

Progress and Possibilities: Trends in Public High School Student Participation with Minnesota's Dual Credit Programs 2006-2011

by

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January 2012

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Executive Summary

This report shows progress and possibilities in an important area for Minnesota students. The authors ask and answer three key questions. First, what is the value of Dual (high school/college) Credit courses? Second, what has happened over the last five years with Minnesota student participation rates in various forms of Dual Credit? Finally, what might be done to encourage more participation in these courses?

Our central findings are:

1. Participation in Dual Credit courses offers important benefits to high school students.
2. Participation in most Minnesota Dual Credit programs increased while overall public high school enrollment decreased.
3. Participation by students of color increased more rapidly than participation by the overall high school population.
4. Participation by low-income students increased more rapidly than participation by the overall population in some, but not all, forms of Dual Credit.
5. More can/should be done to increase participation in these courses and programs.

In Minnesota, between 2005-2006 (FY 06) and 2010-11 (FY 11):

1. The high school population decreased by 5%, from 281,484 to 267,844.
2. The number of high school students of color increased by 12%
3. The number of high school students from low-income families increased by 17%.
4. Overall participation increased in three of the four major Dual Credit programs. It increased in the AP program (62%), IB program (76%), and Concurrent Enrollment program (20%), and decreased slightly in PSEO programs (4%).
5. The number of students of color increased for all programs at a faster rate than it did for the overall high school population, except PSEO: AP (53%), IB (136%), PSEO (6%), and Concurrent Enrollment (52% between FY 2008 and FY 2010).
6. The racial diversity of AP, Concurrent Enrollment and PSEO was lower than the racial diversity of high school students in the state, while diversity in the IB program was higher than the average for the state.
7. The number of low-income students more than doubled in AP and IB over the five-year period, with increases of 137% in AP and 154% in IB. The number of low-income students rose more moderately in Concurrent Enrollment and PSEO, with increases of 40% and 10%, respectively.

Acknowledgements

This report was made possible in part through data provided by the Minnesota Department of Education. However, any mistakes of interpretation and analysis are the responsibility of the Center for School Change.

Special appreciation and recognition goes to Jessica Espinosa, Minnesota Department of Education Center for Postsecondary Success; Steve Etheridge, Sharon Peck, Anne Parks, Carol Hokenson and John Raphael of the Minnesota Department of Education; and Macalester College students Kianna Goodwin and Nolberto Zubia, who provided preliminary analysis of this data. We also would thank James W. Mecklenburg, Project Lead the Way Director, for help with information about that program.

Thanks to the students who wrote about their experiences with Dual Credit courses. These statements are included in the Appendix.

The research and presentation of this report was supported by a grant from the United States Department of Education Voluntary Public School Choice Program. This grant is administered by the Minnesota Department of Education. All conclusions and recommendations are the opinion of CSC staff and are not necessarily those of the Minnesota Department of Education or the U.S. Department of Education.

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Introduction

This report builds on and extends the 2005 report “Stretching Minds and Resources: 20 Years of Postsecondary Enrollment Options in Minnesota” published by the Center for School Change. This report serves as an update to the 2005 report and broadens its scope by providing demographic data about PSEO and three additional Dual Credit programs.

The report analyzes enrollment trends in the following Dual Credit programs in Minnesota: Advanced Placement (AP), International Baccalaureate (IB), Postsecondary Enrollment Options (PSEO), and Concurrent Enrollment. Overall participation and participation by race and socioeconomic status of Minnesota public high school students over the time period FY 2006-11 are examined.

This report aims to answer a few key questions:

- a. What is the value of students participating in some form of Dual (High School/College) Credit program?
- b. How has the participation of public high school students in AP, IB, PSEO, and Concurrent Enrollment in Minnesota changed over the past five years?
- c. What are the trends for race and socioeconomic status within participation over the past five years?
- d. How do these trends compare with overall trends for statewide public high school student participation?
- e. What might be done to help more students enjoy the benefits of participating in Dual Credit courses?

This analysis can be used in several ways:

- a. It can inform families, students, and people who work with them about the potential value of participating in various forms of Dual Credit.
- b. It can help focus marketing and outreach efforts to better serve Minnesota’s high school population.
- c. It can help inform state and local policy-makers about current trends in participation, as well as the value of Dual Credit programs.

In 2011 the term “Dual Credit” was adopted by the Minnesota Department of Education to describe programs formerly labeled “Dual Enrollment.” “Dual Credit” is used throughout this report; however, the supporting data uses the term “Dual Enrollment.”

Dual Credit Definitions

The Center for School Change recognizes that many states have Dual Credit and Dual Enrollment programs, but that these programs vary widely in the type of credit they offer. The general premise of Dual Credit and Dual Enrollment is participation by high school students in college-level courses. In some states, students taking these courses may earn college credit in addition to high school credit, hence the term “dual.”

In Minnesota, Dual Credit refers to programs through which high school students earn both college and high school credit. There are a number of programs that allow students to earn Dual Credit, four of which are examined in this report: Advanced Placement (AP), International Baccalaureate (IB), Postsecondary Enrollment Options (PSEO), and Concurrent Enrollment.

Currently in Minnesota AP and IB programs are legislatively supported. School districts receive funding to subsidize the cost of exams and teacher training related to these programs. Under MN Statute §120B.13, the Department of Education is directed to pay 100% of exam fees for low-income students. Each year the state reimburses districts for exam costs for all students and teacher training costs associated with these two programs.

School districts that offer Concurrent Enrollment courses also are eligible to receive aid under MN Statute §124D.091 to help defray the cost of offering this program at the high school.

The PSEO program is also funded through legislative direction under MN Statute §124D.09. There is no cost for students to participate in this program. The state or school districts pay for tuition, books and lab fees at the postsecondary institution when students participate in PSEO.

Advanced Placement

The Advanced Placement program (AP) offers college-level courses in high school classrooms and is directed by the College Board. Schools complete a number of steps to become authorized to offer AP courses. AP classes are structured similarly to college classes and are intended to be more rigorous than traditional high school courses. Most colleges and universities accept AP credit earned in high school, allowing many AP students to enter college with some credit already completed. College credit is usually awarded on the basis of AP exam scores (Bailey & Karp, 2003, p. 5).

International Baccalaureate Diploma Program

The International Baccalaureate (IB) offers three programs that together span kindergarten through 12th grade: the Primary Years Program, the Middle Years Program, and the Diploma Program. In Minnesota, the Primary and Middle Years Programs are school-wide initiatives, meaning that all students in IB schools participate in these programs. Many students who participate in the Diploma Program, which is for high school students ages 16 and up, have gone through the earlier programs. Students can enter an IB high school and be eligible to participate in the IB Diploma Program without any experience in the Primary or Middle Years IB programs. The Diploma Program consists of a comprehensive curriculum, including courses in six disciplines, a Theory of Knowledge course, proficiency in a second language, and service

learning (Minnesota Department of Education, 2011). To receive the IB Diploma, students must fulfill these requirements and score well on the IB exams. Students may participate in the full program or take individual IB courses and their exams (Minnesota Department of Education, 2011). Many colleges and universities accept IB exam scores for college credit, usually awarded based on cutoff scores (Bailey & Karp, 2003, p. 5).

Postsecondary Enrollment Options

Postsecondary Enrollment Options (PSEO) in Minnesota allows high school students to enroll in courses taught by college professors on college campuses. The program is open to eligible high school juniors and seniors. Students may enroll on a part-time or full-time basis. This allows students to earn college credit at little or no cost and enter into postsecondary institutions with some requirements already met. The post secondary institutions generate a separate college transcript for the participating students' with their college courses and grades. Eighty-nine Minnesota colleges and universities participated in PSEO during the 2010-2011 school year (Minnesota Department of Education, 2011).

Concurrent Enrollment

Concurrent Enrollment in Minnesota allows students to take college courses offered on high school campuses. Enrolling and successfully completing Concurrent Enrollment courses earns the participating students both college and high school credit. Separate transcripts of college courses and grades are generated for participating students. These courses may be taught by college professors, or high school instructors trained by college professors, to offer these courses. In addition, the courses may be taught remotely by college professors, either online or via Instructional Television (ITV) on high school campuses (Minnesota Department of Education, 2011).

Another program that allows Minnesota high school students to earn both high school and college credit while still in high school is Project Lead the Way (PLTW). This report includes a brief description of PLTW with a few available data points. Data provided for PLTW has not been disaggregated by race and/or socioeconomic status.

Project Lead the Way

Over the last decade, a program called Project Lead the Way (PLTW) has been implemented in Minnesota middle and high schools. It allows juniors and seniors in high school to earn both college and high school credit in areas such as engineering, computer integrated manufacturing, digital electronics, and principles of biomedical sciences.

The latest state data shows the following on PLTW:

- The number of Minnesota high schools participating in PLTW has grown from six in 2002 to 119 in 2011 (J. Mecklenburg, personal communication, December 7, 2011).

- The most recent years for which data is available are 2009-10 and 2010-11 (J. Mecklenburg, personal communication, December 7, 2011).
- The number of PLTW students tested to determine if they would earn college credit has increased from 3,672 in 2009-10 to 4,593 in 2010-11, a 27% increase (J. Mecklenburg, personal communication, December 7, 2011).
- Of those taking the PLTW tests in 2009-10, 18.4% were female and 81.6% were male. Similar data was not available for 2010-11. (J. Mecklenburg, personal communication, December 7, 2011).
- Trend data currently is not available showing statewide percentages of low-income students or students of color who have taken the tests required to earn college credit via Project Lead the Way (J. Mecklenburg, personal communication, December 7, 2011).

