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Multiple Pathways To Graduation: New Routes to High School Completion

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crpe working paper # 2010_2

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EXECUTIVE SUMMARY

Concerned about the persistently high dropout rates from big-city secondary schools, education leaders are trying a new approach to increasing the graduation rate—multiple pathways to graduation. Leading districts are creating a variety of schooling options designed to remedy the problems that lead many students to drop out, such as failing key courses, interruptions in schooling caused by personal and family problems or transfers from one district or school to another, or delayed entry into high school. Early results, for example from New York City, suggest that creating multiple pathways to graduation might rescue many students who would otherwise have dropped out of school, and measurably increase a city’s overall graduation rate.

Multiple pathways initiatives are relatively new and far from proven. Even the most advanced examples face significant issues, i.e., the need to demonstrate that students who graduate via multiple pathways are as well prepared as graduates from regular high schools.

However, multiple pathways initiatives are clearly a significant new development, using analysis of student data to provide much better targeted remedies to students’ individual problems than were possible in earlier dropout prevention programs. Multiple pathways initiatives also build on some cities’ efforts to re-mission their whole school districts, so that they search constantly for more effective approaches to instruction and change the mix of schools they offer in light of performance.

The Center on Reinventing Public Education (CRPE) undertook this study at the request of the Annie E. Casey Foundation, which hoped an independent review of existing multiple pathways initiatives could be helpful to other districts looking for ways to help students at risk of dropping out. This report is based on interviews with district and foundation leaders and scholars who were among the originators of the multiple pathways idea. The report provides snapshots of different approaches to multiple pathways evident in New York, Portland, Oregon, other Eastern and Midwestern cities, and a California multi-district collaborative.

Findings

We distinguish three different approaches to providing multiple pathways to graduation:

- The **Targeted Population** approach, in which districts use “segmentation” analysis to identify those students at greatest risk of dropping out. Districts then develop new schools or place a variety of special instructional programs within existing schools. Districts continuously assess these schools and programs for their match to current students’ needs and their effectiveness in helping students

graduate, and change the mix of opportunities available in light of the evidence.

- The **District-Wide** approach, in which the district intentionally changes all of its high schools, housing different specialized programs in different schools, to ensure that every student can find one that meets his or her needs. The district continuously updates its segmentation analysis so that school staff can identify students at risk and guide them to the programs that represent the best match for them.
- The **Linked Learning** approach, under which a district re-works its high schools so that all are smaller than before and all integrate Career and Technical Education with an academically rigorous college preparatory curriculum. This approach emphasizes work opportunities, careers aligned with local need, student involvement with career professionals, and realistic real-world projects. At-risk students are therefore educated in the same instructional programs as other students.

This report describes these approaches in detail, provides examples of each, and analyzes what district leaders must do if they want to implement one or another of the approaches. To implement any of the approaches, districts must:

- Be committed to allowing students to choose schools outside their regular attendance areas, to allow matching of student need with school program.
- Have detailed data on individual students' progress through school, and be capable of analyzing data both to identify students most at risk of dropping out and to assess whether students placed in particular schools are making normal progress toward graduation.
- Be able to recruit and assign teachers and administrators flexibly, so that individuals who are trained and motivated to help students at risk of quitting school can be assigned to work with them.
- Have district leaders who are committed to performance-based oversight of schools and support of a diverse set of schools with different needs.
- Be open to incorporating community assets (businesses, museums, nonprofits, and higher education institutions) into schools' instructional programs.
- Have access to philanthropic or other "investment" resources that can support creation of new approaches to schooling and development of non-standard sources of support for diverse, innovative schools.

The report ends with an analysis of how well the different multiple pathways approaches are likely to work in districts with particular characteristics. The analysis is summarized in the table below:

	Easier for districts with:	More difficult for districts with:
Targeted Population	<ul style="list-style-type: none"> •Funds/partner to attain or current data on true student dropout rates and risk factors (segmentation analysis) •An active population of alternative or pilot-type schools used to changing curriculum and direction as needed 	<ul style="list-style-type: none"> •Poor/no initial data on which students are at risk •Difficulty getting current data on student performance
District-Wide	<ul style="list-style-type: none"> •Large number of high schools to create many diverse options •Familiarity with multiple systems of accountability for different types of schools (charters, pilots, public, etc.) 	<ul style="list-style-type: none"> •Limited system of transportation •Single system of accountability, i.e., only using AYP instead of school-specific measures •Entrenched political opposition to major district reforms
Linked Learning	<ul style="list-style-type: none"> •History of quality career and technical schools •Lots of community/professional adult access available •Strongly independent schools able to provide complex services internally 	<ul style="list-style-type: none"> •Large numbers of students already out of school •Schools with high staff and administrative turnover rates

INTRODUCTION

In major cities a new phrase is common in educational circles, “multiple pathways to graduation” (MPG). School leadership conferences, educational publications, and policymakers are starting to pay attention, in the process increasing school districts’ interest in the idea. For guidance, some school leaders have turned to nearby districts, or to a study or a think piece, to understand the concept and how multiple pathways might help their particular district meet the challenges of low graduation rates. The array of answers and different viewpoints is sometimes confusing and frustrating.

However, at their core, MPG districts have a plan for ensuring that their students, including those most likely to fail, make it to high school graduation. This goal is generally accomplished by identifying at-risk students long before they drop out and providing options geared to resolving students’ academic difficulties so they can stay in school and graduate. This approach, which is particularly beneficial for poor and minority students who are least likely to graduate, might also benefit students from more privileged homes who are also struggling to finish high school.

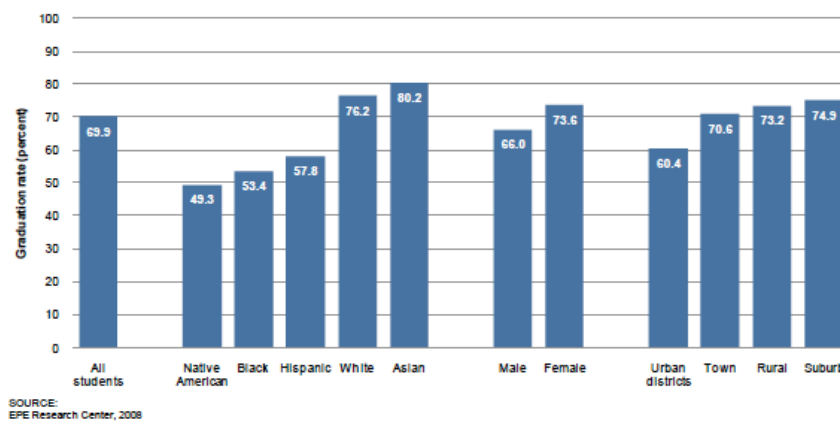
MPG is not a single program, but rather a problem-solving approach that assumes different high school students need to learn in different ways and in different settings. This approach also assumes that the traditional comprehensive high school is not designed to identify threats to students’ graduation, or to intervene in time to preserve students’ opportunities. A given district’s MPG initiative can encompass many different types of schools and programs within schools. Some districts regard MPG as their core strategy for high school education, and hope to apply it in all schools, not just those serving poor and minority students.

