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mbae
MASSACHUSETTS
Business Alliance for Education

HIGH SCHOOL REDESIGN:
Building stronger pathways to college and careers

Massachusetts has developed a nationwide reputation for educational excellence over the last 30 years and the Commonwealth continues to place at or near the top of 50-state comparison rankings on key education metrics. The Massachusetts Business Alliance for Education (MBAE) is proud to have played a role in advocating for some of the policy reforms that led to the Commonwealth's prominence in many of these lists.

One often-cited area of our state's improvement is in graduation rates. Although Massachusetts does not currently have the highest high school graduation rate in the country, the Commonwealth's rate of 88 percent is only a handful of percentage points below the nationwide leading rate of 92 percent.[1] From this broad perspective, it may appear as though the state of public high schools in the Commonwealth is strong, and that high school students are being adequately prepared to move on to higher education or enter the workforce.

In reality, the rosy aggregate statistics and the history of excellence conceal an important truth: many high schools in Massachusetts are stuck in the past, using old models of teaching and learning that are not aligned with the realities of education in the 21st century. These traditional high school models, where students are all taught in the same way and expected to move forward at the same pace, are holding too many students back from reaching their full potential.

ONLY **44%** of MA 9th graders go on to earn a degree within six years of graduating high school

The worst result of this imbalance between outdated high school models and 21st century needs is that far too many high school students are falling through the cracks because they are not being taught the foundational concepts that will allow them to find success in both higher education and in the workforce. One important measure of preparedness in high school is whether students take the sort of advanced coursework—such as Advanced Placement (AP) courses—that will prepare them for the rigor of a higher education curriculum. In the Commonwealth, far too few high school students participate in advanced coursework (21.3% of the total student population) and the data becomes even more troubling when broken down by race and ethnicity: white students were significantly more likely to participate in advanced coursework than their Black or Latino peers.[2]

MBAE also hears regularly from our members and affiliates, who collectively represent over 30,000 employers across Massachusetts, about another major consequence of outdated high school models: the talent pipeline of workers may not produce enough qualified graduates to fulfill regional workforce needs over the next generation. As state leaders seek to strengthen the Commonwealth's pipeline of workers and ensure greater equity of opportunity for all students, they should pay particular attention to programs that provide pathways for high school students to earn the credits and credentials that qualify them to interview for in-demand jobs and position them for post-graduate success. Pathways in the high school space can be crucial springboards that allow students who have traditionally been left behind by our K–12, higher education, and workforce development systems to access programs that are aligned with jobs that pay high wages and support college and career success. However, in order to make this vision a reality, many policymakers and practitioners must work to upend the status quo and develop innovative strategies for redesigning the traditional high school model into something that is more responsive to the economic needs of the future and that meets the long-term needs of students and their families.

It is important to note that over the last two years, the Commonwealth's public education system has endured unprecedented challenges brought about by the COVID-19 pandemic. Although we are still waiting to learn more about how the pandemic has affected labor market trends and future economic shifts, we do know that students across Massachusetts suffered significant learning loss: student achievement scores on the Massachusetts Comprehensive Assessment System (MCAS) dropped by as much as 52 percent for some grades/subjects compared to the pre-pandemic results.[3] These setbacks make it all the more urgent that we provide students with opportunities to get back on track by allowing them to access the sort of high school programs that can give them clear opportunities to succeed in higher education as well as the workforce.

We also know that the pandemic had a disproportionately devastating impact on communities that have lived through years of economic disinvestment and may not have previously had the resources to enact a redesign of high school pathways policies.[4] The recovery, which has been complemented with an unprecedented amount of school funding in the form of federal COVID-Relief grants and increasing state aid to schools through the implementation of the 2019 Student Opportunity Act, presents Massachusetts and its school districts with an opportunity to take steps in the right direction by focusing efforts to develop new high school models and pathways in areas that serve the students with the greatest need.