Literature Review

Ongoing research on Dual Credit programs examines what benefits, if any, participating in Dual Credit courses offers to students. This research review examines Dual Credit in Minnesota and in other states.

The 1996 Legislative Auditor Report for the State of Minnesota found that “students who participated in the program did better in their postsecondary courses than regularly-admitted first-year students, except at technical colleges” (Program Evaluation Division, 1996, p. 68). Students and administrators provided two important reasons why students participated in PSEO during 1994-95. The reasons were to get a head start on college credits and to save money. While the majority of high school administrators had concerns about loss of funds via PSEO, 52% said PSEO had increased cooperative efforts between their school and post-secondary institutions, and 64% said PSEO had increased communication between their high school and post-secondary institutions (Program Evaluation Division, 1996).

The report included surveys from parents and students indicating the importance of various reasons for program participation, program benefits and areas of improvement during the school year 1994-95. The results showed:

Students and parents said the most important reasons for program participation were:

- 73% of students and 67% of parents indicated it was “very important” to get a head start on college credits.
- 44% of students and 57% of parents indicated it was “very important” to save on post secondary costs.
- 34% of students and 51% of parents indicated it was “very important” to take courses that were more challenging (Program Evaluation Division, 1996, p. 57).

Satisfaction with Program:

- 72% of students indicated they were “very satisfied” with the Postsecondary Enrollment Options program in the year before.
- 97% of students indicated “yes,” they would participate in the program again if they were given the opportunity (Program Evaluation Division, 1996, p. 154).

Program benefits:

- 74% of students indicated becoming better prepared academically was a “major benefit.”
- 56% of students indicated knowing what they wanted to know for the next year was a “major benefit.”
- 51% of students indicated learning about their academic strengths and weaknesses was a “major benefit.”
- 75% of students indicated knowing what to expect from college was a “major benefit.”

- 76% of students indicated learning more than they could in high school was a “major benefit.”
- 71% of students indicated saving money because tuition was free was a “major benefit.”
- 75% of students indicated saving time because courses could count for secondary and post secondary credit was a “major benefit” (Program Evaluation Division, 1996, p. 151).

Areas of improvement:

- 62% of parents indicated “much need,” “some need” or “a little need” to improve information about PSEO provided by their child’s high school.
- 59% of parents indicated “much need,” “some need” or “a little need” to improve information about PSEO provided by postsecondary institutions (Program Evaluation Division, 1996, p. 138).

To test the survey results from the 1996 Legislative Auditor Report, Erin McQuillan conducted research focused on Saint Scholastica students who had participated in PSEO in high school. She examined how Saint Scholastica participants were benefiting from the program between 1999 and 2006. The results found that the participating Saint Scholastica students earned higher GPAs (Grade Point Averages) and had a graduation rate of 25% higher than students who did not participate in PSEO (McQuillan, 2007, p. 8). Data from 2002-2006 was “eliminated because students identified as PSEO could also have participated in Concurrent Enrollment, where college courses are taught by high school teachers at a college level” (McQuillan, 2007, p. 5).

The Minnesota State Colleges and Universities conducted a study of PSEO in 2001. Among the study’s conclusions were:

- 62% of public high students participating in PSEO “accessed MnSCU campuses to earn college credits.”
- “The academic performance of most high school students attending college and university campuses has been impressive; although a significant number of high school students fail or withdraw from courses taken at college and university campuses.”
- “The program has had difficulty extending college-level technical education opportunities to high school students. Further expansion opportunities include reaching out to students who cannot succeed in the high school environment” (Minnesota State Colleges and Universities, 2001, pp. viii-ix)

A 2005 study by the Center for School Change reached several conclusions:

- The study commissioned a statewide poll to determine what Minnesotans thought of PSEO. The poll, conducted by Mason-Dixon Polling, found that 82% of Minnesotans either “strongly support” or “support” PSEO.

- The study surveyed 357 PSEO participants. 97% were either “very satisfied” or “satisfied” with the PSEO experience. 86% would “definitely” do PSEO again if given an opportunity.
- Participating students cited several major benefits of PSEO, including learning more than they would in high school courses, saving time and money, and feeling more academically prepared for some form of higher education.
- The biggest concerns students expressed were about the difficulty of obtaining information about the program and which colleges/universities would give credit for the Dual Credit courses they took.
- PSEO helped encourage an increase in the number of “Dual Credit” courses offered in Minnesota’s high schools.
- The study found that low-income students and students of color were significantly under-represented in the PSEO program (Nathan, Accomando & Fitzpatrick, 2005, p. 3).

The report also included several recommendations. These included:

- Increase information shared with families, especially those from low-income backgrounds and those representing communities of color.
- Provide more opportunities for high school students to participate in college courses, and more flexibility in admitting students to PSEO (Nathan, et. al., 2005, p. 3).

A 2007 study prepared by a Minnesota State Colleges and Universities researcher looked at experiences of students who had taken courses at career and technical colleges. He concluded, “College students with prior PSEO experience tend to have higher mean GPAs [Grade Point Averages] than those without the experience.” He found that PSEO students who took a combination of career and technical classes and academic classes were more likely to earn a credential than those who took only one kind of course. The report also notes that participating in PSEO tends to give students a “head start” and that “the head start is critical if it means that when high school students encounter the right combination of academic and technical courses, the early success in college goes a long way in ensuring that all students, but especially CTE [Career and Technical Education] students, continue toward completing their college program of study and leave with a postsecondary credential” (Kotamraju, 2007, p. 51).

A study through the Oregon University System Office of Institutional Research examined experiences of that state’s Dual Credit participants. The findings were a “clear-cut yes” that students who had participated in Dual Credit went onto college and earned a higher first-year GPA compared to their peers who did not take Dual Credit (North & Jacobs, 2010, p. 16). The participating students had an advantage in their second year because they had earned more credits.

A University of Iowa, College of Education report found:

- Dual enrollment students were 11% ($p < .01$) more likely to persist through the second year of college than non-participating students.
- Dual enrollment students were 12% ($p < .001$) more likely to enter college within seven

months of high school graduation than non-participating students.

- Dual enrollment students who completed 20 or more credits in the first year of college were 28% ($p < .001$) more likely to persist through the second year in college than were students who did not complete dual enrollment courses.
- Inferential statistics indicated a 12% ($p < .01$) greater likelihood that dual enrollment students who had not anticipated earning a BA would graduate with a bachelor's degree than non-participating students who had originally intended to earn a BA.
- "Overall, I believe the most important findings of this report are the suggestions that dual enrollment fosters more positive attitudes towards earning post-secondary degrees in students who did not previously hold these attitudes; that dual enrollment participation greatly improves students' propensity to persist in college; and this persistence in turn improved greatly dual enrollment students' likelihood and odds to graduate from college with bachelor's or graduate level degrees" (Swanson, 2008, p. 8).

The researcher concluded, "Dual enrollment programs should be more widely available to all students..." (Swanson, 2008, p. 8).

Findings from a three year survey and interview based Dual Credit study conducted in Georgia from 2003-2006 on the topic of access and success showed that 91% of the students participating in Dual Credit "earned an A, B or C in their technical college coursework which indicates that they are capable of successfully completing college-level coursework" (Lynch & Hill, 2008, p.30). "Eighty-one percent of former dual enrolled students in technical colleges earned a letter grade of A, B or C on all college-level coursework, including general education and technical as a result after transitioning" (Lynch & Hill, 2008, p.30). The respondents indicated an attitude change towards school: an increase in confidence in college-level work; They also stated that dual enrollment enhanced their career planning and decision making (Lynch & Hill, 2008, p.31).

With some similar conclusions as the studies mentioned above, the National Research Center for Career and Technical Education in Minnesota studied the strategies and outcomes of selected demographic characteristics in Dual Credit participation between 2001-2002 in Florida and New York. The research in Florida indicated positive outcomes of participants having higher retention rates for their second year in college. Participants also had a higher college GPAs than students who did not participate in Dual Credit (Karp, Calcagno, Hughes, Jeong & Bailey, 2007, p.36).

A more recent study of New York's "College Now" program for high school students also had positive results: "In recent years, "academic momentum" and time to degree completion have been important issues.... we also find large and positive effects of the program in helping student earn more credits even after they have enrolled in college, and in earning higher grades in college" (Dadgar & Allen, 2011, pp. 17-18).

The study of New York and Florida found that Dual Credit programs have the ability to raise the achievement of students not traditionally seen as successful in high school, even more so than

the achievement of those who are traditionally encouraged to take Dual Credit courses. The report states:

As with the analyses for participation generally, these are encouraging findings regarding the influence of dual enrollment on the types of students who tend to be less successful in college. Males, low-income students, and low-achieving high school students all appear to benefit from their participation in dual enrollment to a greater extent than their dual enrollment peers who enter college courses with more social, economic, and educational advantages. This indicates that dual enrollment may well be a strategy for encouraging postsecondary success among students not typically seen as college-bound. It also indicates that contrary to the arguments of some critics of expanding dual enrollment programs, dual enrollment can benefit a range of students, not only those who achieve at very high levels in high school. Indeed, dual enrollment may be the most beneficial to those students who are often excluded from participation (Karp et.al., 2007, p. 63).

One other point seems important as Minnesotans consider the value of Dual Credit courses: the potential of these courses to contribute to higher rates of post-secondary completion.

