

**Multiple Pathways to Graduation:
How Schools and Districts Can Identify and Address Distinctive Needs**

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The notion of a common 4-year high school experience obscures a significant and urgent national crisis. Graduation rates in many “leading” urban school districts are below 60%. The average graduation rate among the country’s largest 50 cities is 52% (“Cities in Crisis”). In other “struggling” urban school districts, fewer than 35% of students graduate. These statistics do not represent college-readiness measures, which range from 5%-30% for many urban districts.

School systems often lack the ability to serve all students through effective teaching, strategic portfolios of schools and programs, and supports to meet range of individual academic and social-emotional needs. Specifically, the traditional comprehensive high schools have failed to systematically address core school and program elements that increase graduation rates for all students, most specifically those who fall “off-track.”

The dropout crisis in America is driven primarily by students who fall off-track towards completing graduation requirements. To fully understand the nature of the dropout problem requires comprehensive review of “at-risk” and “off-track” student segments. First, a few definitions:

- *At-risk*: students most likely to fall off-track given range of “risk” factors that include eighth grade test scores, ninth grade credit and course completion, English Language Learners, Substantially Separate Special Education, etc.
- *Off-track*: students already 2+ years behind graduation requirements relative to age and year in school.

The size and scale of the dropout crisis in America are bigger than expected and largely ignored. Fifty percent of all freshmen become off-track during their high school career. Nearly one in five high school students falls into the above off-track population. When the populations of in-school and out-of-school youth are combined, the total number of off-track students in

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large urban districts typically ranges from 40-60% of all high-school aged youth.¹ The dropout populations are discrete, not homogenous, and require greater differentiation of deliberate solutions to serve them well.

Students who fall off-track are concentrated disproportionately in certain demographic categories²: 40% African American, 45% Hispanic, 60% male, 30% students with IEPs or special needs, and 15% English Language Learners (mix of minority and ELL populations may vary widely depending upon specific district context).

Once off-track, a student is all but destined to drop out of high school in many districts. The at-risk and off-track students in large urban school districts (NYC, Chicago, Boston) represent more than 90% of eventual high school dropouts. Graduation rates for off-track students in large urban school districts are often below 25%. Key contributing factors include significant unmet academic needs and lack of youth development and social supports. Both are critical to serving the needs of at-risk and off-track youth, as one-quarter of all off-track students enter high school with on-track academic preparation, as measured by eighth grade English Language Arts scores. Students drop out not only because of individual student characteristics but because of failure of districts to address the design of comprehensive high schools.

Off-track student populations represent America's dropouts of today and tomorrow and perpetuate the achievement gap. To date, most districts lack the scale and quality to adequately serve our district's most underserved youth who, even today, have not been provided the adequate academic supports, school options, and other critical social-emotion services that they need.

Overall, districts lack strategic focus on and investment in differentiated school models and programs to specifically address the needs of students who are overage and under-credited or

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drop out of school (i.e. those who will be most likely to take advantage of multiple pathways to graduation). In addition, stratification of graduation pathways are often siloed “alternative programs,” which leads to their being under-managed and under-resourced. Even in situations where a range of programs do exist, there is a lack of intentionality of multiple pathways to graduation—many enroll students who fall across multiple off-track student segments and require differentiated school models, reducing their effectiveness.

There are also an insufficient number of diploma-granting seats in multiple pathways to graduation schools and programs; a lack of clear and high expectations for academic results, limited centralized supports to develop capacity of the field, and very little monitoring of schools to ensure student outcomes; insufficient focus on literacy and numeracy skills embedded across the high school curriculum; a wide range in quality of existing programmatic offerings, with highest performing institutions typically sub-scale and under-resourced; and inadequate investment in student supports and/or community supports to address the youth development and college and career ready skills of students

Efforts to improve U.S. high school graduation rates require significant differentiation in solutions that target diverse student needs. At-risk and off-track populations are distinct and not homogeneous. Proof points exist, many with common design elements. Research from the NYC DOE, Chicago Public Schools, and Boston Public Schools suggests that these student populations can be better served at scale, given early identification and differentiation of offerings to meet individual needs. Specifically, the New York City Department of Education (NYC DOE) helps illustrate these points of differentiation along the spectrum of high school progression (or lack thereof):

- *Prevention*: prevent students from falling off-track by ensuring timely and quality accumulation of credits and/or course completion through addressing portfolio models of high schools.
- *Intervention*: identify and intervene with at-risk students before they fall off-track.
- *Recuperation*: reengage off-track students and accelerate credit recovery/course completion and aligned academic and student supports needed to complete graduation requirements.
- *Recovery*: target school-aged dropouts for re-enrollment in high schools that show power to accelerate their progress toward graduation.

NYC DOE has demonstrated results in delivering student outcomes at rates 2-3 times those seen in overall system graduation rates in its Transfer Schools and Young Adult Borough Centers. These models will be explored in detail later in this paper.

Parthenon has partnered with range of urban school districts, foundations, and local school reform partners across the country to develop actionable strategies to improve the identification, categorization and solutions available for urban off-track youth, as defined by students who fall significant behind in the completion of high school graduation requirements. The projects have typically involved a two-phase approach: First, Parthenon partners with districts to conduct a full “Situation Assessment,” including the development of an in-depth quantitative profile of a district’s at-risk and off-track student populations, plus performance and cost assessments of all high schools that enroll at-risk and off-track students – effectively all schools (for example, large comprehensive, small, pilot, and exam/magnet high schools, as well as multiple pathways schools and programs). Second, together with a district Parthenon facilitates a “Strategy Development” phase that concentrates on the articulation of specific

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recommendations and a proposed strategy to make drastic and measurable improvements to how a district serves its at-risk and off-track student populations.

This paper draws upon Parthenon's experience and explores how districts can employ strategic approaches to develop a comprehensive portfolio of schools that best address the needs of all students, with a focus on historically underserved populations. It will identify core components for effective school models, resource requirements, and key considerations regarding the relative return on investment based upon student outcomes – the latter being a critical requirement for districts to ensure the most effective allocation of its resources to areas of great need.

