

# **Diploma Gap Study**

## **Project Overview and Main Findings**

**April 15, 2009**

## Brief Overview of the Diploma Gap Study

In July 2008, the Gates Foundation awarded a grant to International Baccalaureate to fund an 8-week study of the Diploma Gap, the gap between the numbers of high school students who could be reached by the IB Diploma Programme and those who actually are. The goal of this project was to identify the reasons for the gap, quantify the impact of the gap, and devise strategic solutions to narrow it.

In their analysis, the consultants found that the causes for the gap could not be explained by the types of schools that the IB serves or the number of students academically qualified to participate. Instead, the reasons for the gap have more to do with the perceptions of students and teachers about the program, the level of funding and incentives provided by the state, the degree of commitment by leadership in the school and district in providing access to all students, and academic and emotional support for students, among other factors.

Based on 2020 growth projections, there will be as many as 19,000 low-income students participating in the IB program by 2020. This number still represents only a small percentage of the total number of low-income students in the schools that IB serves. Furthermore, once in the IB program, low-income students tend to have lower pass rates.

In order to support the achievement of a greater number of low-income minority students in the IB program, the McKinsey report identifies two key strategies:

- Encourage schools to expand their IB programs
- Create targeted supports for high-needs students.

These two initiatives could make great strides to increase the number of high-needs students who benefit from the IB Programme. As the IB remains one of the most impactful systems available to high-needs students, this work addressing the Diploma Gap is one of great importance and presents a major opportunity for the IB.

## Summary of Main Findings and Recommendations

The goal of the Diploma Gap project is to identify the reasons for the gap between the number of students that could participate in the IB Diploma Program and those that actually do. In addition, we aimed to devise strategic solutions to narrow the gap by increasing the participation and success of low-income students in the IB by 2020.

The funding for phase I of the Diploma Gap Study allowed the IB to examine the composition of the students that participate in the IB program, analyze data on student performance among different groups of students and identify practices in schools with large numbers of low-income minority students succeeding in the IB Diploma Program.

IB worked with McKinsey & Co. on the Diploma Gap Study. The consultants working on the study concluded that the IB program has significant potential to make a positive difference for many more high-needs students than we currently serve. In fact, they found that the Diploma Program (the “DP”) stands out among other high school curricula available today in the U.S. public education system because it offers a rigorous, aligned, integrated instructional system that is both appropriate and valuable for students of average skill proficiency, and transformative for minority and low-income, i.e., “high-needs,” students.

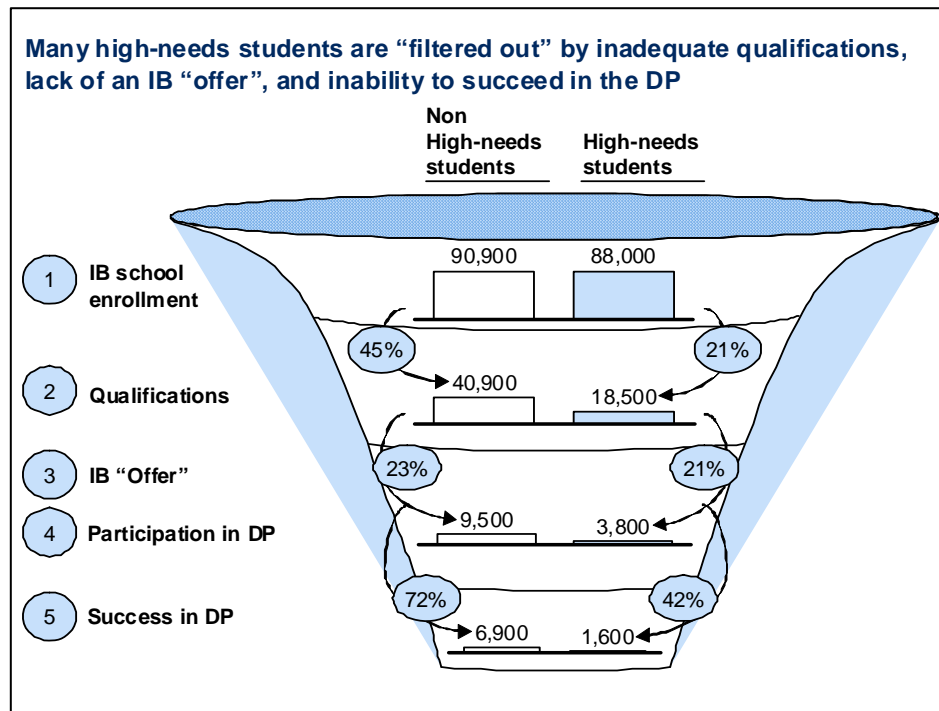
The work on phase I focused on three fundamental questions: (1) what value does IB provide for high-needs students? (2) What are the causes of the Diploma Gap? And (3) what should be the major elements of a strategy to reduce the Gap?