Citing federal sources, the Minnesota Office of Higher Education (MOHE) reported on graduation rates of Minnesota four-year colleges as of 2006. Overall, Minnesota four-year colleges and universities ranked 19th in percentage of students graduating in four years (36.7%). The state's four-year institutions overall also ranked 19th in percentage of students graduating in six years (57.5%) (p. 13, Minnesota Office of Higher Education).

An undated online update from MOHE showed that as of 2010, "Graduation rates at four-year institutions have been inching up. The graduation rates [vary considerably from institution to institution](#), as the number of students used to track the rate varies within each institution." This report showed that the 2010 overall six-year graduation rate at four-year institutions had reached 61% (Minnesota Office of Higher Education, 2010). The report also showed that the six-year graduation rate in Minnesota's four-year institutions, as of 2010, was 62% for White, 60% for Asian Americans, 54% for Latino, 43% for African American, and 39% for American Indian students.

Again citing federal sources, the 2009 report noted that Minnesota ranked 23rd in percentage of students graduating in three years from two-year institutions (33.3%). Minnesota ranked 5th in combined graduation and transfer rate (53.9%) (p. 15, Minnesota Office of Higher Education).

Research cited earlier in this section indicated that participation in Dual Credit courses can help increase college completion rates. Whether from two or four year institutions, this is an important goal.

Methodology

The Dual Credit data used for this report was collected by the Minnesota Department of Education, the College Board, and International Baccalaureate. The Minnesota Department of Education shared the data with the Center for School Change. General student demographic data was taken from the Minnesota Department of Education website. CSC staff and research assistants analyzed this data.

The general time period used for this report was 2006-2011, but when 2011 data was not available 2010 data was used. The terminology of fiscal years rather than school years was used because MDE reports Dual Credit data in fiscal years. MDE's fiscal year runs from July 1st to June 30th so, for example, FY 2006 refers to the school year 2005-2006.

Due to the availability of data, AP and IB participation is measured by the number of students who take exams, though many more students take the classes but do not take the exams. PSEO and Concurrent Enrollment participation is measured by the number of students enrolled in these programs.

In the charts, students are identified by race as "White," "Hispanic," "African American/Black," "Asian/Pacific Islander," "American Indian," "Not-stated," and "Other." These terms were used by the Minnesota Department of Education to collect racial data. For most accurate representation of the data those same terms are used in this report. The terms "Asian" and "Asian/Pacific Islander" were standardized to "Asian/Pacific Islander" for consistency as various MDE reports use both terms.

This report determines the low-income status of students by enrollment in the federal Free and Reduced Lunch program. The government calculates the number of Free and Reduced Lunch students based on family income. These numbers may under-report low-income students because not all families who qualify may enroll their children in the program. The Free and Reduced Lunch data used in this report was collected from the Minnesota Department of Education website. The "Free Lunch" and the "Reduced Lunch" numbers were combined to get a total count of low-income students. To determine the number of high-income students, research assistants subtracted the low-income total from the total number of students in Minnesota. Consistent with the rest of the report, low-income and middle- and high-income students identified in this report represent 9th through 12th grade students. Two programs, AP and IB, calculate low-income status by different methods, explained in more detail in Part III.

Statewide data was not available for Concurrent Enrollment before FY 2008 so analysis of Concurrent Enrollment participation is limited to data from FY 2008 to FY 2010.

Concurrent Enrollment racial demographic and Free and Reduced Lunch data was reported in percentages from the Minnesota Department of Education and calculated by the Center for School Change research assistant. CSC chose to convert the percentages rounded to the nearest whole number for consistency in the report. These numbers are not exact and provide an estimation calculated by the Center for School Change.

This report counts only public school students who participate in Dual Credit programs, though private and home school students also participate in programs such as PSEO.

The report also includes some statements from Minnesota students who participated in Dual Credit courses. These statements help to give student perspectives on these programs. The comments were gathered and included in a separate CSC publication that is distributed to metro area students and families.¹ The booklet was produced under contract with the Minnesota Department of Education.

In the Appendix, some PSEO students use the term “College in the Schools.” This refers to the University of Minnesota’s Concurrent Enrollment program and is often used to refer to all Concurrent Enrollment programs in Minnesota.

In comparing relevant populations, this report recognizes that

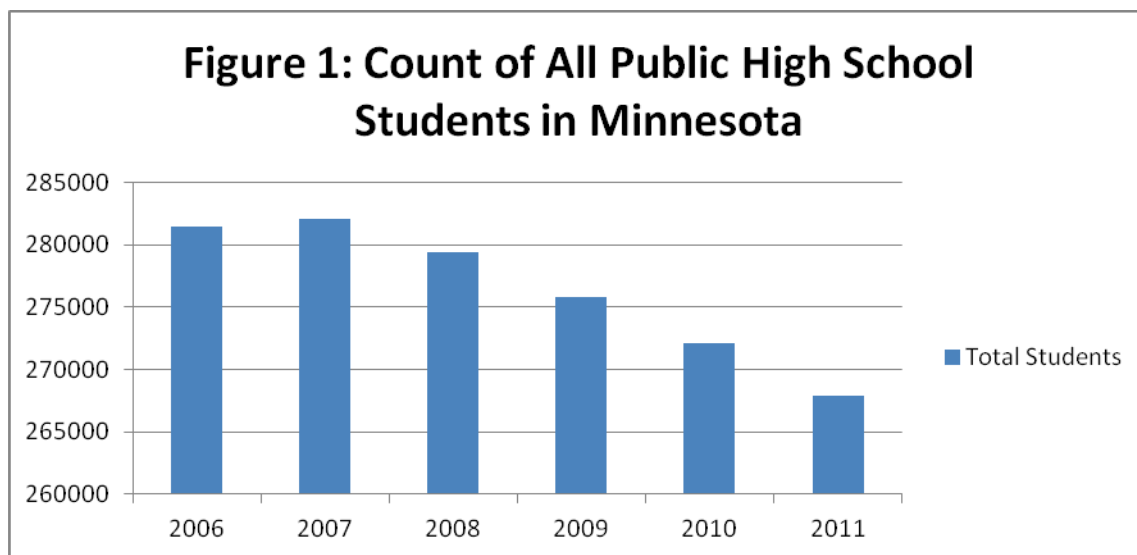
- Between FY 06 and FY 11, Minnesota 9th-12th graders can take Advanced Placement courses and examinations for high school and college credit. Thus, the relevant comparison group is Minnesota students, grades 9-12.
- Between FY 06 and FY 11, only Minnesota 11th and 12th graders can take IB exams, Concurrent Enrollment and PSEO courses for high school and college credit. Thus, the relevant demographic comparison group for participants in these Dual Credit programs is the demographics of Minnesota students grades 11-12. The report provides data allowing these comparisons to be made.

¹ Lee, P. (2011, June 30). *Get a Jump Start on Your Future!* Center for School Change.

Part I: General Dual Credit Participation Trends

Minnesota High School Population Data

Between FY 2006 and FY 2011, the total number of public high school students in the state decreased by 13,640 students, or 5%.



Source: Minnesota Department of Education Website Data Archives

Table 1: Count of All Public High School Students in Minnesota						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Total Students	281,484	282,117	279,398	275,839	272,140	267,844

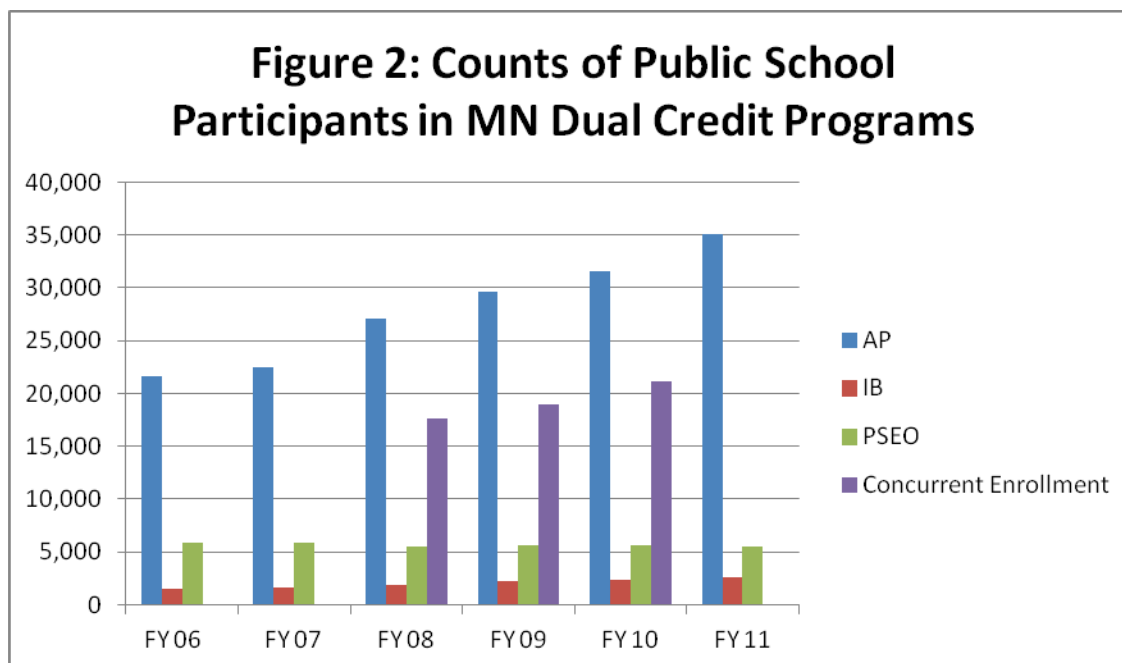
Source: Minnesota Department of Education Website Data Archives

Table 1a: Count of 11th & 12th Grade Public High School Students in Minnesota						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Total Students	141,138	143,680	143,350	142,202	141,397	138,998

Source: Minnesota Department of Education Website Data Archives

Minnesota Dual Credit Participant Data

While the number of public high school students decreased, Dual Credit participation by public high school students increased overall between 2006 and 2011.