Growing local, state, and national awareness of a dropout crisis presents window of opportunity for reform and impact. Potential exists to stem the rising tide of dropouts and close persistent gaps in student performance – especially relative to high school graduation and an enduring achievement gap – and the United States' can no longer afford to miss this opportunity for change.

Rigorous Fact-Based Approach with Collaborative Strategy Development

School design must begin with the customer, in this case – students, in mind. Despite the best intentions of many K-12 school systems across the country, this is not the standard approach. However, data exists to inform deep and meaningful strategic planning across districts, which can help inform the most leveraged investment decisions across K-12 education reform efforts.

Recent investments in understanding the national dropout crisis have been significant. Unprecedented partnership between public district leadership and foundations and private sector

entities (Michael and Susan Dell Foundation, Eli Broad Foundation, the Bill and Melinda Gates Foundation, consulting partners, etc.) have supported rigorous, objective, fact-based, and collaborative strategy development.

Efforts have underscored the importance of developing a common understanding / fact-base for creating effective strategies and solutions through a tri-focused approach emphasizing research (what is the problem?), practice (works and at what cost?), and results (what strategies generate meaningful/needed outcomes?).

Phase I: Situation Assessment: Overview of Student Population and Programs to Serve Them

In the first phase of activity typically undertaken by Parthenon and its partners, the focus revolves around three analytical key issues:

1. *Sizing the challenge of serving students who become off-track relative to high school graduation and identify critical differences in needs within at-risk and off-track populations.* This requires partners to assess the overlap of at-risk and off-track students with the dropout population and identify the size of the overage and under-credited population. The scope of the size can be thought of both in a snapshot view, or how many students are off-track at any given point in time, and in a cohort view, or what percent of students become off-track during high school?

Partners must then measure the size of major demographic categories (for example, race, gender, students with IEPs and special needs, English Language Learners) within the overall at-risk and off-track population, as well as segmenting the population by age, course completion, and number of credits earned toward graduation.

1. *Profiling the target population of at-risk and off-track youth.* Partners must determine relationship between incoming skill levels and becoming off-track, which will require quantifying the proportion of students who enter high school “on-track” but fall off-track. It is important to be mindful that not all schools create the same number of dropouts. Articulated high schools in NYC DOE demonstrated differential ability to meet the needs of students and range of promotion power (important aligned data set for strategic planning purposes).

Profiling the target population will also require analysis of the overlap between off-track populations and ELL and students with IEPs or special needs; the progression of off-track students throughout their high school careers (i.e. the timing of when in high school students fall off-track and the patterns and outcomes once students have become off-track); and a measurement of the graduation rate for off-track students which captures the timing of graduation and the type of degree earned.

2. *Identifying effective options with strong recuperative power.* It is vital to focus on identifying options with *recuperative power* – the ability to re-engage students, accelerate credit recovery / course completion in a meaningful way, and graduate students who have fallen off-track.

This effort entails a number of steps, including an assessment of current enrollment patterns of at-risk and off-track students and the population served by multiple pathways to graduation; the identification of articulated high school models that demonstrate higher graduation rates with similar populations; and the calculation of graduation rates of off-track students by program type, which controls for differences in population between various options (key factors include school size and concentration)

and identifies proof points of success with off-track students, as well as invention challenges.

A foundational analytical framework takes into account the following key elements that enable districts (and others) to develop actionable and relevant strategies. It is important to identify and size two key populations that require very different solutions / strategies at different points over the course of high school:

1. *At-risk students*: those who are most likely to fall off-track towards high school graduation – can be identified by early indicators that are evident no later than a student's first year of high school.
2. *Off-track students*: typically two or more years off-track towards graduation, these students fall into different segments who have distinct needs relative to recuperative strategies, etc.

A comprehensive and relevant fact base allows a district to develop and match specific strategies, solutions, and interventions against specific student segments and needs across the along the spectrum from at-risk to falling off-track to off-track. Students will also dropout out at various points along the spectrum, and most will have either an at-risk or off-track profile.

Insomuch as early indicators help districts identify those students who face the greatest likelihood of falling off-track (for example, at-risk populations) and not completing high school, districts must also better understand the profile of students who have already fallen off-track, in order to define appropriate strategic solutions to meet specific student needs. A clear profile of this population also enables districts to assess the efficacy and scale of their current efforts to serve off-track youth relative to demand for such options.

Early indicators to identify at-risk students and different segments of off-track youth should also meet to critical criteria:

1. *Are they predictive of dropping out?* What is the graduation rate of students with a certain risk factor and/or within a specific off-track segment?
2. *Are they comprehensive in identifying many dropouts?* What percent of total dropouts can be accounted for by any given early-indicator and/or off-track segment? Specifically, how can resource allocation be evaluated for populations that represent significant portion (that is, over 25 percent) of dropout challenge vs. those that represent severe, but not comprehensive (that is, less than 1 percent) proportion of dropouts?

By designing strategies around factors that are both predictive and comprehensive, the district can be assured of making efficient, targeted investments that also address a large enough portion of the dropout problem to fundamentally shift existing trends in student outcomes.

Phase II: Evaluate Strategic Options for Future Investment and Capacity Building

The second phase entails a series of steps for evaluating the opportunities for future action. This includes identifying the relationship between credit accumulation in early high school years and eventual graduation outcomes, and finding the correlation between credit accumulation and graduation to forecast future results; setting plausible targets for capacity expansion to address student needs; estimating the impact on system-wide graduation rates based on targeted goals; determining the cost-per-pupil of various programmatic options; and combining forecasted impact with projected cost to calculate return-on-investment for different investment options, a key metric of which is annual operating cost per point of graduation rate increase.

Core analytical components not only ensure a thorough fact-base, but also enable districts to pursue strategies that are specifically mapped against tangible and sizeable needs for their specific students. District leadership drove the process, in partnership with Parthenon, to ensure collaborative process of data discovery to support momentum for implementation.

Opportunity for Action

Although the challenges in better serving all students, especially off-track students, and truly preparing them for college readiness are significant, the opportunity for action is real.