At the request of the Annie E. Casey Foundation, the Center on Reinventing Public Education undertook this study to explain the motivation and core ideas behind MPG initiatives in localities that are pursuing them, document any differences in theory and implementation from one locality to another, and analyze the strengths and weaknesses of different approaches. Although some highly informative studies have been done on individual districts, schools, and pathways, this study attempts to bring a broader perspective to national trends within this movement.

The Graduation Crisis

American high schools lose approximately 7,000 dropouts each day, nearly 1.2 million per year, and the graduation rate has been decreasing for at least two decades.¹² Large urban school districts have been aware of the disproportionate role they play in the dropout crisis for decades. While the official national graduation rate hovers somewhere around the 70 percent mark, large urban districts have long yielded rates well below that average.

Figure 1: National High School Graduation Rates, 2003-04



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A 2008 study from America's Promise Alliance showed that 16 of the country's 50 largest cities have graduation rates of less than 50 percent, with Detroit graduating the lowest percentage of students at 24.9 percent. A 2009 report from the Boston nonprofit Jobs For the Future states that 17 states produce nearly 70 percent of all dropouts nationwide. Schools and districts in these states routinely graduate less than 65 percent of their students. Educational researchers suggest that the most commonly used graduation measures do not capture the full extent of the dropout crisis, due to loopholes or alternative classifications for students who have in fact quit school permanently.⁴⁵ (See Appendix 3 for a brief description of differing graduation rate reporting methods, their implications, and list of further reading sources.)

The nation is estimated to lose more than \$26 billion in federal and state income taxes each year due to dropouts' low personal incomes. The 23 million individuals

¹ Pinkus, Lyndsay. (2006). *Who's Counted? Who's Counting? Understanding High School Graduation Rates*. Washington DC: Alliance For Excellent Education.

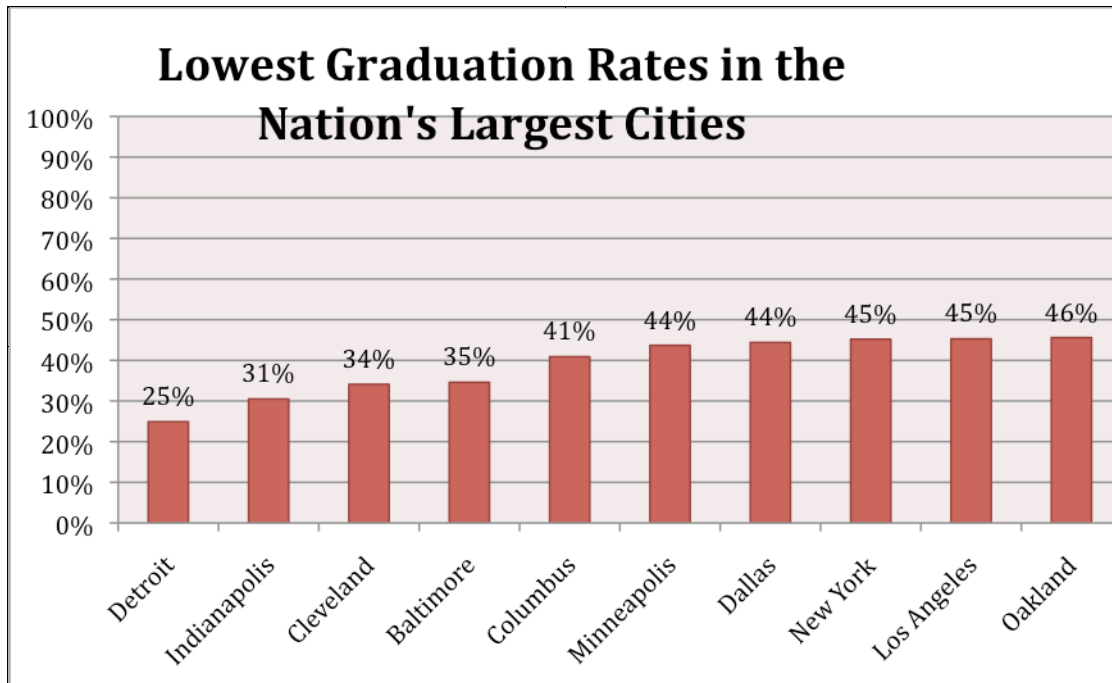
² Heckman, James and Paul LaFontaine. (2008). *The Declining American High School Graduation Rate: Evidence, Sources and Consequences*. Cambridge, MA: National Bureau of Economic Research.

³ Swanson, Christopher (2008). *Cities in Crisis: A Special Analytic Report on High School Graduation*. Bethesda, MD: America's Promise Alliance, Bill & Melinda Gates Foundation, and Editorial Projects in Education Research Center.

⁴ Wise, Bob. (2007). *Detroit Has Worst High School Graduation Rate*. Interview on NPR. June 29. <http://www.npr.org/templates/story/story.php?storyId=11601692>

⁵ Pinkus. (2006). *Who's Counted?*

who have quit school before graduating are estimated to lose over \$300 billion in annual income.⁶ Dropouts have higher rates of unemployment and higher risk of teen parenthood, and are more likely to go to prison than students who complete high school.⁷



Source: This information is drawn from Swanson’s *Cities in Crisis* report, reporting true graduation rates in the 50 largest cities in the United States. The graph above reflects the 10 lowest-performing cities in the study, each of which have less than 50 percent graduation rate.⁸

Students are leaving high school unprepared, not only for college, but for work and life skills as well. A recent report issued by a nonprofit governed by retired military leaders found that 75 percent of Pennsylvania’s young adults were not eligible for service in the military. These former top military leaders concluded that the deficit of essential skills and knowledge of these young people for life can only be remedied by changing and enhancing educational options available to these students.⁹

On top of the long-term economic and social impacts of losing nearly half their students, school districts are being squeezed financially by the loss of enrollment-based funding.

Segmentation Analysis, The Root of the Idea

⁶ Alliance for Excellent Education. (2009.) About the Crisis Fact Sheet. At http://www.all4ed.org/about_the_crisis.

⁷ Monrad, Maggie. (2007.) *High School Dropouts: A Quick Stats Fact Sheet*. The National High School Center, American Institute of Research.

⁸ Swanson. (2008). *Cities in Crisis*.