Source: Minnesota Department of Education. Note: AP and IB numbers reflect the number of students who took exams only. For IB, this includes the exam-takers who were enrolled in the full Diploma Program and those who took IB courses but were not enrolled in the program. PSEO numbers reflect the number of students who were reported to the state for the purpose of reapportioning per capita funds to post secondary institutions; this number excludes students who attended high schools that contracted directly with postsecondary institutions. Concurrent Enrollment numbers reflect the total number of students enrolled in Concurrent Enrollment program reported to MDE.

Table 2: Count of MN Public School Participants in Dual Credit Programs						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
AP	21,612	22,525	27,055	29,588	31,551	35,091
IB	1,478	1,642	1,871	2,196	2,330	2,602
PSEO	5,854	5,845	5,546	5,688	5,620	5,476
Concurrent Enrollment			17,581	18,940	21,184	

Source: Minnesota Department of Education. Note: The grey boxes indicate data unavailable at the time this report was written. Data was not available for Concurrent Enrollment for the years FY 06, FY 07, and FY 11.

Student participation in three of the four Dual Credit programs surveyed for this report increased between FY 2006 and FY 2011. Both Advanced Placement (AP) and International Baccalaureate (IB) marked significant gains in exam takers. It is possible that these programs

grew even more than the numbers suggest given that only students who took the exams were counted. Participation in AP exams grew by 62% and participation in IB exams grew by 76% from 2006 to 2011. Although the two programs experienced similar percentage increases, the AP program already had much higher exam participation in FY 2006 than the IB program did (21,612 in the AP program versus 1,478, in the IB program); consequently, the total number of students taking AP exams experienced a much larger increase during this four year period.

Concurrent Enrollment also experienced growth; however, we cannot determine how rapidly the Concurrent Enrollment program has grown over the past five years to make a comparison as the state has only three years of data. Additionally, in FY 2011, new legislative language came into effect that limited funding to high schools that had partnerships with post secondary institutions that were accredited by NACEP (National Alliance of Concurrent Enrollment Partnerships) or were shown to be of comparable quality to accredited courses. Only qualified high schools that applied are included in these numbers, though other high schools continued offering Concurrent Enrollment. The data suggests that there was an increase in participation between FY 2008 and FY 2010 of 20%. Though this data may under-represent participation, we can note that Concurrent Enrollment is the second largest dual credit program, serving more than seven times as many students as IB in FY 2011 and a little more than half of the number of students served by the AP program in FY 2011.

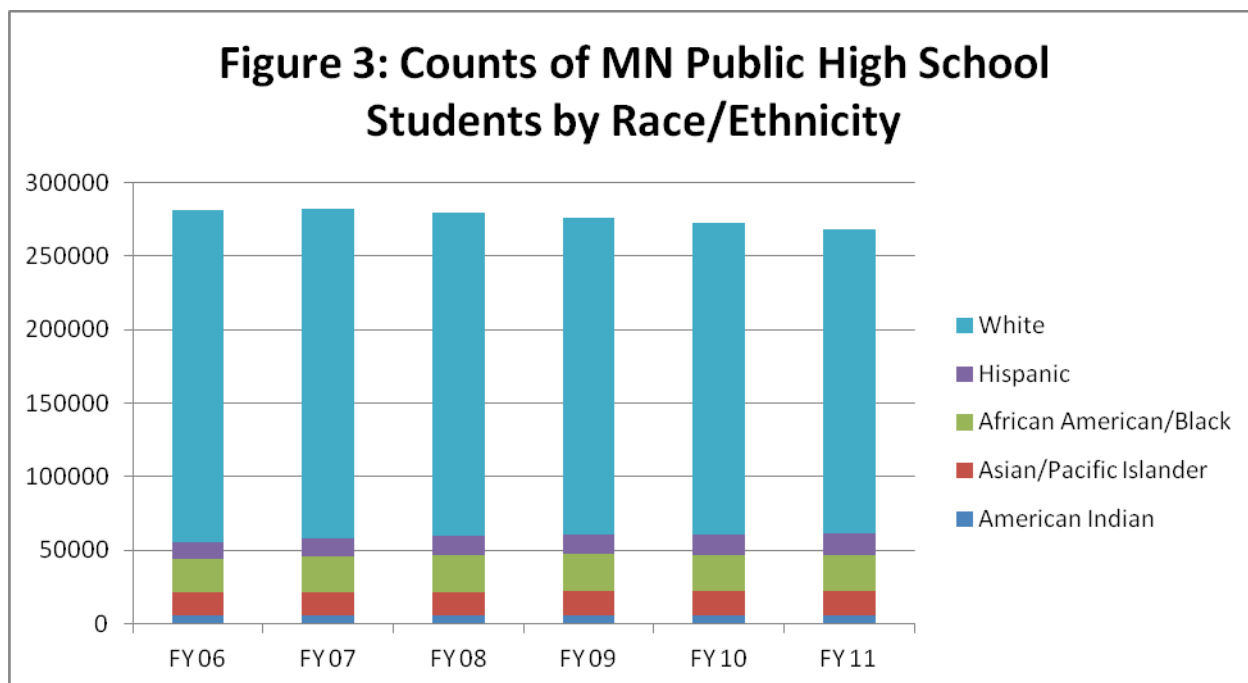
Unlike AP, IB and Concurrent Enrollment, Postsecondary Educational Options (PSEO) saw a decline in participation: a 4% decrease in total number of students who took PSEO classes between FY 2006 and FY 2011. However, there was an increase in the number of students of color and students from low-income families who participated in PSEO.

In FY 2011, 35,091 students participated in the AP program (as measured by exam taking), 2,602 in the IB program (as measured by exam taking), and 5,476 in the PSEO program (as measured by enrollment). In FY 2010, the most recent year for which there is Concurrent Enrollment data, 21,184 students participated in the Concurrent Enrollment program (as measured by enrollment). Unfortunately, an aggregate total of the number of students participating in Dual Credit programs across the state is impossible to calculate because some high school students enroll in multiple programs. However, the data show that Dual Credit participation is increasing in Minnesota, especially in the large AP program and much smaller IB program.

Part II: Dual Credit Participation by Race

Minnesota Racial Demographic Data

In general, the population of Minnesota public high school students is becoming more diverse as the total number of students is decreasing slightly and the number of students of color is increasing. Though the increase has been relatively small, in FY 2006, students of color were almost one-fifth of the total number of students in high school in the state (19.5%), but by FY 2011, students of color represented more than one-fifth of that group (23%).



Source: Minnesota Department of Education Website Data Archives

Table 3: Counts of MN Public High School Students by Race/Ethnicity						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
American Indian	5,817	5,920	5,807	5,768	5,628	5,495
Asian/Pacific Islander	15,592	15,861	16,092	16,318	16,377	16,641
Black	22,438	24,463	24,962	25,248	25,040	24,991
Hispanic	11,245	12,103	12,583	13,430	14,098	14,530
White	226,392	223,770	219,954	215,075	210,997	206,187
Total Students of Color	55,092	58,347	59,444	60,764	61,143	61,657
Total Students	281,484	282,117	279,398	275,839	272,140	267,844

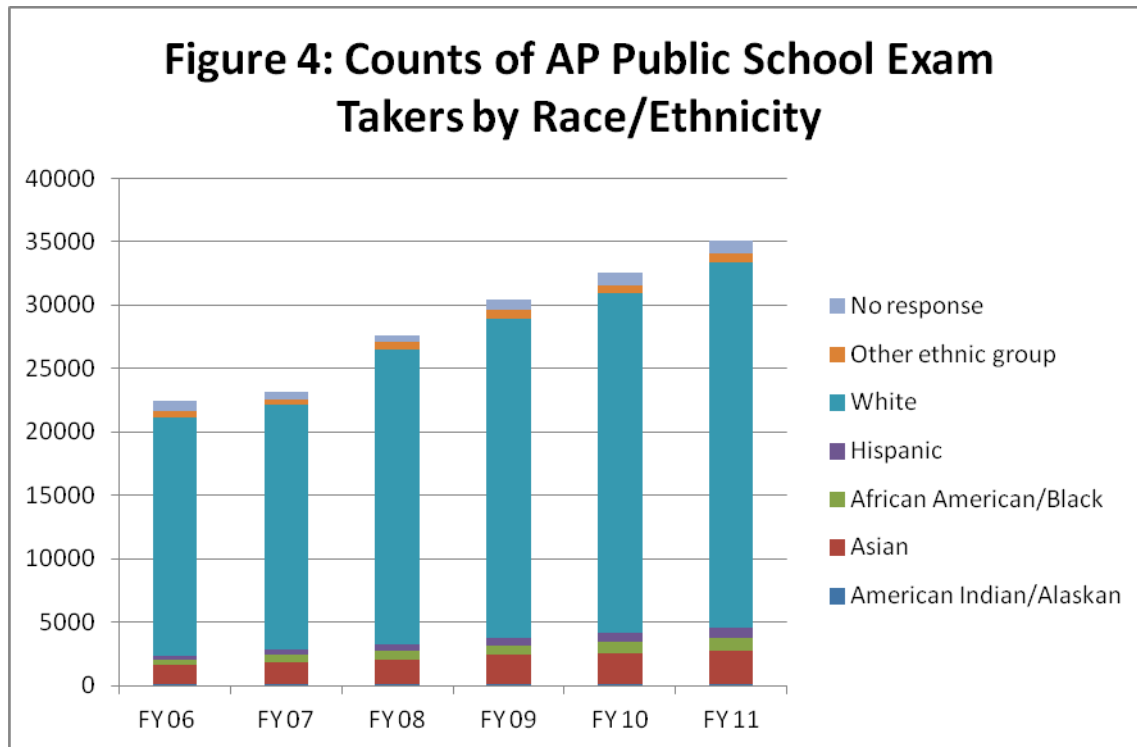
Source: Minnesota Department of Education Website Data Archives