First, early identification of the youth most at-risk is feasible. Across districts, over 75% of students can be identified by eighth or ninth grade (or by no later than their first year of high school) in both a predictive and comprehensive manner. Earlier methods for identification, for example before eighth grade, are less comprehensive. Overlap exists across early indicators, although where indicators are different, this is often the result of different student demographics (for example, higher concentration of ELL students, etc.). Early-indicator segments have very low graduation rates, often below 35%-40%. They are the at-risk groups. Understanding and responding to indicators related to ninth grade performance is critical to preventing students from falling off-track (and intervening early when at-risk students start to fall off-track).

Second, focusing on at-risk students by itself is not a sufficient strategy, as the number of enrolled students who have already fallen significantly “off-track” towards graduation is staggering. The size and scale of the dropout crisis in America are bigger than expected and largely ignored. Fifty percent of all freshmen become off-track during their high school career. Nearly one in five high school students falls into the above off-track population. When the

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populations of in-school and out-of-school youth are combined, the total number of off-track students in large urban districts typically ranges from *40-60% of all school aged youth*.

Third, ninth grade performance matters, a lot, and can be readily tracked and translated into action. Parthenon research is consistent with others in the field (Chicago Consortium, Balfanz, etc.) in finding that credit accumulation in ninth grade (both number of courses and specific course content) is highly predictive of eventual high school graduation or dropout rates. Across districts, there is strong evidence of the power of intervention in the different trajectories of students who fail multiple core courses in ninth grade. Closely monitoring ninth grade progression (or lack thereof) presents opportunity for action. However, research shows that concentrating solely on ninth grade is insufficient to sustain student progression and address differential needs across sub-groups with range of programmatic and scheduling needs.

Fourth, at-risk and off-track populations are distinct and not homogenous. Nationwide, patterns are emerging that identify consistent segments of students, which, when combined, represent the majority of the off-track population in a district. The individual segments require differentiated strategies and solutions. For example, an 18-year-old student with family and/or other work obligations has very different socio-emotional and scheduling needs than a 16-year old who has not completed ninth grade credits.

Finally, proof points exist across the country, with many common design elements. School models exist that have been designed with the customer, the student, in mind. They have common elements and are flexible to meet the needs and strengths of students. Specific models are addressed in detail in subsequent section, “Solutions Exist, with Demonstrated Impact at Scale.”

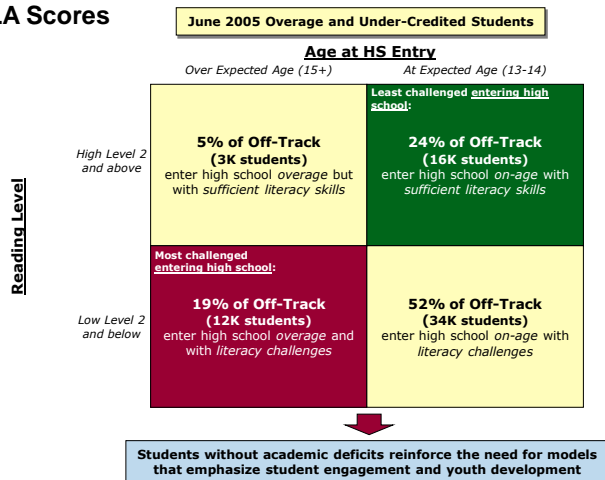
Representative Off-Track Student Populations

As noted above, students who fall off-track are concentrated disproportionately in certain demographic categories³: 40% African American, 45% Hispanic, 60% male, 30% students with IEPs or special needs, and 15% English Language Learners (mix of minority and ELL populations may vary widely depending upon specific district).

Once off-track, a student is all but destined to drop out of high school in many districts. The at-risk and off-track students in large urban school districts (NYC, Chicago, Boston) represent greater than 90% of eventual high school dropouts. Graduation rates for off-track students in large urban school districts are often below 25%. Key contributing factors include significant unmet academic needs and lack of youth development and social supports. Both are critical to serving the needs of at-risk and off-track youth as almost one third of all off-track students enter high school with on-track academic preparation, as measured by eighth grade English Language Arts scores (and as depicted in chart below).

Profiling the Target Population

Although Literacy Is a Leading Challenge for Off-Track Students, 30% Enter High School with High Level 2 or Better ELA Scores



Note: Excludes District 75 students

NYC DOE Multiple Pathways 2

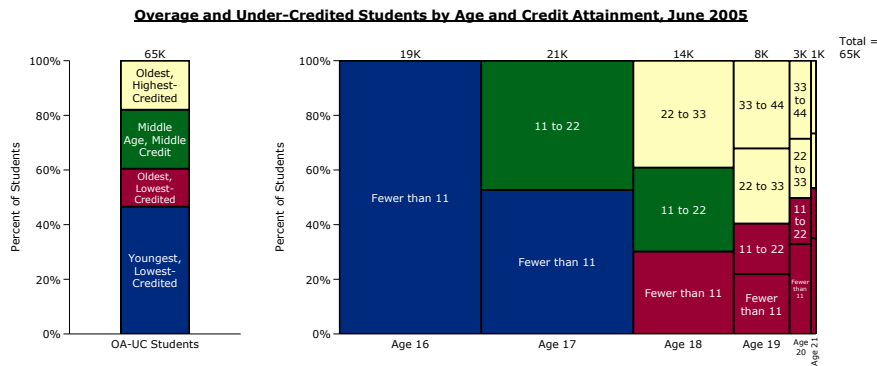
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Moreover, off-track students can be further segmented by their age and level of credit attainment relative to graduation requirements. As demonstrated in the chart below, majority of off-track students have completed less than one-quarter of credits required for graduation, despite having been in the high school system for at least two years.

Sizing the Challenge

Majority of Off-Track Students Have Completed Less than One-Quarter of Credits Required for Graduation

- 57% of off-track students have fewer than eleven credits
 - Nearly 7,000 enrolled students are at least 18 years old with fewer than eleven credits (11% of all overage / under-credited students)



Note: Excludes District 75 students
Source: ATIS Data

NYC DOE Multiple Pathways 1

Emerging strategic priorities for off-track students are intuitive and actionable. Specifically, representative Boston Public Schools’ “Off-Track” Segments include:

- *“Young and Far” from Graduation:* 16- or 17-year old students who are two or more years off-track towards completing graduation requirements (on average 10%-20% system-wide graduation rate).
- *“Old and Far” from Graduation:* students 18 years or older who are two or more years off-track towards completing graduation requirements (on average 20% system-wide graduation rate, many through GED programs).