⁹ Mission: Readiness. (2009.) *Ready, Willing and Unable to Serve. 75 Percent of Young Adults Cannot Join the Military: Early Ed in Pennsylvania is Needed to Ensure National Security*. Washington, DC.

It was in this context of increasing dropout rates and resulting pressure on districts that researchers developed a more accurate way to identify students at risk of quitting school, and to understand the events that lead them to drop out. Segmentation, or mortality, analysis follows individual students from the time they enroll in high school to the time they drop out or graduate. It compares students who quit with those who stay in school and asks what personal attributes or experiences make a student likely to drop out.

These analyses, which have now been done for many urban districts, consistently show that students are much more likely to drop out at the end of a school year than at any other time, usually when it has become clear to a student that he or she will not be able to graduate on time.¹⁰ The decision to drop out often comes many months after an event—failing a required class, a sustained absence from school, transferring from one school to another—that puts a student off track to graduate. Some personal attributes, especially entering high school one or more years older than the average ninth grader, also mark a student as at risk.

The long gap in time between the precursor event (including entering school overage) and quitting school suggests that schools have opportunities to remedy problems before students give up—helping reverse a course failure or make up material missed during a long absence, offering special help to an overage student, or helping transfer students become oriented to their new school. However, only a few regular high schools track the precursor events or intervene quickly to put students back on track.

Segmentation analyses done in Portland, New York, Chicago, and other cities gave educators and city leaders new insights into the causes of student failure, and showed how poorly equipped regular neighborhood high schools were to help students at risk.¹¹ Multiple Pathways to Graduation is a result. MPG initiatives use the results of segmentation analysis to identify individuals at risk and create academic programs designed to remedy the specific problem that is likely to lead a student to drop out.

Program differentiation is nothing new in public education—after all, comprehensive high schools were designed to offer something for everyone.

¹⁰ See, for example, Celio, Mary Beth and Lois Leveen. (2007.) *The Fourth R: New Research Shows Which Academic Indicators Are the Best Predictors of High School Graduation— And What Interventions Can Help More Kids Graduate*. Northwest Decision Resources.

¹¹ See, for example, Roderick, Melissa, Grade Retention and School Dropout: Investigating the Association, *American Educational Research Journal* (1994); 31: 729-759; Cahill, M., Lynch, J., and Hamilton, L. (2006). *Multiple Pathways Research And Development: Summary Findings And Strategic Solutions For Overage, Under-Credited Youth*. New York, NY: Office of Multiple Pathways to Graduation, schools.nyc.gov/Offices/DYD/OMP/default.htm; and Allensworth, E., and Easton, J. (2007). *What Matters for Staying On-Track and Graduating in Chicago Public Schools*. Chicago, IL: Consortium on Chicago School Research at the University of Chicago.

However, many comprehensive schools became dropout factories because no one was responsible to act when a student fell behind.¹² But districts pursuing Multiple Pathways to Graduation do three things that comprehensive high schools were not designed to do: They identify students at risk, ensure that counselors and teachers act quickly before students conclude that they are unlikely to graduate, and create instructional programs to remedy students' problems and put them back on track to graduate. MPG can be seen as an evolution of the alternative schools movement, enhanced by the use of segmentation analyses and better-informed efforts to match students to programs that meet their individual needs.¹³

¹² See, for example, Cuban, Larry. *Larry Cuban on School Reform and Classroom Practice, Part 3: High School Reform Again, Again, and Again*, <http://larrycuban.wordpress.com/Larry>, downloaded May 15, 2010.

¹³ On alternative schools see Raywid, M. A. (1999). History and issues of alternative schools. *The Education Digest*, 64, 47–51.

FINDINGS

This report is based on interviews in five school districts participating in a collaborative organized by Jobs For the Future, and with nonprofit leaders in California. Our informants were some of the first to develop and implement MPG. We also interviewed leading researchers, school officials, and community partners in some of the first districts to implement MPG. Snapshots of different approaches to MPG are provided to help illustrate some of the major concepts and themes.

Briefly, our major findings are:

- Districts operating MPG do so in one of three different ways. In this report they are referred to as Targeted Population, District-Wide, and Linked Learning (each defined below).
- MPG districts have seen some improvement in graduation rates and some have had success in putting out-of-school youth back on track to graduate.
- The MPG “movement” is bringing a new intent and set of tools to the effort to raise high school persistence and graduation.
- Districts wishing to implement MPG need to put some basic structural elements in place before moving ahead. Districts hoping to make MPG their core strategy for providing high school education need to adopt a flexible evidence-driven approach to school oversight, one that is typical in “portfolio districts.”¹⁴

Three Approaches to MPG

Although seeking a common goal of increased graduation rates, districts have followed three different approaches in creating multiple pathways to graduation:

1. *Targeted Population multiple pathways*

Under this approach, districts use segmentation analysis to identify students at risk of dropping out. Based on the segmentation analysis, districts develop a variety of special schools or special instructional programs placed within existing schools. Districts continuously assess these schools and programs for their match to current

¹⁴ A “portfolio school district” is a broad term based on a simple set of ideas—a district that provides schools in many ways—including traditional direct operation, semi-autonomous schools created by the district, and chartering or contracting to independent parties—but holds all schools, no matter how they are run, accountable for performance. In a portfolio district, schools are not assumed to be permanent, but contingent: schools in which students do not learn enough to prepare for higher education and remunerative careers are transformed or replaced. A portfolio district is built for continuous improvement via expansion and imitation of the highest-performing schools, closure and replacement of the lowest-performing, and constant search for new ideas. See Hill, Paul T., Christine Campbell et al. (2009). *Portfolio Districts for Big Cities: An Interim Report*. Seattle, WA: Center on Reinventing Public Education.

students' needs and their effectiveness in helping student graduate, and change the mix of opportunities available in light of the evidence.

**Targeted Population Case Study:
New York City Office of Multiple Pathways**

2009 Snapshot—1.1 million students; 80,000 staff; 429 high schools; \$11,600 per pupil allocation¹⁵

The multiple pathways philosophy has been evolving for several years in the complex New York City public schools. As the largest district in the country, the number of dropouts in New York is equal to the whole student population of many mid-sized school districts, forcing the city to create a large-scale solution for the problem.¹⁶ New York City has an unrivaled political champion in Mayor Bloomberg, who has made the increased graduation a talking point in subsequent campaigns. New York also benefits from the assistance of many nonprofits and community-based organizations (CBOs) for both school-level and general political support.