Table 3a: Counts of MN 11th & 12th Grade Students of Color						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Total Students of Color	26,282	28,349	29,734	30,873	31,517	31,735
Total Count of Students	141,138	143,680	143,350	142,202	141,397	138,998

Source: Minnesota Department of Education Website Data Archives

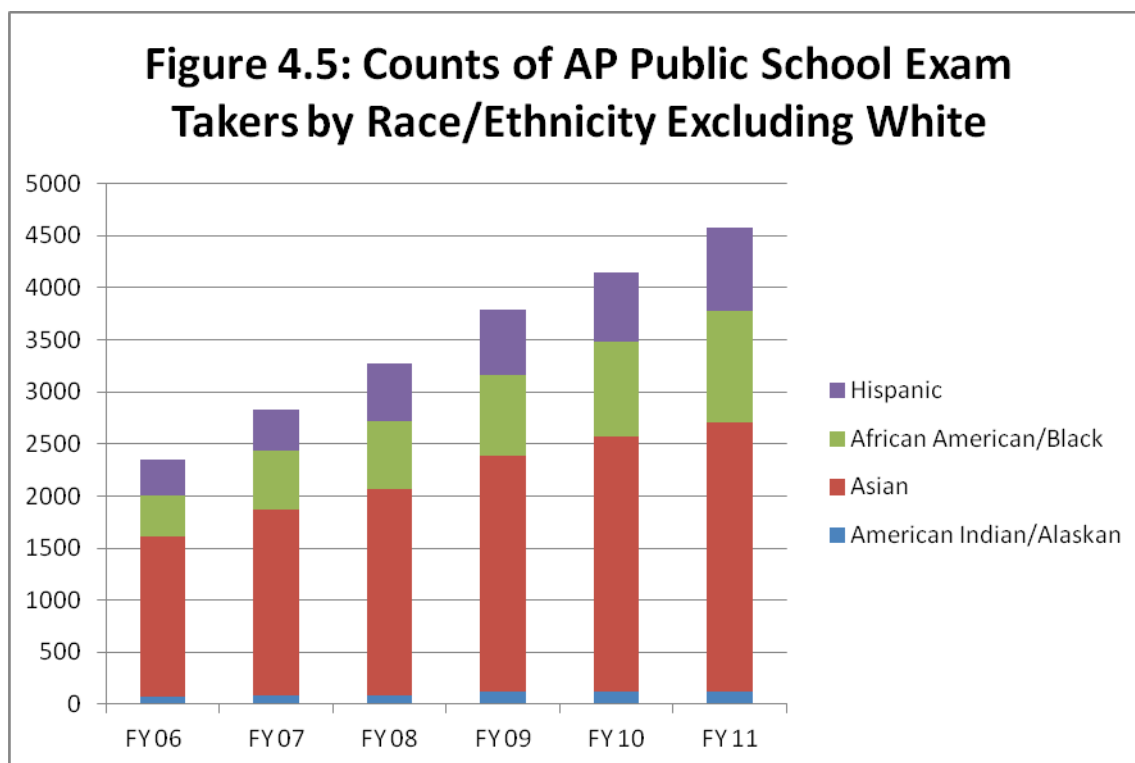
Advanced Placement

Overall, the number of students of color who took AP exams increased by 53% between FY 2006 and FY 2011. The number of White students increased by 53% as well.



Source: The College Board

The following chart excludes students who are White to better see the changes in the number of students of color taking AP exams.



Source: The College Board

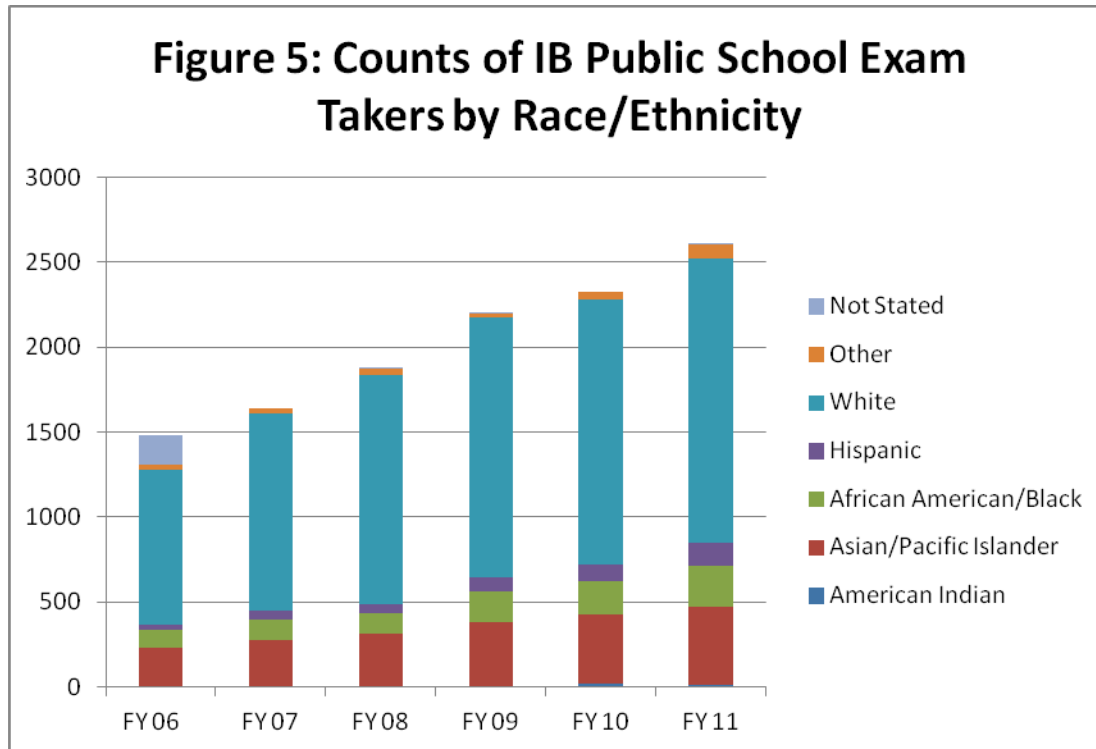
The numbers of Hispanic and African American students taking exams more than doubled between FY 2006 and FY 2011. This is significant given that exam participation overall increased by only 62%. The number of Asian students increased by about 70% and the number of American Indian students, though much smaller to begin with, increased by 62%.

Table 4: Counts of AP Public School Exam Takers in MN by Race/Ethnicity						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
American Indian/Alaskan	79	89	92	119	120	128
Asian	1,528	1,778	1,979	2,272	2,446	2,581
African American/Black	401	566	652	775	920	1,061
Hispanic	342	393	544	616	658	810
White	18,812	19,293	23,236	25,181	26,785	28,755
Other ethnic group	450	406	552	625	622	714
No response	857	639	550	804	990	1,042
Total Students of Color	2,800	3,232	3,819	4,407	4,766	5,294
Total Students	21,612	22,525	27,055	29,588	31,551	35,091

Source: The College Board

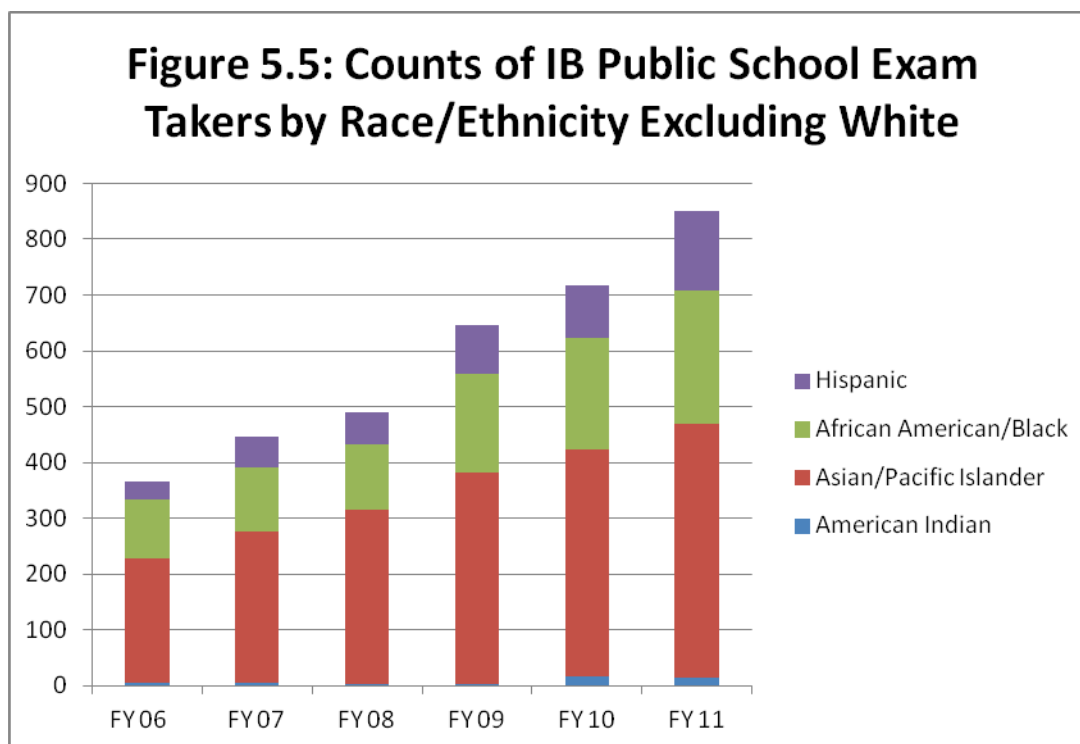
International Baccalaureate Diploma Program

The number of students in all racial groups who took IB exams experienced significant increases between FY 2006 and FY 2011. The number of White students increased the least, by 83%.