MCAS SCORES DROPPED

52% for some grades/ subjects compared to the pre-pandemic results

By leveraging the historic opportunity presented by these unprecedented funding increases, state and district leaders can take action to fundamentally redesign the way that high schools in Massachusetts operate as well as the structure of the programs offered within those schools. In developing the recommendations contained in this report, MBAE consulted a number of resources—including our previous work on this issue. In 2008, MBAE established and convened an Employer Commission on High School Reform comprised of business leaders from across the Commonwealth. The final report issued by the Commission, entitled *Educating a 21st Century Workforce,* spelled out a number of strategies and recommendations for how state leaders could rethink the traditional model of high school. Six years later, MBAE released a new report on issues that Massachusetts should prioritize for the coming 20 years. The New Opportunity to Lead report was a comprehensive analysis of Massachusetts's education system which sounded the alarm that the Commonwealth's first-in-the-nation levels of student achievement had plateaued and that significant action was needed to reinvigorate the way that we educated our students.

Lastly, in an effort to incorporate the latest thinking on high school pathways, MBAE also reviewed three leading reports from the last couple of years that represent the field's latest thinking on best practices in the high school redesign and pathways space. We have combined our review of past MBAE work and this landscape look of national best practices to outline a series of steps that the Commonwealth can take to positively transform our state's high schools to the benefit of Massachusetts's students.

Traditional High School Redesign Framework

Families, advocates, and policymakers have been calling for changes to the design and structure of high school for a number of years. In fact, the 2008 MBAE report first highlighted a number of ideas that are very important to the idea of high school redesign, such as the ways in which high schools structure learning time and coursework delivery. The takeaways from the report include a number of concepts that are foundational to the high school redesign movement, including:

Personalized Learning	Personalized learning involves tailoring instruction to the individual needs of the students in each classroom by customizing each learning experience according to a student's unique skills, preferences, and experiences. In high school, the concept of personalized learning can also encompass efforts to help each student chart a pathway to higher education or the workforce based on their career goals and personal needs.
Work-Based Learning and Project-Based Learning	Work-based learning programs incorporate an alignment of classroom and workplace learning; an application of academic, technical, and employability skills in a work setting; and support from classroom or workplace mentors.
Competency-Based Learning	The basic idea of competency-based learning is that student success should be measured by skills and demonstrated learning rather than time spent in a classroom. Instead of having students earn credit based on putting in enough "seat time," redesigned high schools that use the competency-based learning model have students move forward by demonstrating that they have learned specific, clearly defined learning goals that will help them succeed in college and career.
Flexible School Schedules	High school leaders often need to secure flexibility for the schedules of their students, especially if the students may be taking college credit-bearing coursework or a workforce training course that is taught at a different location.
Expanded Learning Time	Expanded learning time encompasses programs or strategies implemented to increase the amount of instruction and learning students experience—including afterschool, summer, and in-school programs.

A New Framework: Learner Pathways

The core concepts of the traditional high school redesign framework remain very relevant and important in today's context. But in recent years, there has been an increasing amount of momentum around the idea of learner pathways as an especially effective—and comprehensive—high school redesign strategy.

Learner pathways is a term that refers to programs that start in high school where students, guided by advisors, move forward along clearly-defined pathways that give them exposure to higher education coursework and workforce training experiences. Pathways programs blend together rigorous academic learning with greater opportunities for students to earn industry-recognized credentials as well as college credits that are able to be transferred to an institution of higher education.[5]

There are two particular pathways programs that are worth a special mention: the Early College high school model and the Pathways in Technology Early College High School (P-TECH) model.[6,7]

Connections between Learner Pathways and High School Redesign

One of the main reasons that the idea of learner pathways has gained momentum is because it incorporates many of the foundational ideas related to high school redesign—policy strategies that have been proven effective. A number of states have made specific efforts to design their learner pathway policies based on high school redesign concepts:

- **Personalized learning** is a core component of many pathways programs, which are designed to provide students with not only a range of college and career opportunities but also individualized guidance and counseling on how to navigate the different options and chart a path that is aligned with a student's skills and goals.

In **North Carolina**, which has a robust network of early colleges and other innovative high school models, one of the six design elements that the state encourages programs to focus on is "personalized student supports," which dictates that every high school student should have a personalized four-year plan that is tailored to their goals.

- Learner pathways programs, especially those with an explicit focus on certain in-demand industries, include significant **work-based learning** and **project-based learning** components for participating high school students.

In order to be approved by the state of **Texas** to run a P-TECH learner pathway program, high schools must have a plan to provide their students with a variety of work-based learning experiences at every grade level—including apprenticeships, mentoring programs, job shadowing, facility visits, and more.