The Office of Multiple Pathways to Gradation (OMPG) has served the district since 2005 by coordinating several categories of schools and programs in an effort to significantly raise the graduation rate. Other key goals of OMPG are expanding connections to college (dual enrollment or bridging programs) and career opportunities (incorporated in the Learning to Work Initiative) for overage and under-credited high school students. OMPG manages a portfolio of several types of schools, from Young Adult Borough Centers, Transfer Schools, and both full- and part-time GED completion programs. All OMPG schools strive to incorporate the Framework for Effective Instruction learning model, emphasizing hands-on practice and real-life application of new skills. MPG approaches to student screening and remedy, coupled with continued creation of small, specialized schools, are seeping into all New York City high schools.

The Targeted Population approach focuses exclusively on serving those students statistically unlikely to graduate in a handful of specialized schools develop to meet their academic, social, and career needs.

Unique to NYC

- “Transfer Schools”: small, academically rigorous schools for students who are overage and under credited, or who have already dropped out of school
- Young Adult Borough Centers: primarily after hours (3 pm-9 pm) schools that work to accommodate working teens
- Referral Centers: neighborhood centers where truant, disconnected, or out-of-school youth can speak with counselors and search for a school that matches their needs and abilities
- Learning To Work: an in-depth job readiness, career exploration, and academic support service program wrapped into several Young Adult Borough Centers and Transfer Schools

¹⁵ All district information found on district websites and the Institute of Education Sciences Core of Common Data, unless otherwise noted.

¹⁶ Based on NYC Citywide Graduation Totals 2001-2005, available online at <http://schools.nyc.gov/Accountability/DOEData/GraduationDropoutReports/default.htm>.

2. District-Wide multiple pathways

This approach also starts with segmentation analysis. However, instead of tailoring particular schools to the needs of at-risk student needs, the district intentionally diversifies all schools throughout the district, creating many specialized programs to ensure that every high school student can find one that meets his or her needs. The district continuously updates its segmentation analysis so that school staff can identify students at risk and guide them to the programs that represent the best match for them.

District-Wide Case Study: Portland Public Schools Education Options

2009 Snapshot—46,000 students; 7,000 staff; 15 high schools; \$10,500 per pupil allocation

Portland Public Schools has a long history with community-based organizations (CBOs) running schools alongside traditional public schools and charter schools. When a segmentation analysis revealed that nearly 50 percent of its youth did not graduate, mayor Sam Adams made increasing the graduation rate a significant part of his campaign platform. With the help of the Portland Schools Foundation, the schools have built a community coalition of supporters who have stood by the district throughout difficult changes.

Portland's office of Education Options manages a portfolio of different schools and school types, and is now operating a Transition Center to match students with the school across the whole district that best fits their needs and interests. Schools vary by hours offered, curriculum type, and focus. The district has adopted a universal matrix by which to measure school performance, highly valuing graduation and post-secondary readiness.

Unique to Portland

- Transition Center: provides counseling to help match students with the best school in the district for their needs, but also employs teachers to provide immediate re-engagement should entering the school take time
- Community-Based Organization Schools: often based around neighborhood or culturally specific organizations, these schools often provide career training or placement as well as academic preparation
- Dart Schools: provide high-level academic preparation to highly mobile students living under state guardianship

3. Linked Learning multiple pathways

This approach is inspired by the segmentation analysis but does not use it extensively. Instead, the district re-works its high schools so that all are smaller than before and all integrate Career and Technical Education with an academically

rigorous college preparatory curriculum.¹⁷ This approach emphasizes work opportunities, careers aligned with local need, student involvement from career professionals, and realistic on- and off-campus projects, such as designing a building or diagnosing a disease.¹⁸ At-risk students are therefore educated in the same instructional programs as other students. Designed to avoid “tracking” of disadvantaged students, this approach invests a great deal in redesign of high schools but is less able to create multiple new options quickly to meet emergent needs.

Linked Learning Case Study:

Sacramento City Unified School District’s Multiple Pathways to Success

2009 Snapshot—48,500 students; 6,000 staff; 15 high schools; \$11,200 per pupil allocation

Sacramento City Unified School District was one of the original Irvine Foundation grantees in the California iteration of multiple pathways (recently renamed Linked Learning to avoid confusion with other approaches). Linked Learning schools are set in the context of one of California’s 15 major industry sectors, such as business and finance, building and environmental design, biomedical and health sciences, engineering, information technology, manufacturing, or arts, media, and entertainment.

Linked Learning schools involve internships, mentors, and relevant and rigorous hands-on learning for each student. The district uses charter and alternative schools to employ the mixed Career and Technical Education and college-bound academic model.

Example schools in Sacramento City

- Arthur A. Benjamin Health Professions School
- George Washington Carver School of Arts and Science
- Sacramento New Technology High School
- School of Engineering and Sciences
- The Met Sacramento High School (a Big Picture Company school)

The Three Approaches in Practice

Although the three approaches can be distinguished neatly in theory, in reality distinctions are less clear. Districts can start out using one approach (e.g., the Targeted Population) but move (as New York has done) to using segmentation analysis in all their high schools and systematically replacing large comprehensive high schools with greater numbers of smaller schools, each pursuing a distinctive approach to instruction and student life.

¹⁷ From The Irvine Foundation’s website on Linked Learning.

¹⁸ Career and Technical Education has also been called vocational education and has gone through much iteration. This has traditionally been a completely separate track from academic college preparation, assigned to students who have been evaluated to be unable to complete the academic track.

The Linked Learning approach is the most easily distinctive of the three, particularly in practice, as it exists only in California and as a result of a single initiative by one foundation.¹⁹

The Targeted Population approach is the most popular among implementing districts across the country, especially in urban East Coast districts. The District-Wide approach is seen primarily in Portland Public Schools, though as mentioned above, many Targeted Population districts are expanding their range of multiple pathways schools toward creating a portfolio of high schools based on multiple pathways. In the future, the Targeted Population approach might prove to be simply the first step toward district-wide multiple pathways.

	Targeted Population	District-Wide	Linked Learning
New York City	X	X	
Chicago Public Schools	X		
Philadelphia Public Schools	X		
Boston Public Schools	X		
Portland Public Schools		X	
10 CA districts supported by Irvine Foundation			X

What Is Common Among all Three Approaches

The three different approaches have a basic common goal: increase graduation rates. In addition, other aspects can be grouped into structural similarities, similar benefits, and similar challenges. These similarities in approaches help highlight the core aspects that all multiple pathways programs share.

MPG programs have been implemented in a range of districts, from those with several thousand to over a million students, with gigantic to relatively modest budgets, with varying political and community climates, and facing broadly diverse student groups. Moreover, some multiple pathways programs are well established

¹⁹ The Linked Learning approach is laid out clearly in Oakes, Jeannie and Marisa Saunders, eds. *Beyond Tracking: Multiple Pathways to College, Career and Civic Participation* (2008), Harvard Education Press. This approach developed primarily as a response to the negative impacts seen from tracking students into schools based on ability, severely limiting the career and future options for those students excluded from college preparatory tracks.

and others are just emerging. However, some core elements of multiple pathways are evident across all districts.