Source: International Baccalaureate. Note: International Baccalaureate began collecting racial demographic data in FY 2006. The sudden decrease in students of non-stated race between FY 2006 and FY 2007 is likely a result of changes in the reporting of the racial demographics question after the first year.

The following chart excludes students who are White to better see the changes in the number of students of color taking IB exams.



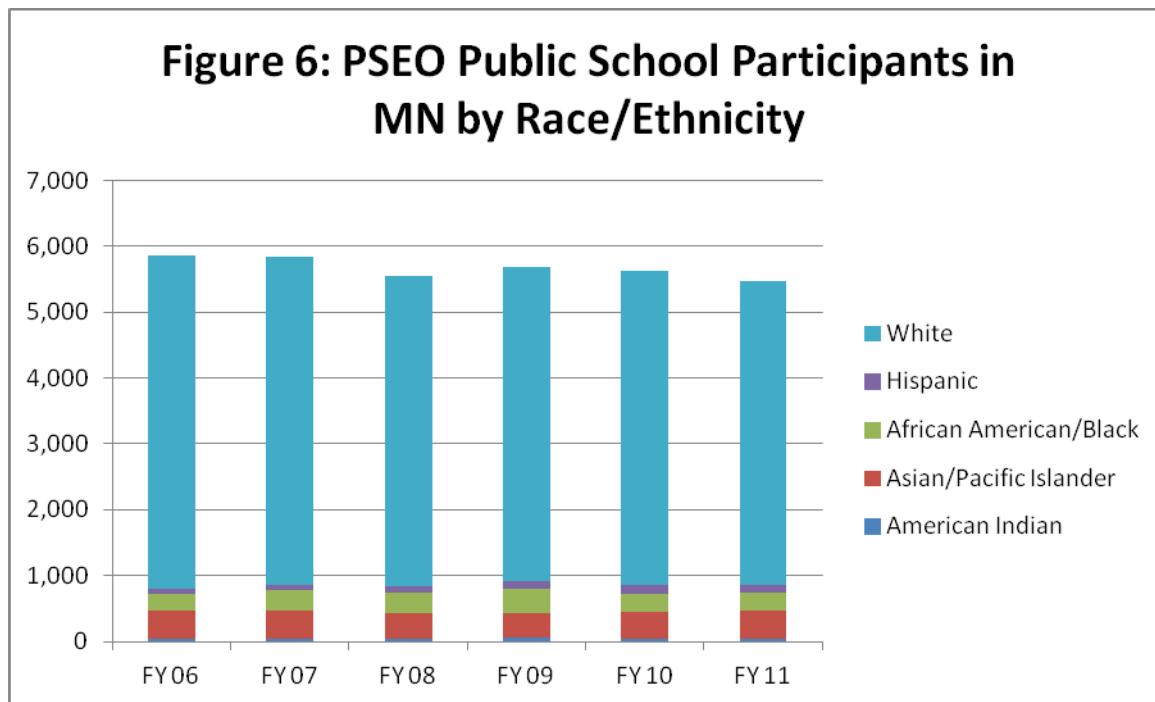
Source: *International Baccalaureate*

The total number of students of color who took the IB exams more than doubled between FY 2006 and FY 2011 (136% increase). The number of Hispanic students experienced the greatest increase, more than quadrupling over the five-year period from 32 to 141. Though a very small number to begin with (5 students), the number of American Indian students increased by 160% (to 13 students). The number of African American students increased by a significant 124%, and the number of Asian students similarly increased by 105%.

Table 5: Counts of IB Public School Exam Takers in MN by Race/Ethnicity						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
American Indian	5	5	3	3	17	13
Asian/Pacific Islander	222	271	311	379	406	456
African American/Black	107	116	118	176	201	240
Hispanic	32	55	57	87	93	141
White	909	1,161	1,346	1,528	1,561	1,669
Other	29	34	34	22	50	82
Not Stated	174	0	2	1	0	1
Total Students of Color	395	481	523	667	767	932
Total Students	1,478	1,642	1,871	2,196	2,328	2,602

Source: International Baccalaureate

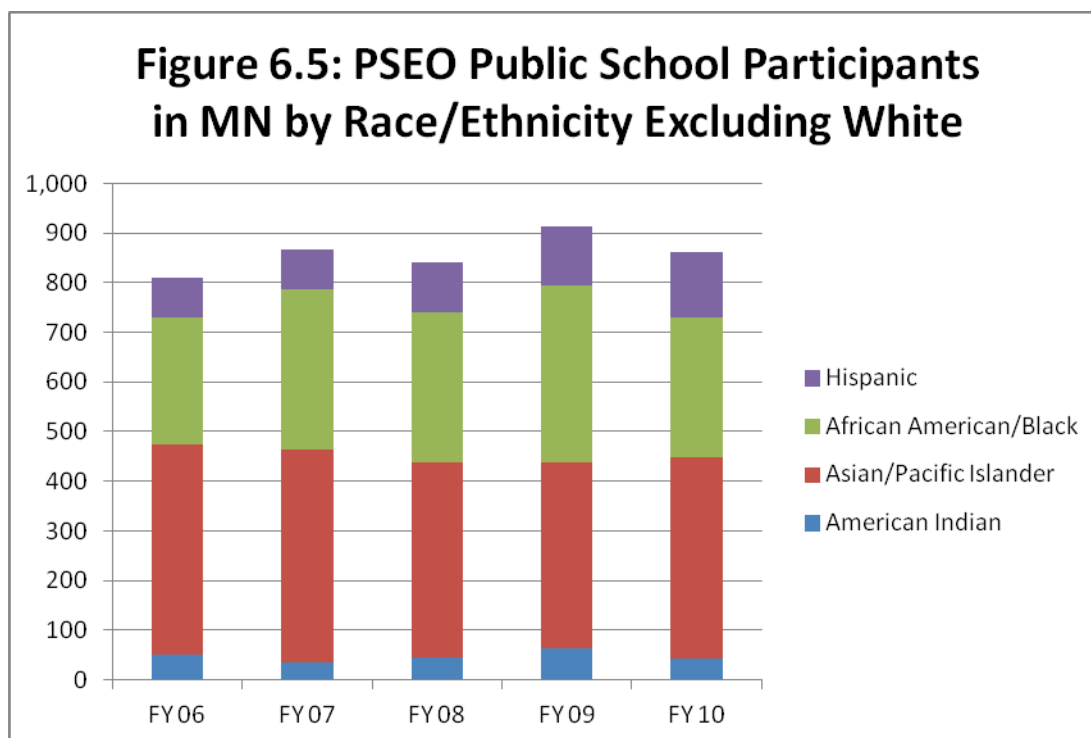
Postsecondary Education Options



Source: Minnesota Department of Education. Note: As stated previously, these numbers reflect only the students attending schools that report their numbers to the state, not the students at schools that have contracts with postsecondary institutions.

Overall PSEO participation declined slightly between FY 2006 and FY 2011 and only saw small changes by race. The number of White students decreased by 6%; in contrast, the number of students of color increased by 6%.

The following chart excludes students who are White to better see the changes in the number of students of color in PSEO programs.