- Pathways programs can be designed around **competency-based education** concepts, including that graduation requirements offer high school students both time-based and competency-based options for completing their studies.

In **Georgia**, the Alternative Graduation Plan allows high school students who participate in pathways programs to fulfill graduation requirements by completing certain credentials such as an in-demand technical certificate or an associate degree.

- Many pathways programs allow for **flexible course schedules**, especially programs where students need to take part of their coursework at a high school and the rest of their program at a community college or job facility.

Early College High School

Students who attend an Early College program take college coursework—strategically sequenced along a career pathway—while still in high school. Students receive robust counseling and guidance that helps them navigate their pathway, and they graduate with a high school diploma and a significant amount of college credits.

P-TECH

The P-TECH high school model, which has been successfully implemented in 13 states, is a specific kind of Early College program that is focused on a particular STEM industry that has a significant presence in the surrounding region.

P-TECH high schools are designed so that students graduate with not just a high school diploma but also an associate degree that qualifies them to interview for in-demand STEM jobs. In many P-TECH schools, students attend for a total of six years in order to complete their degree.

High school students in **Colorado** can apply for the CareerWise Colorado youth apprenticeship pathways program, which allows participants to have a flexible schedule that splits their time between high school and participating employers. In their junior year, participating students go to high school three days per week and complete 12–16 hours of on-the-job training; for senior year, the students go to school two days a week and complete 20–24 hours of training.

- Learner pathways programs often use **expanded learning time** strategies to maximize the amount of time that participants can spend gaining exposure to college coursework and workforce experiences.

The University of **Connecticut**, through its Office of Early College Programs, runs a Pre-College Summer program that allows rising high school sophomores, juniors, and seniors to take college-level coursework during the summer while living on the University's campus.

Here in **Massachusetts**, as a response to potential learning loss caused by the pandemic and remote learning, the state provided funding for high school students who participate in Early College programs to take two college courses over the summer.

The Important Role of Advising

Because of the comprehensive nature of learner pathways programs and the way that they encompass multiple high school redesign strategies, the role of high school advisors and counselors becomes even more important in helping students navigate their pathways.

State policymakers can support high school advisors in a number of ways, including by developing resources and tools that counselors can use to inform students about pathways opportunities.

Advising and counseling services should be targeted toward districts and schools that serve the greatest number of students who have traditionally been left behind by the Commonwealth's systems of K–12, higher education, and workforce training.

National Best Practices

In order to identify areas where the Commonwealth can look to develop new innovations, MBAE reviewed three of the most widely-cited national reports on high school redesign and pathways programs. These reports were written by leading advocacy voices and were developed based on research and interviews with practitioners and policymakers in states across the country. They each provide best practice recommendations for state policymakers who are looking to implement innovative policy strategies designed to grow the number of high-quality pathway options available to high school students. For each report, MBAE has pulled out selected takeaways that have particular relevance for Massachusetts.

REPORT
Pathways Matter

AUTHOR: ExcelinEd, a nonprofit organization that provides support to state leaders who are looking to enact transformational change in education policy to unlock lifelong success for every child.

MAIN IDEA: As policymakers look to support learner pathways, they must recognize that stakeholders need to coordinate their efforts in order to best serve students as they travel along their different educational journeys.

FRAMEWORK: The Pathways Matter Framework recommends that state leaders focus on 20 key policy strategies that are organized into six different focus areas: learner pathways, postsecondary acceleration, postsecondary credential attainment, workforce readiness, employer engagement, and continuum alignment & quality indicators.

SELECTED TAKEAWAYS: The ExcelinEd report emphasizes the idea of workforce readiness, which involves using regional labor market needs to back-map curricula in ways that ensure students are able to access coursework and credentials that are aligned with growing industries.

- States should ensure that more students are able to earn industry-recognized credentials in high school and are required to take rigorous coursework.

Another point highlighted by the ExcelinEd report is the importance of engaging employers in high school pathways programs: by providing incentives and removing barriers, policymakers can encourage greater participation from business leaders in curriculum design, governance bodies that conduct oversight of pathways programs, and other

aspects including statewide policy efforts to ensure alignment and program quality.