The study included 5 core components:

- Interviews with IB leaders
- Focus groups and interviews with more than 50 school personnel at more than a dozen schools in districts across the country
- Student surveys of more than 400 IB, “pre-IB”, and non-IB students
- Extensive data analysis on IB participation and performance across the U.S.
- A broad literature review of research on IB and “like” programs, including discussions with education experts and IB scholars

## Sources of the gap

The study identified several potential sources for the Diploma Gap with conditions at various stages in a student’s education that affect their likelihood of participating in an IB program. A student must (i) attend an IB school, (ii) be academically qualified to participate (i.e. at or above grade-level<sup>1</sup>), (iii) be offered a place in an IB program, (iv) accept that place (i.e. become a DP candidate), and (v) complete the Diploma



requirements successfully. Each of these conditions acts as a filter preventing a proportion of the students from progressing to a Diploma.

The first filter sharply limits the total number of students reached, although high-needs students and non high-needs students are equally affected. Public schools offering the DP are broadly representative of the race and income demography of U.S. public schools overall. However, only a small fraction (less than 7 percent) of all US students attends a school that is authorized to offer the IB Diploma Program.

The second filter, retaining those students academically qualified to participate in IB, is the largest driver of the gap: less than half as many high needs students (21 percent) are sufficiently prepared as non high-needs students (45 percent). Among qualified students, less than one in four (both high-needs and non high-needs)

<sup>1</sup> Ultimately a student’s fitness to participate in the IB Diploma Program is a case-by-case judgment that must take into account the student’s motivation in addition to her academic skills. At the same time, IB teachers, administrators and IB officials generally agree that “grade-level” provides a useful line of demarcation between students who are likely to have the skills necessary to flourish in the DP and those who are not adequately prepared. “Grade-level can be measured by student performance on national reading and math tests, administered for instance in the 8<sup>th</sup> grade.

actually participates in the program. Thus, the third and fourth filters reflect how widely schools make the program available to students and how many students elect to participate. This low rate stems from school and student perceptions that IB is an elite program for a small number of high-achieving students, rather than a high-quality curriculum to be made widely accessible.

#### **Teacher and administrator surveys**

Lessons from Phase 1 school visits, focus groups, interviews, and surveys at over 15 IB high schools across the U.S. include:

- IB can be successfully operated as a broad program for students with core skills and a will to succeed
- Schools have or can create large numbers of motivated, proficient students of all backgrounds, including high-needs
- Schools must set expectation that teachers and coordinators ensure access for high needs students
- Intervention in the middle years (7th-9th grade) can be crucial to broadening access
- State efforts can be a major catalyst for change

While most teachers and administrators agree that IB is a curriculum good for all students, most schools do not operate the program in this fashion; instead, programs are run as extensions of honors programs or programs for elite students, with entrance requirements, complex application processes, making it particularly hard for high-needs student to gain entrance to a program generally considered for others. In turn, these practices feed heavily into student perceptions.

#### **Student surveys**

Student surveys were collected from 450+ high school students across the U.S., generally representative of the IB student population. These findings provided primary evidence of how students view the program and how they make the decision to participate. Key findings include:

- Students learn about IB primarily through school, with highest influence from their own teachers. High needs students in particular depend on guidance from their teachers when learning about and investigating the program.
- Most students are persuaded to participate by the argument that the program will help get them into college and receive college credit; the IB/ college connection is in place as early as 9<sup>th</sup> grade.
- Students views of the program are not always aligned with the views of teachers and administrators. While teachers were unanimous that the program was one “for all who want to learn”, juniors and seniors in the program were three times more likely to view the program as being for gifted students selected to participate; this mindset represents a significant barrier that IB faces in reaching more students.