- Student choice

A key element in all multiple pathways programs is a district policy of student choice. In a district where students and families have an opportunity to select their school instead of being assigned based on zoning, fitting students to uniquely different schools is an easier transition. Those districts that have a system that allows students to choose their schools tend to have administrations that are prepared for resulting enrollment fluctuations, specialized schools, and transportation questions. A multiple pathways philosophy goes beyond the passive model of school choice, focusing on actively matching students with the school that best fits their interests, schedule, and academic needs.

Here it must be said that it is difficult to conceive that very small districts would be able to implement any approach to multiple pathways easily, as by definition it requires multiple schools or programs. Large urban districts have been on the forefront of implementing multiple pathways schools primarily because they have a large number of high schools with which to experiment and diversify.

- Data

Also central to operating a multiple pathways program is strong use of student data. For districts to adequately serve the student population at risk of dropping out, they must first know specifically who is in that group and exactly what their needs are.

The data must at minimum be able to identify which students are on track for graduation (often measured by completion of core courses or number of credit per year) and those who are at risk for falling behind or dropping out (may also be referred to as at-risk, potential dropout, or overage and under credited). Building schools for English language learners who have gotten behind is much different than building schools for students who are truant due to a work schedule or family concerns, which might in turn look different than schools serving groups with both characteristics. Knowing how many students are at risk and in which ways they are deficient gives the district a clear picture of how to proceed—which classes to provide remediation for, what specialties to look for in faculty serving these students, and perhaps even which neighborhood will be the closest to most students with a particular need.

Initial student data is crucial, but perhaps no more so than day-to-day reports on how the students are faring in multiple pathways schools. Especially in large school districts, student populations change even yearly. To maintain an effective multiple pathways program, districts must keep up

with the needs of their student populations and continue to adapt the existing and new schools to those needs.

- Staff flexibility
One district administrator spoke of the change this requires in hiring for multiple pathways schools. As multiple pathways schools tend to be smaller and with fewer staff, the teachers and administrators that are on hand need to be flexible and able to accommodate changing student needs year to year. Instead of looking for the strongest possible English teacher available, a principal in a multiple pathways school might be better off looking for a teacher that may not be an expert at one type of instruction, but can quickly learn to teach a variety of classes depending on current students' needs.
- District operating environment
All MPG approaches require district organization that provides support for multiple kinds of high schools. In some districts these environments are permissive (i.e., multiple pathways schools can differ from one another and from the comprehensive high school "mainstream"), but they are still viewed as exceptions. District MPG administrators often struggle to get needed support from district bureaucracies and school oversight can be "siloed," with one unit supervising comprehensive high schools, others responsible for magnets, and still another responsible for multiple pathways. In those situations funding, support, access to facilities, and performance assessment are messy and under constant redefinition.

Portfolio districts, designed to oversee diverse schools at all levels, are likely to be more friendly environments for MPG initiatives. New York is trying to integrate all performance oversight via a "portfolio management" function performed by the deputy Chancellor.²⁰ This function makes the top leaders of the district responsible for assessing school performance, identifying unmet needs, and creating new schools and programs for groups of students whom current schools are not serving well. As Hill and Lake suggest, management of a diverse set of schools, including many offering distinctive pathways to graduation, has become the district's core management function. Other functions (e.g., professional development, curriculum and instruction, and assessment) are subsumed within portfolio management.

In an effort to provide more flexible and tailor-made support to all schools, New York and New Orleans are drastically reducing dependence on central bureaucracies in favor of independent support organizations funded by voluntary school fees. In this environment, schools have many options for

²⁰ On how districts integrate management of diverse schools, see Lake, Robin, and Paul Hill. (2009). *Performance Management in Portfolio School Districts*. Seattle, WA: Center on Reinventing Public Education.

sources of assistance, and support organizations have financial incentives to meet MPG schools' needs.

- More than “just” school

A majority of the multiple pathways districts have included aspects of youth development that don't typically fall to schools: job training and placement, and social support services. As the students that MPG schools are designed to help often have problems outside school preventing graduation, more than traditional academic curriculum is needed to overcome those problems. It is not uncommon to find that these schools have incorporated outside programs into the academic program, such as a life skills class that also emphasizes math or writing skills, or job preparation and placement that hones academic skills needed in that workplace. Some programs also include college bridging or dual credit programs,²¹ allowing these students to more easily transition across the gap where many at-risk students are lost.

These programs are seen as crucial to connecting students to something outside the four walls of a high school, giving their academic preparation meaning in the outside world. Students have a more tangible, immediate understanding of how their classes will apply beyond graduation.

- External supporters

A final element of multiple pathways programs is a partnership with at least one strong supporter outside the school district for programmatic and political support. These supporters have ranged from community collaboratives and jobs councils to not-for-profit organizations and philanthropic organizations and even political leaders. On the ground level, some partners were essential in building capacity for diverse schools and assisting with job training and placement.

In each of the districts evaluated, an entity outside the school district was also essential in helping leverage high-level change. While funding is definitely a crucial partnership function in districts undergoing such changes, other non-financial aspects were noted to be just as essential. Often, these outside groups provide politically neutral space and time for the administration to speak periodically with business members, policymakers, or community leaders who have different experience, viewpoints, and social capital networks.

In many places, these outside partners have been key for public support (particularly when school policies must be voted on) and have allowed those outside the district to feel shared ownership of a crisis that affects the entire community. In several cases, mayoral candidates have made increasing the

²¹ Dual enrollment and college bridging courses allow students to complete college-level credits while still in high school.

graduation rate a part of their campaign platform, increasing both community awareness and support for the issue. Sometimes publicizing the true graduation rate found in segmentation analyses has been catalytic enough to break political deadlock preventing drastic changes to school policy and allow reform a chance where it previously would have had none.

It is worthwhile to note that while a district could display all these characteristics without implementing a multiple pathways initiative, they appear to be threshold requirements for mounting a multiple pathways strategy.

Key Differences Among the Three Approaches

The three approaches operate differently and offer different opportunities to at-risk students. The chart below summarizes the key differences.

	Unique Benefits	Unique Challenges
Targeted Population	<ul style="list-style-type: none"> •Focuses resources and expertise on students with the highest risk of dropping out. 	<ul style="list-style-type: none"> •Ensuring that all at-risk students are identified and assisted. •Essentially tracks students into traditional and alternative schooling, risks detriments associated with alternative schooling, tracking by ability.
District-Wide	<ul style="list-style-type: none"> •Smoother ‘continuum of care’ for students who are slightly behind to far behind and have dropped out. •Ideally all students from dropout to gifted will flourish because of the variety of schools available. 	<ul style="list-style-type: none"> •Requires lots of resources to monitor and assist all students who need even some help.
Linked Learning	<ul style="list-style-type: none"> •Could be superior prevention model, given use of non-academic teaching methods and links to work. 	<ul style="list-style-type: none"> •Requires very agile, independent schools with lots of adult involvement. •Provides little recuperation (reclamation) for students already out of school.