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- *“Old and Close” to Graduation*: students 18 years or older with less than one year of completion requirements towards graduation (on average, 40% - 50% system-wide graduation rate).
- *Overage Late Entrant ELLs*: ELL students new to BPS and who are overage relative to expected grade level (average projected graduation rate 20%-30%).

Solutions Exist, With Demonstrated Impact at Scale

New York City Department of Education and Chicago Public Schools have pursued distinct but complementary strategies to better serve off-track youth. The NYC DOE has developed and implemented a portfolio of schools and programs designed to explicitly and intentionally serve different segments of the off-track population. In doing so, NYC DOE has dramatically improved student outcomes relative to the typical performance of off-track students. Recent efforts in Chicago Public Schools have included a broader use of a portfolio strategy to target differentiated students needs by developing at-risk indicators to identify high school students who are at the greatest risk of falling off-track no later than the end of a student’s first year of high school (75% of eventual off-track students can be identified by such early indicators).

The New York City Department of Education’s Multiple Pathways schools/programs are deliberate models that address youth development and academic needs, and accelerate credit recovery necessary for students to earn a high school diploma. The program designs are rooted in data that demonstrates importance of addressing both academic and social-emotional needs of students. Many students who eventually fall off-track entered high school on-track. Specifically, since one-quarter of all students who become off-track entered high school on-age

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and with strong eighth grade English Language Arts test scores, emphasis is placed on student engagement and youth development across all program offerings.

NYC DOE Multiple Pathways schools and programs have demonstrated significantly differentiated outcomes with off-track students as compared to outcomes for the same students within NYC's large comprehensive high schools, where fewer than one in five off-track students earn a high school diploma (19% graduation rate). NYC DOE's Office of Multiple Pathways to Graduation ("OMPG") manages the strategic planning, school development and implementation of a portfolio of such diploma-granting high schools and programs designed to better serve NYC's "off-track" youth (defined as students who are at least two-years off-track relative to completing high school graduation requirements).

Transfer Schools

Transfer schools are small, academically rigorous full-time high schools designed to re-engage students who are off-track or have dropped out of high school. The essential elements of a transfer school include a personalized learning environment, rigorous academic standards, student-centered pedagogy, support to meet instructional and developmental goals, and a focus on connections to college. All transfer schools designed as a result of this data have the essential element of opportunities and supports of Learning to Work (LTW), which offers additional academic and student support, post-secondary and career exploration, work preparation skills development and internships. Students must have been previously enrolled in an NYC public HS for at least one year and are far from grade-level promoting; most students enter at age 16-17 with fewer than ninth grade credits.

There are a number of trends and characteristics found across transfer schools:

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- Transfer schools typically are most effective with “Young and Far” student population (those with time to “catch-up” through effective literacy and numeracy strategies across the curriculum and acceleration).
- Transfer school populations mirror that of their large comprehensive high school counterparts in terms of age, credit accumulation, and eighth grade ELA and Math scores (they are typically 2-4 years off-track and have been disengaged from previous high school experience).
- Transfer schools increase student engagement, with a two-fold increase in student attendance from 40% to 78% .
- Transfer schools improve student progression, where credits-earned-per-year increased from 4.9 to 8.9 credits.
- Early-generation Transfer Schools (over 20 schools) graduated 56% of students, comparable to NYC’s system-wide graduation rate of around 58% (or three times the graduation rate of off-track students in large comprehensive high schools).

Across every level of eighth grade reading preparation, graduation rates of off-track students in Multiple Pathways schools have more than doubled that of the same populations in comprehensive high schools. The most powerful outcomes are seen among students with the highest need (for example, students with the lowest eighth grade preparation and fewest high school credits). Highest performing transfer school delivered 69% graduation rate, meeting same diploma requirements (“alternative” diploma based upon lower standards does not exist in NY State).

Ultimately, as a first step, Multiple Pathways delivered highly differentiated outcomes among a dramatically underserved student population by raising outcomes to be on par with

system averages; as well, the increase in graduates generated by Multiple Pathways schools have contributed to NYC's overall system improvement, where graduation rates increased from 44% to 59% between 2003 and 2008. Transfer schools contributed to 4-year graduation rate impact, while broader portfolio of transfer schools and YABCs supported increases in 5 and 6-year graduation rates system-wide.

Young Adult Borough Centers (YABCs)

YABCs are small learning environments that offer full-time customized evening academic programs and comprehensive youth development strategies through community-based practice for students who have been in high school for at least four years and have attained a minimum of 17 credits, comparable to sophomore standing. They are designed to meet the needs of high school students who might be considering dropping out because they are behind or have adult responsibilities that make attending school in the daytime difficult. Students graduate with a diploma from their home school after they have earned all of their credits and passed all of the required exams while attending a YABC.

Students who are registered in a YABC program remain assigned, for all accountability measure, to their sending school. This is critical to ensure that accountability remains with school that initially failed to meet student needs. Attendance is strictly monitored and documented by the YABC program. YABCs also have the key design element of Learning to Work (LTW), which offers additional academic and student support, post-secondary and career exploration, work preparation, and skills development. The comprehensive approach of YABCs is critical differentiator from prior evening high school models. The elements of Learning to Work are designed to enhance and complement the academic component of YABCs. Many

YABCs also include the LTW internship component, in which students can gain valuable work experience and earn money at the same time. These programs are specifically designed for “Old and Close” student populations, and they deliver 44% average graduation rate across YABCs in one year.