Source: Minnesota Department of Education

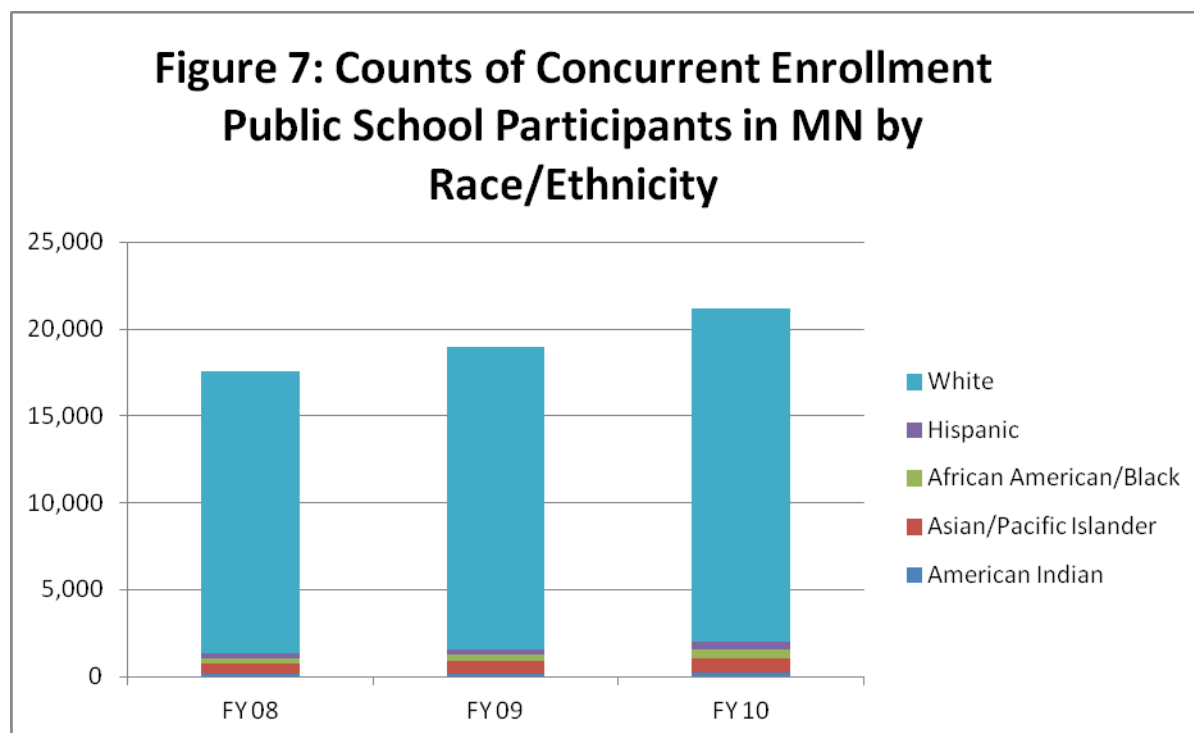
The numbers of American Indian and Asian students decreased slightly, by 16% and 4% respectively. The number of African American students increased by 9% and the number of Hispanic students, though quite small to begin with, increased by 65%.

Table 6: Counts of PSEO Public School Participants in MN by Race/Ethnicity						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
American Indian	51	36	46	64	43	42
Asian/Pacific Islander	422	427	391	373	405	422
African American/Black	256	323	304	357	281	274
Hispanic	80	82	100	119	132	123
White	5,045	4,977	4,705	4,775	4,759	4,615
Total Students of Color	809	868	841	913	861	861
Total Students	5,854	5,845	5,546	5,688	5,620	5,476

Source: Minnesota Department of Education

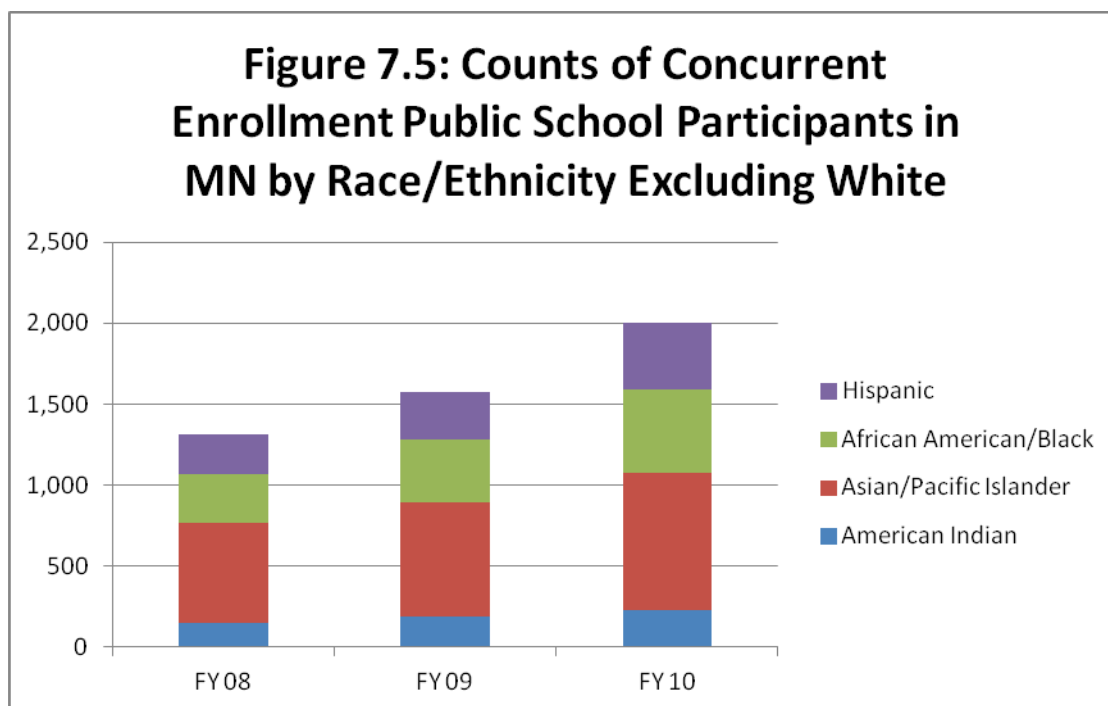
Concurrent Enrollment

As already noted, Concurrent Enrollment experienced more moderate growth than the AP and IB programs; however, the participation of students of color increased at a greater rate than that of White student participation (52% compared with 18%). However, data gathering methods and contextual factors (explained in Part I and below) suggest that the numbers may under-represent the growth of the program.



Source: Minnesota Department of Education. Note: Concurrent Enrollment data may under-represent the growth of the program because in FY 2011 new legislative language came into effect that limited funding to high schools that had partnerships with post secondary institutions that were accredited by NACEP (National Alliance of Concurrent Enrollment Partnerships) or were shown to be of comparable quality to accredited courses. Only qualified high schools that applied to receive funding are included in these numbers, though other high schools continued offering Concurrent Enrollment. Because of this, these numbers may under-represent Concurrent Enrollment participation.

The following chart excludes students who are White to better see the changes in the number of students of color in Concurrent Enrollment programs.



Source: Minnesota Department of Education. These are estimated counts of Concurrent Enrollment students of color participants. Note: The racial demographic data was reported in percentages and calculated by the Center for School Change. CSC chose to convert the percentages rounded to the nearest whole number for consistency in the report. These numbers are not exact and provide an estimation calculated by the Center for School Change.

Based on this data, the number of Hispanic students experienced an increase of 70% between FY 2008 and FY 2010, while the number of African American students saw an increase of 71%. American Indian participation increased by 57% and Asian participation increased by 36%.

Table 7: Estimates of Concurrent Enrollment Public School Participants in MN by Race/Ethnicity				
	FY 08	FY 09	FY 10	FY 11
American Indian	144	188	227	
Asian/Pacific Islander	624	705	847	
African American/Black	301	388	513	
Hispanic	244	294	413	
White	16,268	17,366	19,184	
Total Students of Color	1,313	1,574	2,000	
Total Students	17,581	18,940	21,184	

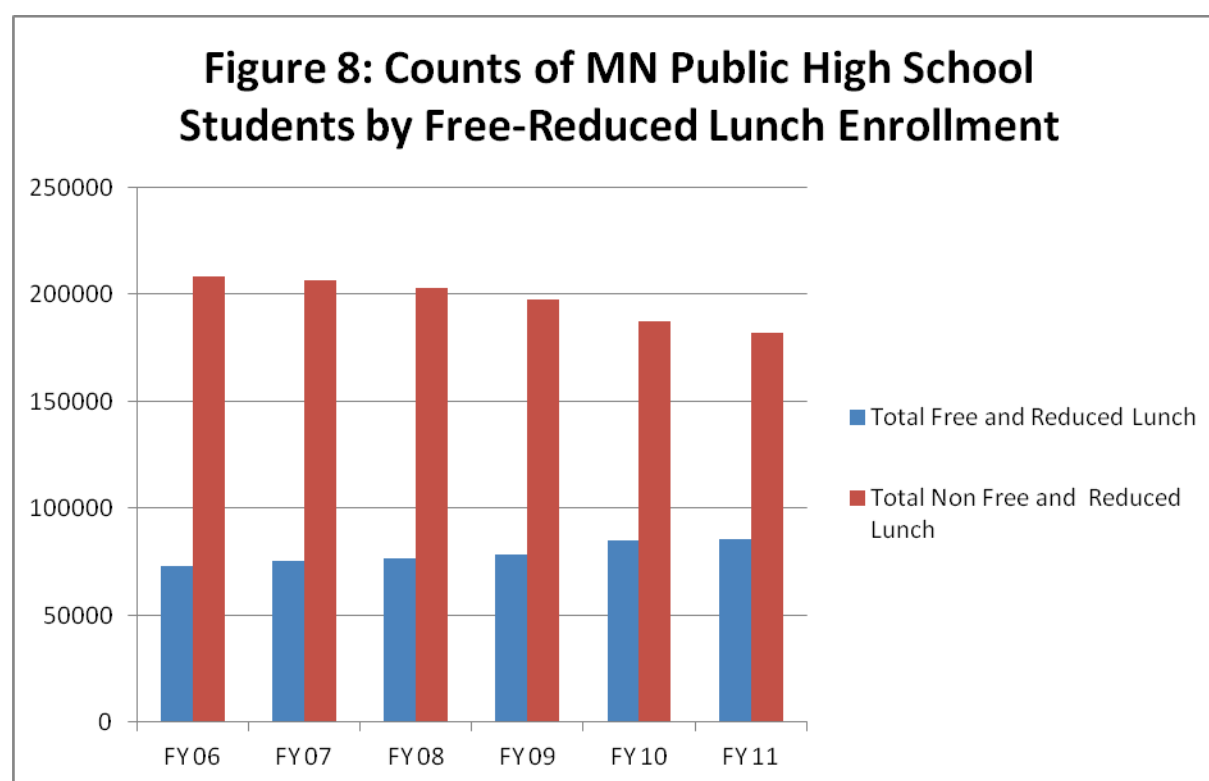
Source: Minnesota Department of Education. Note: The racial demographic data was reported in percentages and calculated by the Center for School Change. CSC chose to convert the percentages rounded to the nearest whole number for consistency of the report. These numbers are not exact and provide an estimation calculated by the Center for School Change.