Targeted Population multiple pathways approaches:

- Identifying at risk students
In the Targeted Population approach, the crucial aspect that differs from the others is the identification and separation of at-risk students. Districts may define their Targeted Population differently, but common criteria are students who are overage for grade, behind in credit accumulation for their age, are chronically truant, or fulfill known risk factors such as failing key

classes in 9th grade. These students are identified in a variety of ways, from self-identification (such as by contacting a reassignment office), counselor or teacher suggestions, or data sweep (for example, physically tracking down all known truant or dropout students). After at-risk students are identified, they are given suggestions and/or options of which schools would best fit their interests, abilities, and needs, and are transitioned accordingly.

- Multiple cohorts

Targeted Populations multiple pathways effectively set up two cohorts of schooling—those in multiple pathways schools, and those in comprehensive or “regular” schools. Students may move from one cohort to the other depending on how often and how accurately the data are assessed.

District-Wide multiple pathways approaches:

- Whole district redesign

The key identifier of a District-Wide multiple pathways approach is the redesign of all the district’s high schools to create a true diversity of options that will accommodate (in theory) the needs of every student, from the highest gifted to farthest behind dropout.

- All students use same choice methods

The key difference between District-Wide and Targeted Population approaches is the focus on all vs. only at-risk students opting into multiple pathway schools. The District-Wide approach does not differentiate between at-risk and on-track students when it comes to school choice, and there is a less visible divide between the groups.

Linked Learning multiple pathways approaches:

- Each school redesigned around one model

Multiple pathways districts utilizing this approach are recognizable for creating a segment of schools all based around variations of a central model. These schools may have very different themes but are all project-based, hands-on, with a high degree of career readiness infused in the academic curriculum.

- High- and low-performing students in same building

Linked Learning schools emphasize specifically **not** separating students into high- and low-performance groups. Instead the approach focuses on a single school providing educational tools accessible to all students, and letting them choose how to apply those tools. For example, a Linked Learning school offers both practical and high-level math and science skills, eventually graduating a future construction technician and a future engineer.

These differences accentuate the variation in each approach's design. Following are the impacts that these structural differences have on the benefits attained and challenges presented by each approach.

It is difficult to objectively rank a particular model as "best" or "worst" for all situations. Each of the models offers a unique best-case scenario, which might be an indicator for a particular district about which approach best fits its circumstances. For example, for a district with limited resources and a clearly defined population of at-risk students, a Targeted Population approach would be the easiest structure to adopt. By adopting the Targeted Population approach, this district would be able to spend their limited funds on a group of students they know most need assistance to graduate.

Conversely, districts interested in multiple pathways should also carefully evaluate the challenges posed by each approach before deciding which to pursue. A district that struggles to involve adults other than regular school staff and has a large out-of-school youth population might falter while implementing a Linked Learning approach and fare better with Targeted Population. This district would likely find creating true Linked Learning schools difficult without sufficient adult supports and might benefit more from creating a range of schools that fit their at-risk students, including a few schools catering specifically to out-of-school youth.

ANALYSIS

Multiple pathways initiatives offer new hope for children once apparently doomed to living without a respectable high school credential. The section immediately below summarizes the apparent benefits of MPG.

However, multiple pathways initiatives also face real challenges, some common and some associated with one approach but not the others. For multiple pathways districts to continue making strides in helping at-risk students to school completion, these challenges must be overcome. The latter half of this section summarizes these challenges.

Observed Benefits

All of the multiple pathways districts have seen a number of similar benefits.

- Data: More, better, faster

In the age of *No Child Left Behind* and *Race to the Top*, evaluation is becoming more and more crucial in the educational sphere. Districts pursuing a multiple pathways philosophy must undertake a segmentation analysis as well as revamp their structure for ongoing student evaluation data.

Understanding more clearly where students are and what they need to graduate allows districts to more efficiently get the needed services to the students. More accurate data that promotes faster response to threats to a student's graduation is advantageous to both the school and student—the student can more quickly move on to college or a career, and the school cuts down dropouts and saves the time and money spent should the student continue to flounder through the system.

- (Partial) mission accomplished

Each of the districts referenced showed some increase in graduation rates. While each district quantified the gains differently, there is proof that multiple pathways programs led to an increase in graduation and helped reclaim students who had been out of school.

Fast Facts

New York: Underage and over-credited students graduate at a 19 percent rate in comprehensive high schools, but 56 percent in multiple pathways schools through 2009

Boston: 100 at-risk students graduated through accelerated summer 2008 program

Portland: Decreased cohort dropout rate from 13 percent to 9 percent in 2007-2008

- An evolution of intent

Although disputes about measurement still allow some districts to avoid hard discussions about the dropout crisis, the multiple pathways movement is pushing districts to look critically at their dropout rates—for all students,

not just the disadvantaged, and search for solutions. While this might seem minor, the change from not thinking about the stream of dropouts to actively considering how to re-engage them can be enough to change the schooling experience of thousands of students for the better. The new buzz around multiple pathways has also begun to create and standardize a language for discussing the problems around dropping out and low graduation rates, allowing districts and policymakers to more easily communicate about national trends. Sometimes for the first time, districts of unequal size are sitting down together to talk about strategies for recovering dropout students and comparing effectiveness of reform strategies.

Evolved intent and better data are benefits derived from the structure of creating multiple pathways programs, but this hardly diminishes the positive effect they have in creating the third benefit—higher graduation rates.

Matching Approaches to Districts

Each of these three approaches offers something different to districts interested in a powerful new approach to their dropout and at-risk population, and each has different costs and benefits. Districts interested in implementing a multiple pathways philosophy should carefully weigh what structures and practices they have in place, what benefits they are looking to reap, and what changes are likely within their political context and community before deciding which approach to implement.

The chart below diagrams which characteristics would be most suited toward adopting each approach to multiple pathways. While many characteristics listed apply in some way to all approaches, they are most applicable in the particular method listed (for example, all approaches would benefit from a segmentation analysis, but it is an essential element in operating a Targeted Population approach to multiple pathways).

