written positioning in guidance	Messaging tied to policy decisions and equity accountability	Formal Guidance + Accountability OR Monitoring

Key Action	Indicator	Score 1 (Low)	Score 2 (Medium)	Score 3 (High)	Required Evidence Types for Score 3
3	3.1 Graduation & Admissions Alignment	Discussion only	Documented policy alignment	Alignment enforced through admissions practice and reporting	Policy + Implementation + Accountability
3	3.2 Pathways Accepted for Admission	Some institutions accept alternatives	Systemwide admissions policy	Acceptance applied consistently and monitored	Policy + Implementation + Monitoring
3	3.3 Transfer Agreements Accept Pathway Math	Informal acceptance	Formal agreements in place	Agreements operational statewide and monitored	Policy + Implementation + Monitoring
4	4.1 Multiple-Measure K–12 Placement	Pilot districts	State policy or guidance adopted	Operational statewide and monitored	Policy + Implementation + Monitoring
4	4.2 Multiple Measures in Higher Ed	Individual institutions	System policy adopted	Placement data shows scaled implementation	Policy + Implementation + Monitoring
4	4.3 Corequisite Model	Pilot sections	System endorsement	Widely implemented and completion monitored	Policy OR Guidance + Implementation + Monitoring
5	5.1 Dedicated Funding	Proposed funding	Funding awarded (limited or one-time)	Ongoing funding line item with prioritized allocation	Capacity & Resourcing + Policy
5	5.2 HQIM /Quality Standards	Draft criteria	Officially adopted criteria	Criteria tied to procurement, approval, or funding decisions	Formal Guidance + Accountability

Key Action	Indicator	Score 1 (Low)	Score 2 (Medium)	Score 3 (High)	Required Evidence Types for Score 3
5	5.3 Ongoing TA/ Coaching	One-time PD	Structured TA network	TA delivered at scale with participation tracking	Capacity & Resourcing + Implementation
5	5.4 Equity Monitoring	Equity mentioned	Disaggregated reporting exists	Data used to target funding/supports	Monitoring + Accountability
6	6.1 Public-Facing Materials	Website mention	Comprehensive pathway descriptions	Widely distributed and regularly updated	Formal Guidance + Implementation
6	6.2 Advising Framework	Concept document	Formal advising framework issued	Framework implemented across sectors	Formal Guidance + Implementation
6	6.3 Course Planners/ Maps	Example maps	Official cross-sector maps	Used statewide in advising systems	Formal Guidance + Implementation + Monitoring
7	7.1 Governance Structure	Informal convening	Formal charter	Governance embedded in decision making	Policy/Governance + Implementation
7	7.2 Roles & Accountability	Roles discussed	Roles documented	Accountability tied to deliverables	Governance + Accountability
7	7.3 Meetings & Outputs	Meetings held	Meeting schedule and minutes	Policy outputs or formal guidance produced	Governance + Implementation

Key Action	Indicator	Score 1 (Low)	Score 2 (Medium)	Score 3 (High)	Required Evidence Types for Score 3
8	8.1 HQIM Criteria	Draft criteria	Official criteria adopted	Required for adoption or funding decisions	Formal Guidance + Accountability
8	8.2 Professional Learning	One-time PD	Structured multi-session PD	Ongoing statewide PD with participation tracking	Capacity & Resourcing + Implementation + Monitoring
8	8.3 Educator Prep Alignment	Discussions only	Formal alignment agreements	Prep standards revised or embedded	Policy + Implementation
9	9.1 Public Course-Taking Reporting	Internal reporting	Public reporting	Public, disaggregated, and required annually	Monitoring + Accountability
9	9.2 Pathway Progression Reporting	Pilot reporting	State-level reporting	Longitudinal reporting tied to accountability	Monitoring + Data Infrastructure + Accountability
9	9.3 Linked K–12 & Postsecondary Data	Data-sharing discussion	Formal MOU or shared identifier	Operational longitudinal system used for reporting	Data Infrastructure + Monitoring

Evidence Type Definitions and Examples

Evidence Type	Definition	Detailed Examples	Key Actions Supported
Policy/ Governance	Formal rule, regulation, statute, or board action establishing authority or requirement	State legislation Board-adopted graduation requirements Admissions policy revisions Administrative code updates Placement policy Statewide transfer compact Formal cross-sector task force charter	1, 3, 4, 7
Formal Guidance/ Standards/ Framework	Official but non-binding state direction defining expectations	Course framework documents Pathway definitions HQIM criteria Advising framework Placement guidance documents Corequisite implementation toolkit Standards review criteria	1, 2, 5, 6, 8
Implementation Evidence (Operational Proof)	Artifacts showing policy/guidance being used in institutions	District master schedules College catalogs listing multiple gateway math options Signed articulation agreements in effect Corequisite sections running Public-facing pathway maps Documented advising materials in use	1, 3, 4, 6
Capacity & Resourcing	Funding, staffing, or infrastructure committed to support implementation	Budget line items Grant RFPs and award lists TA provider contracts Staffing allocations Professional learning calendar tied to pathway rollout Funding formula adjustments	5