GED Programs

NYC DOE has recently redesigned “Access” GED Program, which is the city’s first full-time GED program for off-track youth. Designed to support the principle that GED students must do more than pass the GED exam to be successful in today’s economy, the program is structured so that every Access student uses the GED as a springboard to training, college, and/or employment. GED programs are viable college ready options when rigorous programmatic elements are in place to serve select student population who due to age and circumstance cannot attend high school on a full-time basis. NYC policy was amended to limit enrollment in GED programs to students 18 years or older, with exceptions granted on a case by case basis. The full-time model is designed to assist students to reach a college ready score on the GED test without remediation at the college level. Essential components include:

- Age- and culturally-appropriate, research-based curriculum;
- Contextualized learning experiences and student portfolio process;
- Learning to Work CBO partnership, which provides opportunities to participate in the workforce;
- Explicit pathways to post-secondary training and employment;
- Orientation phase, which encourages students to reinvent their identities as learners and achievers before they begin class work; and

- Student support services, which start at enrollment and continue for one year after graduation.

NYC's Office of Multiple Pathways has demonstrated a clear ability to measure, develop and build an effective portfolio of schools and programs that demonstrated immediate and measurable results. NYC DOE, as most districts across the country, faces persistent challenge in serving "Old and Far" student population given academic gaps and time pressures in face of students "aging out" of the system. Focus remains on revamping GED programs and allowing for proficiency based progression, as relevant and meaningful. An innovation challenge exists to ensure that appropriate focus, and opportunity, is provided to currently under-served student populations.

Chicago Public Schools (CPS) has invested in broader portfolio development by creating more robust at-risk early indicators and proactive intervention strategies. In Chicago, 75% of eventual off-track students can be identified by indicators established no later than the end of ninth grade. Armed with such data, CPS has developed and implemented a broader Graduation Pathways portfolio of high schools and secondary programs for all students, designed to both prevent students from falling off-track as well as to recuperate off-track students. In addition, Chicago's differentiated prevention and intervention strategies are being used with students within or supplemental to their current school environments. These programs include:

- Prevention: Step-Up
- Early Intervention: SES, AVID, Achievement Academies
- Re-Enrollment and Recuperation programs are separate, self-standing schools models and/or programs

These Chicago strategies were developed and implemented starting in 2008. Efficacy is still to be determined, but leading indicators suggest traction is occurring in the field.

Key Program Design Element

School systems often lack the ability to serve all students through effective teaching, schools and supports that meet range of individual academic and social-emotional needs. Specifically, the traditional comprehensive high schools have failed to address model elements that increase graduation rates for students who fall off-track. However, differential results across large articulated high schools demonstrate that programmatic design matters, a lot. The voice of the customer, the student, is critical in developing and refining effective school models to ensure that all students have the opportunity to learn, and succeed in high school and beyond.⁴

Large comprehensive high school environments trigger conscious disengagement due to a number of causes, including the following:

- Large schools present challenges for students to build meaningful relationships with school staff and peers.
 - *“I hated my old school because it was so big. I didn’t know anyone, I didn’t want to know anyone, I kept to myself, I never asked for help.”*
- Students report notable discouragement by teachers once becoming off-track.
 - *“Teachers would tell the group of students who got good grades that they were going to go to college. They would say it in front of everyone and it made me feel bad.”*
- Overcrowding enables disengagement.

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- *“School is so big that it is easy to skip and no one notices when you’re not in class—I cut school so much that my teacher asked ‘are you in this class?’ when I showed up.”*

Multiple Pathways programs demonstrate clear evidence of recuperative powers with previously disengaged students in the following ways:

- Personalized attendance outreach and repercussions are significant disincentives to absenteeism.
 - *“My teachers and advocacy counselor will find me if I do not show up for school.”*
- Staff dedication to integrated youth development helps affirm student strengths and reinforces achievement.
 - *“Our advocate counselors [and teachers] really care. We can talk to them about anything.”*
- Teachers focused on engaging instruction “reset” student interest levels and enforce cultures of high expectations.
 - *“Teachers notice when I don’t understand and they take the time to help, either in class or after.”*
- Frequent assessment demonstrates link between student effort and progress.
 - *“Our bi-weeklies are one of the biggest differences between my old school and new school. Every two weeks you get graded on everything possible—homework, participation—so if you’re behind you can fix it.”*

As such, successful school models and NYC Office for Multiple Pathways to Graduation strategies have encompassed the following six core “Operating Principles”:

1. *Leadership, Faculty and Management*: Includes empowered leaders with flexibility over matters that support school design, including hiring, scheduling, budgeting and curriculum decisions; commitment to students who will succeed nowhere else; and universal focus on youth development, often in partnership with community partners.
2. *Culture of High Expectations, Rigorous and Engaging Instruction*: Includes strength-based instructional approaches emphasize youth development embedded in curriculum, environment and school design elements; and backwards curriculum mapping that emphasizes literacy and numeracy across the curriculum.
3. *Student Support and Engagement*: Includes transformational developmental strategies to engage older students; engagement and counseling for at-risk youth; core attendance outreach; and structured competency approach related to real-world experience.
4. *Career Exploration and Reflection*: Includes subsidized opportunities to participate in real life roles and reflective information-gathering used for career exploration.
5. *Assessment and Accountability*: Includes ongoing assessment of student progress informs individual student programming needs and students represented in all accountability and reporting systems.
6. *Other Factors*: Includes small program size to optimize application of operating principles and increase intensity and personalization (ideally program enrollment levels between 200 and 250, to ensure scale efficiency within a school size that fosters a personalized environment); adolescent-friendly space (that is, single site vs. campus); extended academic calendar and flexible scheduling which will enable accelerated course completion and credit recovery; and enrollment based on choice and specific intake

criteria, to ensure fidelity to each school's specific target population and the related school model design.

Return on Investment

The costs associated with dropouts are real. Societal costs associated with the dropout crisis have been well-documented. Districts make significant investment in students who eventually drop out. Thus persistence of at-risk and off-track students presents opportunity and a challenge for districts, specifically for the least well-served populations, which include ELL and students with IEPs and special needs. Students who are new entrant ELLS or who demonstrate eighth or ninth grade risk factors have an average cost-per-graduate (6-year) ranging between 1.5-2 times their "non-risk" student counterparts. Substantially separate special education students have an average cost per graduate (6-year) ranging between 4-6 times their "non-risk" student counterparts, which underscores the severity of the innovation challenge for these students.