	Easier for districts with:	More difficult for districts with:
Targeted Population	<ul style="list-style-type: none"> •Funds/partner to attain or current data on true student dropout rates and risk factors (segmentation analysis) •An active population of alternative or pilot-type schools used to changing curriculum and direction as needed 	<ul style="list-style-type: none"> •Poor/no initial data on which students are at risk •Difficulty getting current data on student performance
District-Wide	<ul style="list-style-type: none"> •Large number of high schools to create many diverse options •Familiarity with multiple systems of accountability for different types of schools (charters, pilots, public, etc.) 	<ul style="list-style-type: none"> •Limited system of transportation •Single system of accountability, i.e., only using AYP instead of school-specific measures •Entrenched political opposition to major district reforms
Linked Learning	<ul style="list-style-type: none"> •History of quality CTE schools •Lots of community/professional adult access available •Strongly independent schools able to provide complex services internally 	<ul style="list-style-type: none"> •Large numbers of students already out of school •Schools with high staff and administrative turnover rates

Challenges Remaining

- Inconsistent standards

One of the benefits of having many school districts following a common philosophy is the ability to compare methods and results. One barrier to making a true comparison among districts is the lack of standardized measurements. While some districts measure their success in multi-year cohort graduation increase, others look for dropout recovery numbers, others for percent increase in yearly attendance, and so forth. By adopting a standardized panel of measurements, these districts could more easily compare which practices are successful within their districts.²² A suggested dashboard of indicators follows in Appendix 2.

²² It should not be overlooked that variations in district size, design, community climate, and other factors still make it difficult to make direct comparisons despite using identical measures. However, good should not be the enemy of perfect in this case, and a standardized system of measurement could significantly improve understanding of the effectiveness of MPG programs.

Another challenge has resulted from districts allowing different graduation standards for MPG schools, suggesting that MPG students may not have attained an equal level of academic preparation. In this challenge New York City has been a pioneer, this year requiring all students across multiple pathways schools to attain the standard of the Regents Exam for graduation. New York's move is bold, asserting that regardless what type of school a student goes to, they must reach a minimum level before being discharged into the world. Other districts range in their standards for multiple pathways schools, prompting queries about the value of a multiple pathways degree and its difference from a GED or alternative school diploma.

The range of standards is of great concern to policymakers and community members worried that multiple pathways language may cloak another version of tracking—separating the “able” from “special” students and requiring different standards from each group. If at-risk students are not being pushed to their potential, the diploma they earn does not mean they have attained a level of understanding sufficient to operate in college or the workplace, but merely pushes them out of the school district and off the dropout statistics.

- Political and community support

A multiple pathways approach requires districts, teachers, school boards, and students to operate and spend money in new ways. This can produce resistance, both at the start and throughout implementation as challenges are discovered and dealt with. Providing continuing support can be difficult for funders and supporters, particularly when results are not quickly apparent, experiments fail, and the public demands immediate, tangible success. As challenges emerge, many districts struggle to retain the support necessary to keep multiple pathways programs agile and responsive.

- Costs

Although there is some disagreement on how crucial a role funding plays in a successful MPG district, up-front funding to develop schools and build district oversight and support capacities is necessary. Though we were not able to document school operating costs in any detail, most informants agreed that multiple pathways schools cost more than regular comprehensive schools. These costs might not exceed the amounts now spent on alternative schools. In a district using weighted-student funding, students identified as at-risk of dropping out could be assigned extra weight. However, our informants for this study argued that pursuing a program that increases graduation rates can increase district funding by preventing costly enrollment losses.

Nearly all districts have had to obtain initial startup costs externally, from philanthropy or special appropriations, though some have been able to sustain operation over the years solely by redistributing per-pupil funds currently within the system. Each of the districts implementing Linked Learning programs in California was seeded with a \$1M Irvine Foundation grant, and many of the other districts similarly found external donors for startup costs.

Likewise, opening new (and more) smaller schools, developing or purchasing new curriculum and technology, ensuring teachers are trained to deliver new curriculum, and realizing the administrative overhead needed to monitor all these pieces presents a significant financial challenge. Research on the full operating costs of multiple pathways schools would clarify these issues,

- Data

Although multiple pathways have prompted new collection and use of data, respondents generally agreed that the current levels of data were merely sufficient and in a perfect world they would have significantly more, better, and more current data linking students, their teachers, and instructional programs, and multiple outcome measures including test scores, course passing, and attendance, and ultimately graduation, type of diploma, and college enrollment. The more and better data available, the more agile and responsive districts are able to be.

- Teaching quality

Multiple pathways schools are generally new and purpose-built, but they often rely on many of the same teachers who would have worked in comprehensive high schools. Moving those same teachers to new schools does not magically change their practice or the results for students. Particularly because multiple pathways schools serve students who are behind grade level and likely facing issues outside school, it stands to reason that the teachers in these schools need to be competent and specially prepared in order to guide these students to graduation on an accelerated schedule. Some districts using multiple pathways have turned their attention to the issues of matching teacher quality to new schools, but most still want to do more to ensure that multiple pathways schools have high-quality teachers.

As noted above, it is still an open question whether diplomas provided by MPG programs signify that students have the skills to succeed in college or careers. New York and a few other districts are working to improve the quality of teachers available to at-risk students, and to continuously improve MPG programs so that students who gain the credits needed for graduation are also prepared to succeed in the world after high school.

- Keeping up with need

In a system dependent on choice, one of the main concerns is having enough alternative placements to meet students' needs and avoid forced placement in second- or third-best options. For logistical and financial reasons, most districts have had to begin with a few pathways and add more as time and capacity permit. Though it is hard to envision another way to proceed, this means that as MPG initiatives scale up, some students who need assistance might not have an option that meets their needs.

- Managing student placement

An additional question is that of choice and screening. Multiple methods exist (even within a single district) of how students arrive in a multiple pathways school, from being recommended by counselors, called by truant officers, or responding to advertisement or word of mouth. This haphazard set of methods could miss some students; few district leaders are sure that all the students who would benefit from multiple pathways are correctly informed about them. In some districts, a central placement office exists to identify students who are falling behind, reach out to them, and help them choose and gain access to a suitable option. Well-publicized portfolio management and student tracking offices are key resources for students who could benefit from multiple pathways schools.

These challenges pose formidable hurdles to multiple pathways districts. However, many districts have accepted these challenges, viewing progress as an endurance race inching closer to attaining success in these areas.

Conclusion

This approach to educating the most endangered student population is new and still evolving. However, it is clear that it systematically takes into account the unique barriers keeping a sizeable portion of the student population from graduating. This approach equips these most challenged students with career and life skills, tailored instruction, and a choice in their education.

When asked, most interviewees pointed to New York as the district that has multiple pathways figured out. However, one of the key leaders in New York responded, “We’re not ‘there,’ there is no ‘there.’ We all just keep trying and working toward a better day for these students.”²³

MPG districts face many uncertainties. Can these districts maintain political support? Can they manage the costs involved? How will they, and their political critics and supporters, respond if more accurate measures show that MPG schools have lower graduation standards? Would that be insignificant if MPG students are still able to attain college entrance or gainful employment?