Evidence Type	Definition	Detailed Examples	Key Actions Supported
Monitoring & Reporting	Public or internal systems tracking participation, access, or outcomes	Public dashboards (course taking) Disaggregated reports Annual progress reports Gateway completion data Monitoring memos Improvement cycle documentation	9
Accountability & Incentives	Evidence that implementation is tied to consequences or performance expectations	Performance funding formulas Accountability dashboards including pathway indicators Accreditation requirements referencing math pathways Compliance reporting mandates Required reporting tied to funding	3, 4, 9
Data Infrastructure & Interoperability	Evidence that data systems can technically track students across sectors	State longitudinal data system documentation Unique student identifier across K–12 and higher ed Data-sharing MOUs Cross-sector data dashboards Transfer credit tracking systems	9
Interest Holder Engagement/ Field Adoption	Evidence that actors beyond state agency are actively participating or endorsing reform	MOUs with districts Faculty senate approvals Workforce advisory board endorsements Participation rosters Letters of support Industry review panels	7
Informational/ Planning	Evidence of intent but no formal adoption	Slide decks Listening session notes Meeting summaries Public statements Concept memos Draft proposals	2 (early), 5 (early), 7 (early)

Appendix D. Launch Years Initiative Heatmap

Adoption and Mean Scores (0–4) for Each Key Action for LYI Member States 2026

Key Action	1	2	3	4	5	6	7	8	9	
State	Expand Opportunities Through Multiple Mathematics Pathways	Modernize Mathematics for Career Readiness and Civic Engagement	Align and Accept Pathways	Remove Placement Barriers	Support Effective Implementation	Guide Informed Student Decisions	Build Cross-Sector Partners	Strengthen Preparation for Pre-Service and In-Service Educators	Capture and Report Progress	Mean
Alabama	1	1	2	2	1	2	1	2	2	1.56
Arizona	2	2	2	2	1	2	1	1	2	1.67
Arkansas	2	2	2	2	1	2	1	1	2	1.67
Colorado	2	2	2	2	1	1	2	1	2	1.67
Connecticut	2	1	2	2	1	1	2	1	2	1.56
District of Columbia	1	1	1	1	2	2	1	2	2	1.44
Georgia	4	2	3	3	2	3	2	1	2	2.44
Hawai'i	2	2	2	2	1	1	3	1	3	1.89
Idaho	3	2	2	2	2	2	2	2	2	2.11
Indiana	4	2	3	3	3	2	3	3	4	3.00
Kansas	3	2	2	2	2	2	3	2	2	2.22
Louisiana	4	2	3	2	1	2	3	2	3	2.44
Maine	2	2	2	1	1	2	2	2	1	1.67

Key Action	1	2	3	4	5	6	7	8	9	
State	Expand Opportunities Through Multiple Mathematics Pathways	Modernize Mathematics for Career Readiness and Civic Engagement	Align and Accept Pathways	Remove Placement Barriers	Support Effective Implementation	Guide Informed Student Decisions	Build Cross-Sector Partners	Strengthen Preparation for Pre-Service and In-Service Educators	Capture and Report Progress	Mean
Maryland	3	3	2	2	3	2	3	2	3	2.56
Massachusetts	2	2	2	2	2	2	2	2	2	2.00
Nevada	2	2	2	2	2	2	3	2	3	2.22
New Mexico	2	3	2	2	2	2	3	2	2	2.22
New York	2	2	2	2	2	2	2	2	2	2.00
North Carolina	3	3	2	2	2	2	3	2	2	2.33
Oregon	2	2	3	2	3	2	2	2	2	2.22
Pennsylvania	2	2	2	2	1	2	1	1	2	1.67
Rhode Island	2	2	2	2	3	3	3	2	3	2.44
South Carolina	2	2	1	1	2	1	2	2	2	1.67
Utah	2	2	2	2	1	2	1	1	2	1.67
Washington	2	2	3	2	3	3	3	2	3	2.56
Wisconsin	2	2	2	2	1	2	2	1	2	1.78

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Stephanie White, High School Equivalency Coordinator, Oregon Higher Education Coordinating Commission
Dr. Veronica Dujon, Director, Office of Academic Policy and Authorization, Oregon Higher Education Coordinating Commission
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