While the above data helpful and powerful in focusing public attention on the urgency of the issue, they do not always speak directly to the decision-making criteria of district leaders, who cannot tap into the long-term savings of dropout prevention and find themselves instead resource-constrained and facing numerous proposals for how to spend the incremental dollars they do control.

Successful investments in dropout prevention could recoup substantial resources for state and local governments over time. Districts must make both system and school level investments in order to support improved outcomes for all students. Superintendents face myriad requests for investment, with few data-based processes to facilitate decision-making. The scale of NYC's

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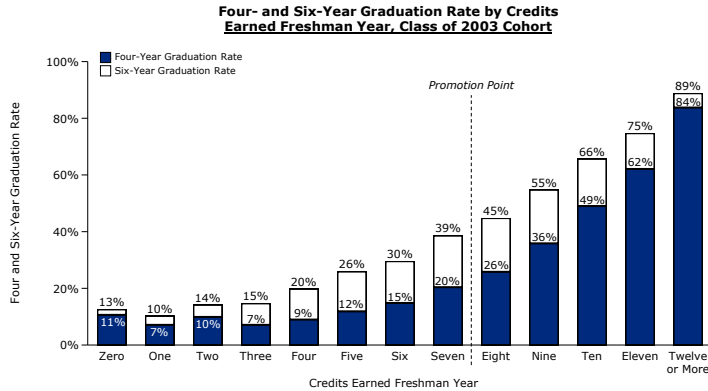
Multiple Pathways’ portfolio allows the district to calculate a cost-per-point-of-graduation-rate increase as the ultimate measure for evaluating the return on investment versus other proposed strategies. By understanding the value-added by each part of the portfolio relative to the population served by that set of schools, districts can allocate resources efficiently while also maintaining flexibility to target specific segments of high strategic importance.

Credit accumulation in the 1st year of high school, as depicted in chart below, is critical element to project high school graduation rates and thus compare relative return on investment across reform strategies.

Return on Investment

Credit Accumulation in 1st Year Is Highly Predictive of Graduation Outcomes, and Can Be Used to Project Impact of Ongoing Reform

- By projecting the graduation rate of various initiatives, district managers can make analytically-driven commitments to the system-wide impact of their plans



Note: Excludes District 75 students
Source: ATIS Data

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Multiple benefits exist to pursuing return on investment (“ROI”) calculations for superintendents and their leadership teams. First and foremost, expectation of measurement establishes culture of accountability for management to track and be able to justify reforms as they are implemented and brought to scale. This helps ongoing review and decision process

regarding reform efforts that should be sustained, merit additional investment, or should be discontinued. This lens provides framework for more disciplined strategic planning and implementation, to help avoid “reform overload.” Second, district leaders who advocate for particular investments are forced to understand the costs of their strategies at a much deeper level, and to quantify their likely outcome. Data is at the core of strategic planning which supports constructive dialogue vs. debate via anecdote. Ultimately, quantifiable measures inform fact-based strategic planning and action.

In the context of Multiple Pathways in NYC, examining cost per point of graduation rate increase focuses on understanding a few key elements of a school system:

- *What is the graduation rate of target populations in core system today?* This provides a sense of the baseline performance that can be expected without further investment.
- *What graduation rate can be reliably forecast for new schools and programs?* The strength of the NYC experience was that existing programs offered a clear benchmark for performance, at scale across the system. Other districts may or may not have clear success stories against which to benchmark. If this is the case, district planning would likely include need to import new models. This introduces an implementation risk to forecasting expected impact on graduation rates, and had implications for timeframe to deliver results.
- *How much will it cost to bring these programs to scale?* To calculate meaningful “ROI” for schools and programs, estimates include: start-up expenses, school operating costs, and the funds spent on the central supports and youth development services that are often critical in differentiating the most successful schools and programs.

- *How much of this spending would have happened anyway?* This reflection helps to inform optimal return on investment. To the extent that opportunities exist to refocus and reallocate existing spending on eventual dropouts towards more strategic and results-oriented programmatic options, there is opportunity for efficiency. Fair student funding policies are critical component of effective resource management.

A disciplined approach to strategic planning based upon rigorous return on investment framework sets clear expectations and allows superintendents to optimize efficiency of system, and outcomes for youth. In addition to the sheer increase in NYC's high school graduates, a critical and pioneering benefit of NYC's Multiple Pathways efforts has been the ability to assess return on investment to identify points of system strength and weakness, set realistic goals for improvement, and thus maximize leverage from available district resources.

Key Reflections and Takeaways

Despite significant progress by districts in both understanding student needs (BPS, CPS, NYC DOE) and mapping solutions to such needs (NYC DOE, CPS), the fact remains that the needs of at-risk and off-track students remain largely unmet due to strategic pressures and lack of capacity in the field. There a number of lessons to be learned from current efforts:

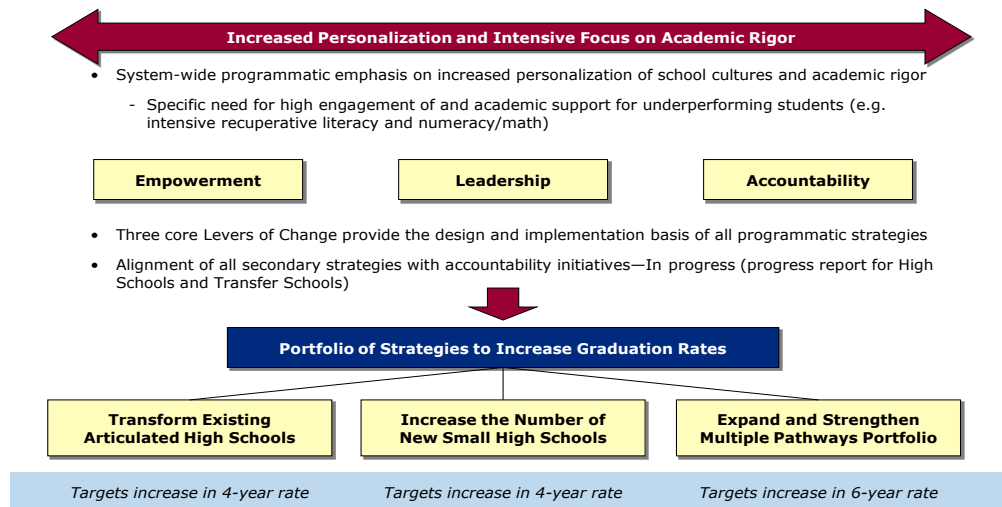
1. *Align programs with broader K-12 strategic vision for district.* Strategic planning around multiple pathways to best serve at-risk or off-track youth is most effective with inextricably linked to and aligned with broader district K-12 strategic planning efforts and specific high school vision. The power of the integrated strategy is that it ensures that all students are provided with the best preventive, intervention and/or recuperative options that will ensure successful high school outcomes. With over 50% of students not