While it may not be a philosophy that can be easily packaged and sent out to others, multiple pathways has a unique and valuable way of improving student education for the students most often left out.

²³ Interview with Leah Hamilton, Program Officer at Carnegie Corporation of New York.

Appendix 1: Interview Questions

These questions formed the framework for conversation with each of the interviewees. However, the varied knowledge and experience of each of the interviewees led to an organic conversation based upon these questions but often probing the specific information relevant to this study.

- 1. Date/year of start MPG program in district, any previous names***
- 2. Why is MPG happening in your district? Where was the initial push?***
 - a. Key events
 - b. Key people/groups (political, community, government)
- 3. What does Multiple Pathways to Graduation mean, in the broadest sense? Do you think all districts define it similarly?***
 - a. If differences, what? (why?)
- 4. What individuals or groups have been involved in shaping MPG in this district? Are funders also involved in programming?***
 - a. Could this be done without outside funding?
- 5. What range of programs do you offer now? How are they housed and operated? Has MPG led to innovative programs?**
 - a. Is the program adaptive to individual needs or does it follow a set course?
 - b. Can a student's progress/path be changed midstream, or do they have to complete a certain series of steps?
- 6. What are the superintendent/board's expectations for an MPG program? Public expectations? Student/parent expectations?***
 - a. Raise graduation rate? Increase college attendance/completion?
Increase employability? Get all kids back into regular schools?
 - b. Do different parties expect different things of MPG programs?
 - c. What was this program primarily designed to do?
- 7. What are multiple pathway programs accountable for?**
- 8. How is the program different from a GED, vocational ed., or dropout recovery program?***

- 9. How many kids are in them, how are they referred, and what do you do when a student is referred?***
 - a. How did you use the segmentation analysis to decide what programs to offer and how to match kids to them?
 - b. How many students referred per year? Growing/shrinking enrollment?
- 10. What data do you use to assess performance of individual pathways and the MPG initiative overall? ***
 - a. Are students benefitting from MPG? How do you know?
- 11. Are you aware of other programs like this?**
 - a. Are you modeling your program after others or sharing information?
 - b. Similarities/differences?
- 12. How will you know whether the set of pathways offered is the right one or whether you need to continue experimenting with different approaches?**
- 13. Do you think you know what kind of program fits a particular need or are you in the experimental phase? What sorts of experiments might you do next?**
- 14. Are pathways themselves using segmentation analysis for their kids or do they just offer a standard program that fits the needs of kids with common needs?**
- 15. What is a student's experience like in a MPG program? Does it differ from traditional schools and other at-risk youth targeting programs?**
 - a. Is the emphasis on a degree or a career? (or something entirely different)
- 16. What are the costs of offering MPG programs?**
 - a. Political, financial, opportunity costs?
- 17. How diverse are the options offered in MPG schools? Do they adequately cover the needs of all at-risk students? Most? Some?**
- 18. What is the advantage of an MPG program?**
 - a. To kids? Families? Districts?

- 19. How does district administration interact with MPG programs? What could they do to help more?**
- 20. How do policymakers understand MPG programs? What information or experience would help them better understand?**
- 21. Is MPG changing as it goes? Do you see things that need to be changed?**
- 22. How does the district ensure both quality of student outcomes and the programs offered?**
- 23. What does having these programs mean to the district and city? Has there been movement into/out of the district that can be tied to these programs?**
- 24. What are the important questions to ask around MPG? Who should be asking them?**

Appendix 2: Interviewees

The districts and organizations here were kind enough to donate their time and resources to broadening the understanding of MPG programs nationwide. All credit should be due them, though misinterpretations should stop with the author.

Greatest thanks to:

- New York City Department of Education
- James Irvine Foundation
- Chicago Public Schools
- Youth Connections Charter Schools in Chicago
- Alternative Schools Network in Chicago
- Youth Transitions Funders Group
- Portland Public Schools
- Philadelphia Public Schools
- Boston Public Schools
- William Penn Foundation
- Jobs for the Future
- Carnegie Corporation of New York
- Philadelphia Youth Network
- Sacramento City Unified School District
- Denver Public Schools*

*Denver is in the process of designing a multiple pathways program and shared its goals and concerns with the process

Appendix 3: Graduation Rate Measurements

As graduation is a key measurement of educational attainment, its measurement is both important and complicated. The most accurate measurements tend to be costly and time consuming, and much debate exists as to which method or methods are the most efficient and most precise.

Some of the most common methods are explained in brief below:

- **NCES Formula**
This formula divides the number of graduates by the number of graduates plus the total number of dropouts in each grade (9-12), focusing on the proportion of students who have left school by dropping out versus graduating. (This approach, which tends to give a significantly higher graduation rate than the other three methods, is often used for NCLB reporting.)
- **Basic Completion Ratio**
Compares the number of students who start ninth grade compared to the number who graduate four years later.
- **Longitudinal**
Tracks individual students over time, determining which students complete their diploma. (Also commonly used for NCLB reporting, tends to be more accurate—and lower—than NCES but more difficult to track.)
- **Greene Method**
Developed by Jay Greene at the Manhattan Institute, compares a cohort of graduates to the cohort of students who entered ninth grade four years before. This method averages 8-10th grade enrollment and adjusts for factors such as student transfers and retention.
- **Urban Institute's Cumulative Promotion Index (CPI)**
Uses projected promotion rates to determine the likelihood a student entering ninth grade will graduate within four years. This method creates a statistical cohort, and does not attempt to measure the actual cohort.

For more, see the following:

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Appendix 4: Suggested Effectiveness Dashboard

Part of the difficulty in communicating with others interested in multiple pathways across the country is the lack of a common set of standards by which to judge effectiveness.

Heavily borrowed from districts already doing excellent work to measure their progress, the following dashboard of indicators is suggested as a national means for evaluating multiple pathways initiatives. If districts adopt this common dashboard, it will be significantly easier to compare program outcomes and evaluate programmatic aspects for effectiveness across districts.

Primary indicators

- Number and percentage of overage and under-credited students
 - Overage measured as at least one year behind
 - Under credited measured as more than one course behind
- Number/percentage of dropouts yearly
 - Ideally using longitudinal methods (possible with strong data systems)
 - At the least in grades 9-12
 - Ideally measuring grades 6-12
- Percentage increase in graduation rates
 - Longitudinal method strongly suggested
- Rates of higher education admittance
 - Differentiating two-year, four-year, and technical schools
- Rates of required remediation in higher education
- Rates of higher education completion
 - In four- and seven-year measurements for a bachelor's degree
- Employment rates

Secondary indicators

- Income over time
- Increase/decline in school-negative factors such as incarceration, teen pregnancy
- Quality of life indicators such as health and housing status

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