## Closing the Diploma Gap

Despite the challenges facing high-needs students' access to the Diploma Program, some schools manage to attract many high-needs candidates and move them successfully through the program. There are several examples of Title I, low-income, high-minority schools that serve high-needs candidates with over sixty percent of those candidates completing the diploma successfully. These schools include Lamar Academy, in McAllen, Texas, Yonkers Middle/High School in New York and Hillsborough High School in Florida.

The "Access" schools differ from "Diploma Gap" schools in identifiable ways in terms of school/district approach, student supports, and state involvement.

**1. "Access" schools and districts take an approach to the Diploma Program that explicitly targets the inclusion of high-needs students.** This includes setting ambitious program size targets, engaging in high-needs outreach, messaging the program as "IB for all students," and coordinating strong school administration and district-level support.

- ***First, these schools and districts set ambitious program targets and specific targets for high-needs participation.*** For example, Hillsborough High School in Tampa, Florida, established its program with a goal of 125 students per class, of whom at least 15 percent every year were to be high-needs candidates.
- ***Second, these schools and districts engage in aggressive outreach meant to extend beyond students of lower-needs backgrounds to reach high-needs students and families.*** Lamar Academy and Chicago Public Schools publicize IB to all students, not just to honors students as is the case in many "Gap" schools, using door-to-door marketing, parent and student outreach sessions, and targeted marketing materials. Hillsborough additionally works with local high-needs community organizations.
- ***Third, "Access" administrations message or promote the Diploma Program as a program for all students, not just those identified as gifted and talented.*** At Eisenhower High School in Texas, as well as at Annandale High School in Virginia, applications and teachers encourage students to apply based on motivation rather than grades or test scores.
- ***Finally, "Access" schools have strong administrative and district-level support.*** The inception of Lamar Academy's all-IB campus was driven and funded by the McAllen school district; access was supported by the school's IB coordinator. Similarly, Hillsborough High School's district-level administration refused to allow the IB program to be "an all-White program in an all-Black school" and additionally provides funding and organizational assistance for the student academic supports needed to get high-needs students through the IB program.

**2. "Access" schools also dedicate extensive funding and human and other resources to establishing student supports necessary to include and pass high-needs students in the Diploma Program.** These supports include: academic

planning from the 8<sup>th</sup> grade, encouragement of advanced courses for all students, targeted extra instruction and skills, and organized structures for social-emotional support.

- ***These schools help students whose parents may not have gone to college plan for a college-preparatory course sequence beginning in the eighth grade.*** At IDEA Academies and Hillsborough High School, counselors approach 8th-graders to encourage them to plan their courses so that their prerequisites will allow them to take advanced courses once in high school. Hillsborough County has taken additional steps to address this barrier: countywide, 87 percent of eighth-graders now graduate with Algebra I requirements fulfilled.
- ***Second, “Access” schools encourage advanced courses for all students.*** In Fairfax County, the Annandale High School IB coordinator encourages all students, beginning in the eighth grade, to consider taking at least one advanced course in a subject where a student’s grades are strong - and if students’ grades are poor because of poor work ethic, to turn things around and consider an advanced course the next year. At JEB Stuart High School, high-needs students in the AVID program, designed to prepare them for more rigorous coursework, are actually required to sign up for at least one advanced class as a condition of the extra support they receive.
- ***Third, exemplary schools set aside extra time, money and resources to address particular subject areas and study skills needed to help high-needs students succeed in the Diploma Program.*** “I make them write, and write a lot, and write again, because they need it,” said one Lamar Academy teacher. In Hillsborough County, teachers receive a stipend for extra tutoring in particular subject areas when they notify district coordinators that it is necessary. These schools may or may not use a support program such as AVID to help them aid students.
- ***Finally, “Access” schools provide the social-emotional supports that high-needs students need to succeed in advanced courses but may not receive at home or from peers.*** At Hillsborough, IB students have a special advisory period with teachers. Lamar teachers add that they provide some formal support but also a great deal of informal support, saying, “We are the advocates” for students whose parents cannot advocate for them.