- States should establish new mechanisms for soliciting more input from business leaders on different aspects of high school pathway policies.

REPORT
Unlocking Potential: A State Policy Roadmap for Equity and Quality in College in High School Programs

AUTHORS: The College in High School (CIHS) Alliance, a coalition of national and state organizations that works to expand access to pathways programs in high school, and the Level Up coalition, a partnership organized by the Education Strategy Group.

MAIN IDEA: State leaders who are looking to expand equitable access to programs such as dual enrollment, concurrent enrollment, and early college, should consider following this set of policy recommendations.

FRAMEWORK: The *State Policy Roadmap* breaks down its recommendations into six categories: equity goal & public reporting; program integrity & credit transfer; finance; course access & availability; instructor capacity; and navigational supports.

SELECTED TAKEAWAYS: The CIHS report makes it clear that high school pathways programs should prioritize equity by striving to serve all students, especially those who have traditionally been left behind by the Commonwealth's education systems—including K–12, higher education, and workforce training. At the very least, pathways programs should ensure that they are not exacerbating equity gaps; in an ideal world, pathways programs would have an explicit focus on underserved students and specific, data-driven goals for closing equity gaps.

- State leaders should work to ensure equitable access to all pathways programs while also scaling programs that have an explicit focus on equity.

When it comes to public reporting of data, the CIHS report strongly encourages states to provide disaggregated student outcomes data for participants in high school pathways programs—preferably in a public-facing tool that is easy to navigate and understand. The report also mentions that an ideal reporting system would be able to separate student outcome data based on which type of pathways program the student participated in.

- State leaders should develop new public-facing data tools that allow for disaggregation of student outcome data by a number of characteristics including participation in specific pathways programs.

REPORT
The Big Blur

AUTHOR: JFF (formerly Jobs for the Future), a national nonprofit that has worked for nearly 40 years to design innovative and scalable solutions that create access to economic advancement for all.

MAIN IDEA: *The Big Blur* report argues that states should completely restructure the student experience for students in grades 11 through 14 by creating new institutions that blur the lines between high school, higher education, and the workforce.

FRAMEWORK: *The Big Blur* report splits its best practice recommendations into four categories: incentives, alignment, governance, and staffing.

SELECTED TAKEAWAY: The effort to expand and accelerate implementation of redesigned high school pathways across a state's school districts would benefit from a unified governance structure that is solely focused on important

tasks such as developing a process for approving new pathways programs and conducting regular reviews of existing pathways programs to ensure alignment with regional labor market needs—as well as equity of access.

- State leaders should work to further develop coordination between pathways governance bodies while also ensuring that governance bodies use student outcomes data to evaluate program alignment with regional economic needs.

Policy Recommendations for Massachusetts

Based on all of the different information that MBAE has reviewed on innovative best practices for redesigning the high school experience—including recent information on responses to the pandemic, takeaways from MBAE's *The New Opportunity* to Lead report, the recommendations highlighted in MBAE's 2008 *Educating a 21st Century Workforce* report, and a synthesis of three recent reports from leading pathways organizations—we have developed a set of policy recommendations to guide the Commonwealth's direction in advancing innovative and significant redesign models over the next several years, beginning with some immediate policy actions and program investments.

The policy recommendations on high school redesign and the expansion of meaningful college and career readiness pathways within these redesigned high schools fall into four broad categories: a change in the culture, characteristics and educational structures of our state's high schools; the equitable scaling of pathways programs that demonstrably improve student post-graduate outcomes; a greater alignment of programming to meeting the needs of high-demand careers through employer input; and the provision of data that can be used to make decisions about effective strategies and pathways programs.

1. Rethink and reshape the culture, characteristics, and educational structures of high schools across the Commonwealth.

- Develop work-based and project-based learning curricula, with the input of regional business leaders, and integrate those experiences into new high school programs.
  - State leaders should establish a goal for providing all high school students in the Commonwealth with access to a high-quality work-based learning experience within the next 4 years.
- Integrate concepts related to competency-based education into new high school programs designed to help students earn college credits and workforce experience.
  - Massachusetts high schools, with guidance, direction and incentive from the state, should establish structures that allow students to progress through coursework requirements based on demonstration of skills.
  - State policymakers should create alternative graduation pathways where students can prove competency through the attainment of industry-recognized credentials or postsecondary degrees.