graduating, districts must recognize that these solutions/programs/schools must be integral part of secondary strategy as anything else. The investment requirements to develop and sustain meaningful strategies for at-risk and/or off-track youth are significant and require reflection relative to other district priorities. If prioritized, recuperative options present opportunity to drive significant measureable results in the short-term.

In NYC DOE, system-wide programmatic emphasis exists on increased personalization of school culture and academic rigor (with specific need for high engagement of and academic support for underperforming students). Moreover, three core Levers of Change (Empowerment, Leadership, and Accountability), provide the design and implementation basis of all programmatic strategies. Finally, alignment of all secondary strategies is in place with accountability initiatives (that is, progress reports for High Schools and Transfer Schools).

Situational Context and Project Overview

Reform Will Increase Graduation Rate Through a Portfolio of Specific Strategies Supported by System-Wide Levers of Change



Ultimately, integrated secondary portfolio approach for reforms to increase graduation rates existed, from Large Comprehensive High Schools to New Small High School and Multiple Pathways schools and programs.

2. *Increase internal capacity to “do the work” through clarity of focus and authority to act.*

Internal capacity requirements span multiple levels. First, organize school and program management to establish and communicate high and clear expectations, with centralized team to develop capacity of the field and monitoring of programs to ensure student outcomes.

This represents significant culture change that demands high expectations for all youth and provides supports to teachers to deliver academic and social /emotional supports (emphasis on youth development). Second, create school and program model development and support to increase the number and quality of program offerings. Finally, develop school design, start-up, and student placement support. Ultimately, the full portfolio should be managed under a clearly designated authority which will both advocate and be accountable for portfolio of options, including fidelity of new school implementation, portfolio management, and school performance and student outcomes.

3. *Bolster external partner capacity—develop and scale.* External capacity building has also

been central to success in large districts like NYC. Intermediaries have been an important part of district reforms, especially when pursued at scale. Effective CBOs are necessary to provide youth development and operational supports. However, few intermediaries are experienced in serving / educating off-track youth population.

Resource constraints to fund development and support of new program models are severe. Reluctance to support aggressive expansion efforts is common, given difficulty

of work, and limited incentives. Districts ideally seek to identify and groom strong intermediaries to partner with expansion efforts, though short-term capacity limitations exist.

4. *Ensure intentionality of multiple pathways school and program offerings.* There is a lack of intentionality of “alternative” education schools—enroll students who fall across multiple off-track student segments that require differentiated school models. Given the fact that the various off-track segments require highly differentiated academic and youth development supports, student bodies of such diverse “off-track” needs significantly undermine a school’s core ability to provide a focused educational model that can generate successful outcomes for its students. To address this need, a number of steps must be taken.

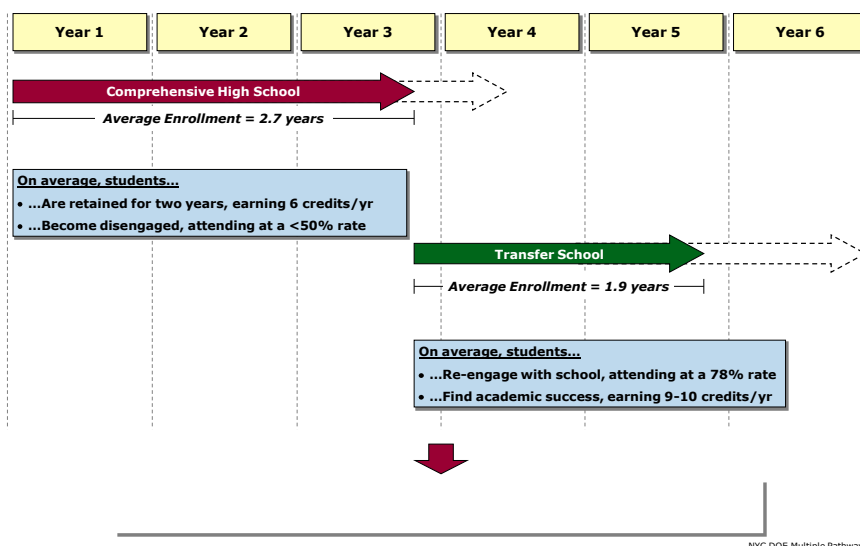
First, we must create and support deliberate school models that are designed to address the differentiated academic and youth development needs of overage and off-track youth. All schools within the Educational Options portfolio will share a common set of design elements that address the core academic, youth development and school environment needs of off-track youth. Individual school models to target specific students segment will offer further differentiated services and supports that are relevant to the school’s target population. Second, we must hold schools accountable for specific graduation rate targets, which they co-develop based upon district and national benchmarks. Third we must develop differentiated prevention, intervention, and recuperative solutions for at-risk and off-track students (including program design and focused instructional strategies).

5. *Policy Considerations: NCLB and State Accountability.* NCLB accountability rules are misaligned with successful Multiple Pathways outcomes. Clear accountability is needed for schools that generate off-track youth. Current measures punish effective schools that focus on serving off-track as students are assigned to transfer school cohorts after spending multiple unproductive years in other schools. Given NCLB's sole focus on four-year graduation outcomes, schools do not receive "credit" for students who graduate after four years, which is often the case in transfer schools.