**3. The third hallmark of “Access” schools is that they often exist in states that are strongly supportive of IB and other advanced programs.** These states provide college credit and scholarships, financial assistance for schools and students, and educator incentives for improving high-needs students’ access to IB.

- ***States such as Texas and Florida grant automatic and generous college credit to students who complete the Diploma Program, as well as scholarships to many state four-year institutions.*** Diploma recipients from Lamar Academy automatically receive 24 credit hours at any college or university in Texas, and are automatically accepted into the law or medical schools at Texas Tech once enrolled as undergraduates; Texas and Florida diploma recipients receive scholarships at particular state universities. Educators emphasize the

importance of these incentives for high-needs students, who both save tuition and gain a head-start on their peers by graduating earlier.

- ***In addition, these states also provide financial assistance with IB fees for schools and students.*** Texas is one of a small handful of states that offsets schools' costs of running an IB program. Lamar Academy, for instance, receives a subsidy of \$450 per teacher trained, as well as equipment grants for materials needed to teach IB courses, such as science laboratory equipment. In addition, as is the case in a larger number of states, Texas pays Lamar Academy student examination fees for all low-income students and all students earning passing scores.
- ***Some states also offer specific incentives to schools and teachers to encourage the inclusion and academic success of high-needs students in IB and other advanced programs.*** In the state of Texas, Lamar Academy and other IB schools receive \$100 per student who passes an IB test. In Florida, Hillsborough County teachers receive \$50 per student who passes an IB test, up to a maximum of \$2000 per teacher each year.

### **Strategies for Narrowing the Diploma Gap**

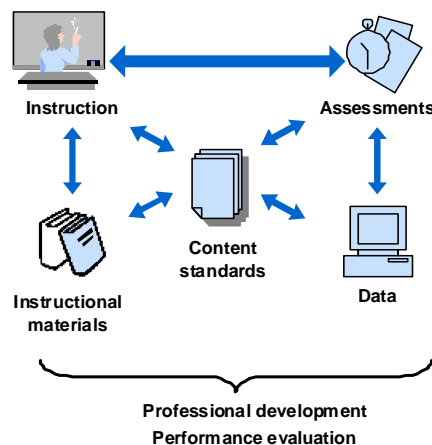
Three sets of strategic initiatives present themselves which could perhaps triple the number of high-needs students participating and succeeding in IB by 2013.

1. **Growing the number of IB schools more rapidly.** The most direct way IB could reach more high-needs students would be to place the IB program into more schools, especially schools with substantial high-needs populations and the capabilities and commitment to include these students in the IB program and help them to succeed in it. It might be feasible to expand IB's footprint by 15-20% annually (10% annual growth is projected in the 2020 growth plan).
2. **Encouraging schools to expand their IB programs.** Most IB schools currently limit the DP to high-achieving students, which locks out many high-needs students. IB could encourage schools to operate on an "access for all" model by providing clear guidance, financial and other incentives, tools to improve student outreach, and increased opportunities to share best practices with other IB schools. IB could also increase efforts to persuade states to provide financial and academic incentives that reflect the value IB brings and remove barriers to its expansion.
3. **Creating supports for high-needs students.** IB could also do substantially more to help schools help high-needs students pass successfully through the IB program, potentially including direct intervention programs targeting challenging subjects such as math and science and training programs that help teachers and school principals successfully provide the extra support required by students who are inadequately prepared.

## Key accomplishments and success stories

The Diploma Program ('the DP') stands out among other high school learning systems available today in the U.S. public education system because it offers a rigorous, integrated, and aligned instructional system that is both feasible for students of average skill proficiency, and transformative for minority and low-income, i.e., "high-needs," students.

**IB provides high-needs students with an aligned, integrated instructional system**



The DP is aligned in the sense that its high standards are supported by a robust curriculum, strong materials, assessments, pedagogy, content, and professional development all of which aim to produce high educational outcomes for students. "IB standards are higher and clearer than all others" one administrator said, adding that his school uses "the IB to plan, and line[s] up other standards accordingly." An IB Principal added, "What I like about IB is that they are very clear about what they expect, so you can teach kids to succeed."