2. Scale high school pathway programs with proven records of success while expanding access in equitable ways.

- Support a significant expansion of the successful Early College model, which has the potential to double the college degree completion rate for students of color and students from low-income backgrounds.
  - There is a strong base of evidence showing that the Early College model produces positive outcomes for students in the Commonwealth: graduates of Early College programs were significantly more likely to

complete the Free Application for Federal Student Aid (FAFSA) form, enroll in higher education, and stay enrolled for at least two semesters.

  - Most importantly, Early College programs are serving the students who have traditionally been shut out of our higher education system: two-thirds of Early College students identify as Black or Latino, and half of all Early College students are economically disadvantaged.

- Strengthen the pipeline of STEM workers by launching the P-TECH model in Massachusetts, leading to the establishment of several P-TECH high schools across the state.
  - Successful P-TECH schools include business partners who are actively engaged in curriculum design and offer internship (and sometimes externship) opportunities for students and faculty. The business community in Massachusetts has a number of leaders who care deeply about improving our STEM talent pipeline and would be very interested in the P-TECH model.

- Help more high school students earn industry-recognized credentials that lead to good paying jobs.
  - In order to determine which credentials have value in the Massachusetts labor market, state leaders should develop a list showing which credentials are aligned with in-demand occupations that pay high wages. Based on this list, the state should then provide financial rewards to high schools that allow their students to earn credentials that confer the most value.

- Ensure that all high school students in the Commonwealth have access to a career pathway option by expanding CTE options to all high schools and increasing the number of Innovation Pathways programs as well as the rates of student participation.
  - The Innovation Pathways program is a key part of the state's career pathways landscape because it provides access to workforce training for students who don't attend a vocational-technical high school or an Early College program. Policymakers should expand Innovation Pathways to more schools across the Commonwealth—and they should also support an expansion of a variety of CTE programs in the state's non-vocational high schools.
  - In order to ensure equity of access to high-quality pathway options, Massachusetts should also require changes to the admissions policies at the Commonwealth's highly successful vocational-technical high schools so that the students who could most benefit from these programs are given a fair shot at being admitted.

- Encourage more students to take courses that are aligned with in-demand pathways, such as computer science coursework.
  - In Massachusetts, 90 percent of high school students attend a school that offers computer science but only 6 percent of students are actually enrolled in a computer science course.
  - In order to respond to increasing employer demand for computer science skills, state leaders should consider strategies to encourage more students to take the computer sciences courses offered at their schools—such as allowing computer science coursework to fulfill certain high school graduation requirements.
  - Massachusetts should also consider how to incentivize greater participation in coursework related to Career and Technical Education (CTE) as well as courses with greater academic rigor including Advanced Placement (AP), International Baccalaureate (IB), and courses in the MassCore program through both incentives and use of the state's accountability system.

3. Create greater alignment between pathway programs and workforce needs, especially through increased employer input and strengthened governance.

- Conduct a biennial review of all pathway programs that focuses on alignment with workforce needs and equity of access to high-quality programs.
  - This review process should incorporate input from business leaders across the state as well as student outcome data showing how graduates from different pathway programs fare in the labor market.
  - State leaders should also ensure that the review process has a strong equity focus by determining whether students who live in under-resourced communities have access to pathway programs that are aligned with in-demand jobs.
- Empower the Workforce Skills Cabinet to facilitate greater collaboration among state agencies around high school redesign programs by creating at least one dedicated staff position that is exclusively focused on pathways and will support the Cabinet's work around implementation.
  - The next Governor should also expand the membership of the Workforce Skills Cabinet to incorporate perspectives from regional business leaders so that the Cabinet can play a role in ensuring alignment between pathways programs and regional workforce needs.
  - In addition to making changes to the Workforce Skills Cabinet through Executive Order, state leaders should work to codify the governance body in statute to ensure continuity.

4. Collect better data on how pathway programs are helping students–and get that data in the hands of families, educators, and advocates.