Six-year graduation rates are the appropriate performance metric for schools and programs serving off-track youth. Overage and off-track students, as defined above, are too far off-track for recuperative options to achieve four-year graduation outcomes. Use of a six-year graduation rate to measure outcomes with overage and off-track students continues to be an important policy consideration for local, state and national forums.

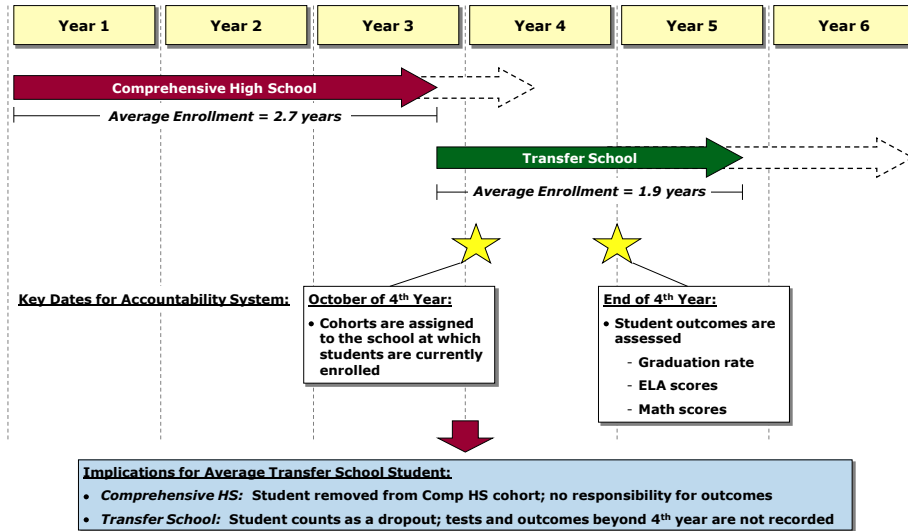
Policy Implications: Accountability

Path of Transfer School Students in the Current System



Policy Implications: Accountability

Federal Accountability Standards Are Mis-Aligned, Setting Poor Incentives for Comprehensive HS and Transfer Schools



Source: ATS Data

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State accountability metrics are varied across the alternative accountability system. The choice of eight possible metrics prohibits comparative evaluation across the transfer school network, which will benefit to create a more uniform set of metrics for evaluating Transfer Schools, align metrics with assessments of whether students are on-track for graduation, and should incorporate value-added metrics in order not to punish schools that accept the most challenge students. Ultimately, ideal system of incentives motivates school leaders to match students with the most effective school option for them given their needs and circumstances, in time for them to be successful.

6. *Policy Considerations: Competency Based Progression.* Transfer school models need to incorporate strategies for credit acceleration and personalized programming in order to meet needs of older, lower credit students. The opportunity exists for the state to allow transfer schools to award credit based on demonstrated competence aligned with state standards, not seat time. It is also important to maintain all Regents exam requirements.

7. *Additional Considerations.* Accountability challenges create an impediment to attracting high-quality leaders. Traditional funding formulas are insufficient for challenges faced by multiple pathways and “alternative” programs. Funding allocations must be loosened to allow funds to flow from large comprehensive high schools to transfer schools, and this transition must occur over time. Opportunities exist to explore efficacy of technology-based school models (virtual, hybrid, etc.) to bolster existing transfer school models, and thoughtful design is required to ensure close match between student needs and programmatic offerings. Finally, we must not forget that college readiness is pressing issue for all transfer schools.

Conclusion

The dropout crisis in America is driven primarily by students who fall off-track towards completing graduation requirements. The “off-track” youth population represents the face of dropouts. While the challenge is significant, solutions do exist. Schools and districts can learn from the experience of Chicago Public Schools for innovative strategies to address at-risk students and from the New York City Department of Education and Boston Public Schools regarding off-track youth intervention and recuperative reforms. As a nation, we cannot afford to ignore the dropout crisis, as it disproportionately affects our most vulnerable youth and perpetuates the achievement gap, especially in large urban areas.

Several critical programmatic and policy considerations remain to support successful multiple pathways strategies at scale across the U.S.:

- In the absence of internal “proof points,” what options exist for districts to replicate and scale successful external school and programmatic models? What is the role of external

partner capacity to ensure effective implementation? What are the implications on timeline for expected results, especially in districts with limited CBO capacity?

- How can districts and states develop appropriate measures and policies to ensure that schools that generate off-track youth are held accountable and that they demonstrate power of promotion and outcomes with off-track youth are allowed sufficient time to re-engage, intervene, and recuperate?
- In the face of increasing standards for high school graduation and college readiness, what are the implications for existing multiple pathways schools and programs? What refinements will need to be made to deliver truly prepared high school graduates who do not require remediation in college? Where will innovation gaps arise?
- What emerging promising practices exist to explore efficacy of technology-based school models (virtual, hybrid, etc.) to bolster existing transfer school models?
- What opportunities exist for districts to create policies to best match students with most effective programs for them, without “tracking” or creating sub-systems? To what extent is “managed choice” a palatable and actionable strategy across student segments?
- How can states and districts create policies that allow for competency-based progression while maintaining rigorous academic standards and ensure true college readiness of high school graduates?
- Ultimately, what is an aggressive, yet realistic, timeline and process for transitioning to fair student funding formulas to effectively support and sustain multiple pathways options? What opportunities exist for districts to support transition to steady state?

With appropriate strategic alignment and integration, organizational focus and discipline, and thoughtful resource reallocation, powerful programs can be designed, supported, and scaled to improve student outcomes in the short, medium, and longer term. Dramatic system-wide increases ranging from 5-10 percentage points are realistic, and should be explored.

¹ All district specific data cited in this paper is based upon Parthenon engagements with NYC Department of Education (2005-2006), Boston Public Schools (2006-2007), and Chicago Public Schools (2006-2007), as noted

² All percentages are estimates, not exact figures.

³ All percentages are estimates, not exact figures.

⁴ The Parthenon Group “Voice of the Student” Focus Groups with New York City High School Students, April-May 2006, Total N=186.