The DP also offers an integrated curriculum: connections across disciplines and between academic materials enhance student engagement and success. "Students gain an understanding of connections across the curriculum" and IB teacher noted, and these connections are proven to help students in learning both during high school as well as with studies in college and beyond. By creating connections across courses and by providing student support mechanisms (e.g., study groups and skills), the IB program pushes students to develop their ability to analyze content and create their own interpretations.

Furthermore, teachers and administrators single out the DP as a program in which all motivated students at grade-level proficiency can be successful, despite the perception that it is one of many academically selective programs. IB's flagship Diploma Program is an unusually challenging and demanding course of study, "the gold standard of high school curriculum in admissions circles."<sup>2</sup>

<sup>2</sup> Barmak Nassirian of AACRAO in a 2006 article in *Education Week*

Focus groups and interviews conducted as part of this work revealed numerous examples of students able to participate and succeed in the program not because of extraordinary talent, but because of a determination to achieve and complete the program. Teachers interviewed during the course of the study showed substantial agreement that the ideal IB student was one with the drive and motivation to achieve, not necessarily the one at the top of the class. “We have students who are #1 in their class and #200 in their class in the IB.” Case demonstrated that even students who are not considered academically advanced by other measures thrive in the DP. McAllen’s DP students achieve some of the highest diploma passage rates in the country, with over 97% earning the diploma over the last five years.

#### **Lamar Academy achieves great success with minority, low-income students**

McAllen, Texas, is a relatively poor town located just a few miles from the Mexican border. The vast majority of its residents, and its students, are Latino, and many come from homes where Spanish is the chief language spoken. Located in the heart of McAllen, Lamar Academy has built a highly-functioning IB program that is a model for access. The vast majority of its students come from minority and low-income backgrounds, but Lamar students have compiled a 99.3% success rate in the Diploma Program over its 7 year history.

Lamar operates with a unique model: it is a small, independent campus, all of whose students are in the Diploma program. Strong support from district has been a key enabler, with 100% coverage of program costs and strong leadership across all levels of program administration. Three MYP schools feed students into the Diploma Program, and Lamar raises awareness by running program awareness meetings with all three feeder high schools. There is a formal application process, but it seeks to identify students who have strong desire to participate as opposed to students who are most eligible from an academic standpoint; all students who apply and want to join the program are invited to attend.

Lamar’s teachers attribute the program’s success to unusually strong *esprit de corps* and a supportive environment. “This is a program for all students; we have students from very affluent backgrounds and very poor students, students who would have never met each other,” said one teacher. “Here they are on level ground, friends.”

Strong anecdotal evidence also suggests that IB has a major impact on high-needs student performance in college. A case study of DePaul University demonstrates that high-needs DP students defeat the high dropout rates that plague their high-needs peers, with a higher first year retention rate than their Chicago Public School peer group and DePaul University Freshmen as a whole. They also achieve substantially higher graduation rates at the university, with 80% graduating in six years versus 62% of the DePaul student body as a whole. Anecdotal evidence from DePaul officials again suggests that these students are strong academic performers and well-prepared for the challenges they face, in spite of the challenges their high-needs backgrounds bring. Teachers and independent researchers verify that this is because the DP equips first-generation college-goers with the study skills, a work ethic, and access to supportive peers and adults that they would otherwise lack.

The main findings from the initial 8 weeks of research and analysis are that:

- IB Diploma is an integrated, aligned learning system that can work well for high-needs students.
- The overall number of high-needs students who gain an IB Diploma is small, partly due to the lack of program availability.
- In other cases, it is due to factors that affect high-needs students in disproportionate measure, such as the need to be at grade-level academically (a factor almost entirely outside the control of the IB).
- The Diploma Gap is substantial and persistent across every significant category of U.S. IB schools—there is no school organization “silver bullet” to solve it.
- However, a significant number of individual IB schools produce dramatically better results for high-needs student participation and performance in the DP, and these schools have features that IB can help foster in other schools.