- Set up the data infrastructure needed to collect information about which pathways programs are producing positive outcomes for their graduates.
  - The Commonwealth already collects some information on whether high school graduates are finding success in college or career pathways, but the next step that Massachusetts must work toward is being able to pull data showing outcome metrics for students who participated in specific pathways programs—including Early College, P-TECH, Innovation Pathways, vocational schools, the MassCore program of study, and more.
  - As is the case with anything involving student data, privacy and security must be paramount to these efforts.
- Build new public-facing data tools that clearly show information about different pathway programs and the preparedness levels of students in Massachusetts.
  - The Executive Office of Education is already in the process of developing a public data tool, required by the Student Opportunity Act law, which will show a range of valuable information including participation in pathways programming, attainment of industry-recognized credentials, postsecondary success measures, and employment data.
  - We should all champion and amplify efforts to increase public reporting of data on pathways—and to help ensure that families, educators, and advocates are able to use that information to inform their decisions.

Although a significant amount of work lies ahead in terms of redesigning the Commonwealth's high schools, MBAE is optimistic about our collective ability to affect change that will make a difference in the lives of high school students. In recent years, we have seen a significant amount of growing momentum around high school pathways policies that incorporate the fundamental aspects of the traditional high school redesign model. The growth of Early College programs in Massachusetts is proof of the increasing demand for these next-generation pathways programs, and—when coupled with the unprecedented amount of resources available to educators over the next five years—these trends point toward a promising future for high school students, and the business community, in the Commonwealth.

APPENDIX A

The New Opportunity to Lead Report on High School Redesign and Pathways

Released in 2014, MBAE's *The New Opportunity to Lead* report provided a blueprint for modernizing the Commonwealth's education system. A number of passages from *The New Opportunity to Lead* report informed the thinking behind this paper, and the most relevant passages are reprinted in this appendix.

The report envisions new models of high school education in the section entitled "Developing new approaches to learning":

> Achieving this vision of a curriculum that gives all students a deeper and broader range of knowledge, skills and competencies is unlikely if schools and teachers continue to operate within the confines of the current 20th century education model. Currently, all students are taught in the same way, for the same amount of time and are expected to progress at the same pace. We agree with those who argue we need to reimagine the student learning experience if every learner in Massachusetts is to emerge ready to contribute to the new economy. These new approaches to student learning have been given different names, including personalized learning or student centered learning, but whatever they are called, they share common features.
>
> - Learning can take place anywhere and anytime, both within and outside schools. This means giving all students equal access to out-of-hours learning opportunities (we will return to this in Chapter 6.) It will also undoubtedly involve technology and new, blended learning approaches (which we look at in more detail in Chapter 5). For many students schools will continue to provide a safe and secure environment for students to study both within and outside of the formal school day.
> - More personalized approaches to teaching, in which teachers tailor their approach to each student to take account of where the student is, regularly assessing and adapting their approach in light of progress, and responding to the student's needs and interests. The role of the teacher becomes not simply that of facilitator, but instead what John Hattie, Professor of Education at Melbourne University, calls an 'activator', providing challenge, inspiration and support in overcoming the barriers that lie on the road to deep learning. (Chapter 4 sets out what this new approach to teaching would look like in practice.)
> - A new role for students in their own learning. Students should take much greater responsibility for their own learning, and receive much more substantial feedback from teachers and other students to help them understand their own strengths and learning challenges.
> - Learning should be competency based, with students progressing on mastery of core competencies rather than by age or the number of hours completed.

One section of the report, a call-out page entitled "High School 2030," laid out a vision for what redesigned high schools might look like in future years:

> A lot of the content you needed to succeed in high school you could now get online at home. There were numerous sources, recommended by the school. For example, the state's leading universities such as Harvard and MIT incentivized their professors to produce online lectures, with marvelous graphics, specifically for high school students, because by doing so they generated the supply of future graduates and transformed the image of universities.
>
> Even so, going into school each morning was still the expectation. As always, the social aspects of school had their appeal but the motivational power of the whole learning experience was now of a different order. No two days were the same. They involved a different mix of individual study, teamwork focused on solving problems, seminar

discussions and arguments about the content learned at home, large classes with top lecturers—beamed in as holograms—on important curriculum themes and one-to-one sessions with a personal tutor reviewing progress on an individual learning plan and thinking through the next steps. In effect these were counseling sessions. Then sometimes for an entire week, the school as whole would focus on some major issue affecting the community and apply its educational and human capital to solving the problem or enacting the solution.

The curriculum had moved on since the Common Core had been introduced 15 years ago. Not that the Common Core had been replaced; rather it had been extended and deepened. Contrary to received opinion back then, it turned out that excellent teaching combined with inspiring online materials ensured that pretty much every student could, in time, master the Algebra 2. Some students came to it from a theoretical perspective; others from an applied or vocational perspective, depending on their preferences. In addition to the core subjects, high school students could study a much wider range of vocational and academic elective options too. Many of these options were now available through online courses. The school had become an orchestrator of educational options as much as a provider. This meant the faculty had to be aware of what options were available, but the key was for them to know the students well as individuals, and to provide constant challenge and encouragement as students took on ever more difficult assignments. The most talented students were assembling university-level courses in their learning profiles; others were mastering vocational skills, such as coding, plumbing or customer service. Their learning profiles described not just their progress on these outcomes but their progress too in learning the leadership, interpersonal and team working skills that the economy valued so highly.

> Since 2015 many school buildings had been redesigned with some of the old classrooms being let as design studios, startup incubation spaces and offices. Increasingly as students moved towards graduation, the school was a place where learning and work seemed to merge, just as in workplaces across the country work and learning were becoming synonymous.

APPENDIX B

Pathways Policy Frameworks from National Reports

REPORT

Pathways Matter

AUTHOR: ExcelinEd

MAIN IDEA: The Pathways Matter Framework recommends that state leaders focus on 20 key policy strategies that are organized into six different focus areas: learner pathways, postsecondary acceleration, postsecondary credential attainment, workforce readiness, employer engagement, and continuum alignment & quality indicators.

Learner Pathways

- Focuses on ensuring vertical alignment to workforce needs, robust funding, collaboration across agencies, and equitable access for all students.

Postsecondary Acceleration

- Focuses on streamlining postsecondary learning and empowering high school students to earn credit to reduce the time required to earn postsecondary degrees.

Postsecondary Credential Attainment

- Focuses on reducing barriers—such as funding, lack of alignment, and missed opportunities—to help more students attain postsecondary credentials.

Workforce Readiness

- Focuses on ensuring the skills, credentials, and apprenticeships students pursue to help prepare a strong workforce within the state.

Employer Engagement

- Focuses on incentivizing workforce engagement in student pathways and reducing the barriers that keep employers from participating.

Continuum Alignment & Quality Indicators

- Focuses on the fact that to ensure the strength of all the other policies, there must be cross-sector agreement on outcomes, strategies to get there, and data to track progress.

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Learner Pathways
- Focuses on ensuring vertical alignment to workforce needs, robust funding, collaboration across agencies, and equitable access for all students.

Postsecondary Acceleration
- Focuses on streamlining postsecondary learning and empowering high school students to earn credit to reduce the time required to earn postsecondary degrees.

Postsecondary Credential Attainment
- Focuses on reducing barriers—such as funding, lack of alignment, and missed opportunities—to help more students attain postsecondary credentials.

Workforce Readiness
- Focuses on ensuring the skills, credentials, and apprenticeships students pursue to help prepare a strong workforce within the state.

Employer Engagement
- Focuses on incentivizing workforce engagement in student pathways and reducing the barriers that keep employers from participating.

Continuum Alignment & Quality Indicators
- Focuses on the fact that to ensure the strength of all the other policies, there must be cross-sector agreement on outcomes, strategies to get there, and data to track progress.

REPORT
The Big Blur

AUTHOR: JFF

MAIN IDEA: The Big Blur report argues that states should completely restructure the student experience for students in grades 11 through 14 by creating new institutions that blur the lines between high school, higher education, and the workforce.

Incentives
- Focuses on whether financial incentives, as well as incentives in accountability systems, promote new ways of organizing high school pathways.

Alignment
- Focuses on the degree of coordination between high school leaders and community colleges and whether alignment results in students attaining industry-recognized credentials while also preserving the option to pursue further education.

Governance
- Focuses on empowering a cabinet-level team with decision making authority over approving programs, allocating funding, and ensuring alignment for high school pathways programs.

Staffing
- Focuses on equipping educators and leaders to rethink how they organize learning and work experiences for high school students.

ENDNOTES

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