Part III: Dual Credit Participation by Socioeconomic Status

Minnesota Low-Income Demographic Data

This report determines the low-income status of students by enrollment in the federal Free and Reduced Lunch program. The government calculates the number of Free and Reduced Lunch students based on family income. These numbers may under-report low-income students because not all families who qualify may enroll their children in the program. The Free and Reduced Lunch data used in this report was collected from the Minnesota Department of Education website. MDE notes that AP and IB provide waivers to students in test-taking fees, based on a student/family self-report on whether they are eligible for free/reduced lunch. Generally test coordinators verify this data with the school.

The income status of the general high school population in Minnesota changed less drastically between FY 2006 and FY 2011 than did the income status of students in Dual Credit programs. The number of low-income students enrolled in high school across the state increased by 17%, while the number of middle- and high-income students decreased by 13%.



Source: Minnesota Department of Education Website Data Archives. Note: Income status was determined by enrollment in Free and Reduced Lunch programs. The Center For School Change combined the “Free Lunch” and the “Reduced Lunch” numbers to calculate a total count of low-income students. To determine the number of high-income students, CSC subtracted the low-income total from the total number of public high school students in Minnesota.

Table 8: Counts of MN Public High School Students by Free-Reduced Lunch Enrollment						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Free Lunch	55,468	57,014	58,311	59,396	65,683	66,195
Reduced Lunch	17,539	18,359	18,252	19,093	19,274	19,478
Total Free and Reduced Lunch	73,007	75,373	76,563	78,489	84,957	85,673
Total Non-Free and - Reduced Lunch	208,477	206,744	202,835	197,350	187,183	182,171

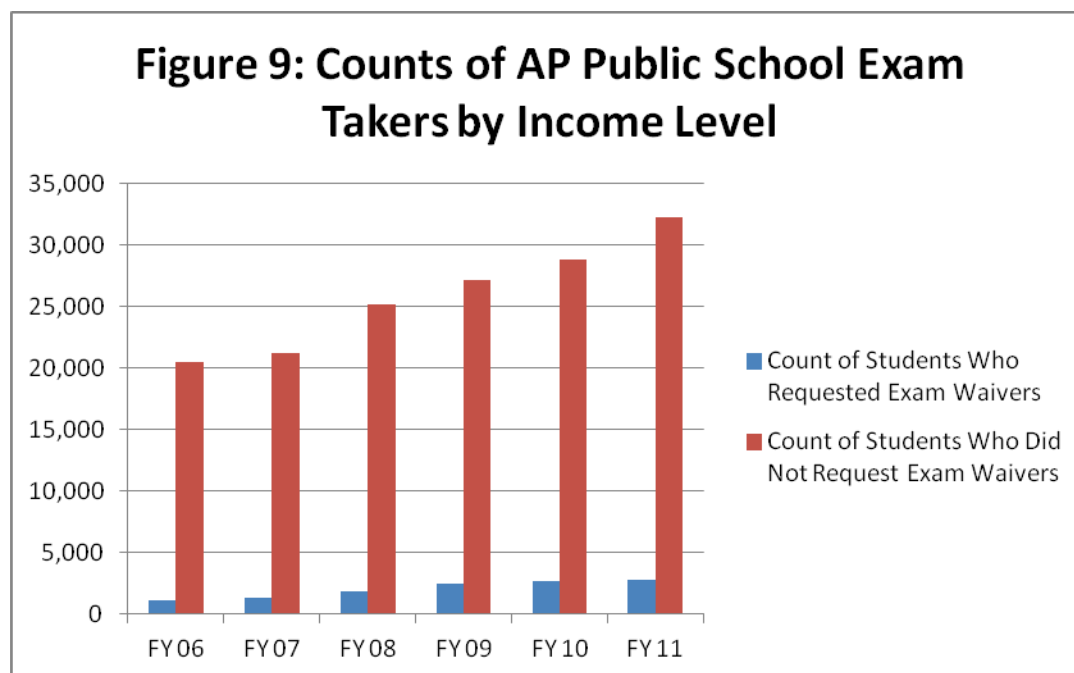
Source: Minnesota Department of Education State Website Data Archives

Table 8a: Counts of MN 11th & 12th Grade Public High School Students by Free-Reduced Lunch						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Total Free/Reduce Lunch Students	32,886	34,536	36,151	38,075	42,371	42,625
Total Count of Students	141,138	143,680	143,350	142,202	141,397	138,998

Source: Minnesota Department of Education State Website Data Archives

Advanced Placement

The chart below shows that both the number of low-income and middle- and high-income AP exam takers increased between FY 2006 and FY 2011, consistent with the trend of overall participation increasing in the AP program by about 60%.



Source: Minnesota Department of Education. Note: This data was collected by the Minnesota Department of Education based on low-income counts from AP coordinators at the high school sites that requested reimbursement from the state for AP exams.

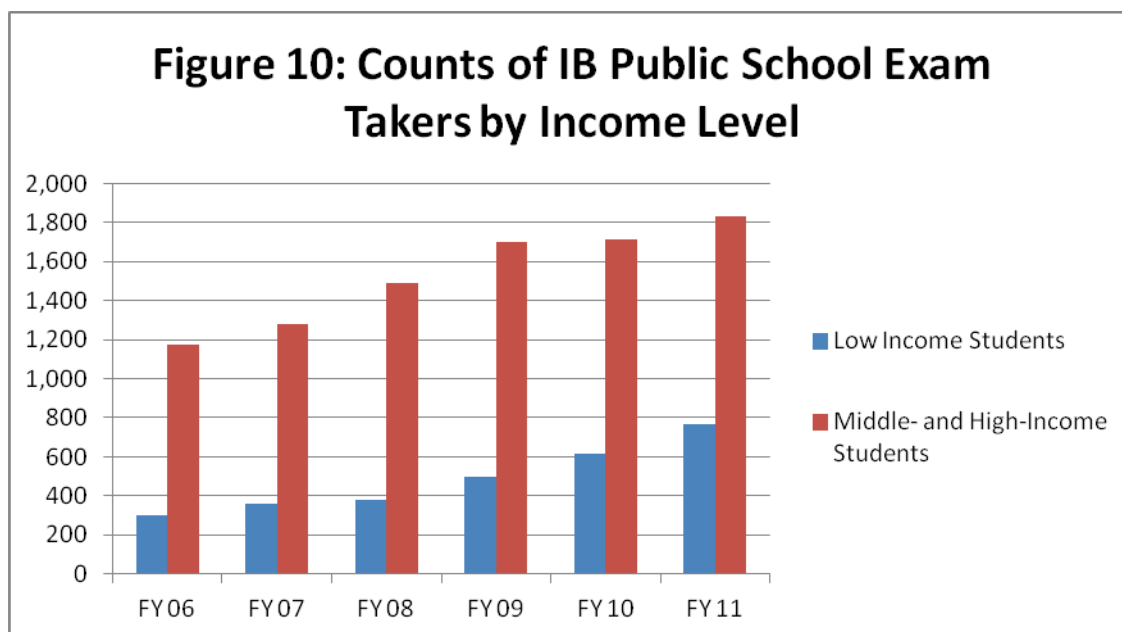
Table 9: Counts of AP Public School Exam Takers in MN by Income Level						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Count of Students Enrolled in Free and Reduced Lunch	1,141	1,353	1,887	2,438	2,713	2,828
Count of Students Not Enrolled in Free and Reduced Lunch	20,471	21,172	25,168	27,150	28,838	32,263
Count of Low-Income Exams	1,685	1,995	2,413	3,027	3,875	4,406

Source: Minnesota Department of Education.

Significantly, the number of low-income exam takers more than doubled, increasing from 1,141 to 2,828 (an increase of 148%). The number of middle- and high-income students experienced a more modest increase of 58%. However, given that there were about 20 times as many middle- and high-income students as low-income students taking exams in 2006, the increase in total number of middle- and high-income students was more than 6 times the increase in low-income students (an increase of 11,800 versus an increase of 1,687).

International Baccalaureate Diploma Program

The total number of IB exam takers, both low-income and middle- and high-income students, increased significantly between FY 2006 and FY 2011. However, the number of low-income IB students increased at a far higher rate than middle- and high-income students. The number of low-income students increased by 150%, while the number of middle- and high-income students increased by only 55%. Interestingly, growth climbed for middle- and high-income students between FY 2006 and FY 2008, then slowed from FY 2009 to FY 2011, while the number of low-income student exam takers remained almost the same from FY 2007 to FY 2008, then began to increase significantly from FY 2009 to FY 2011.



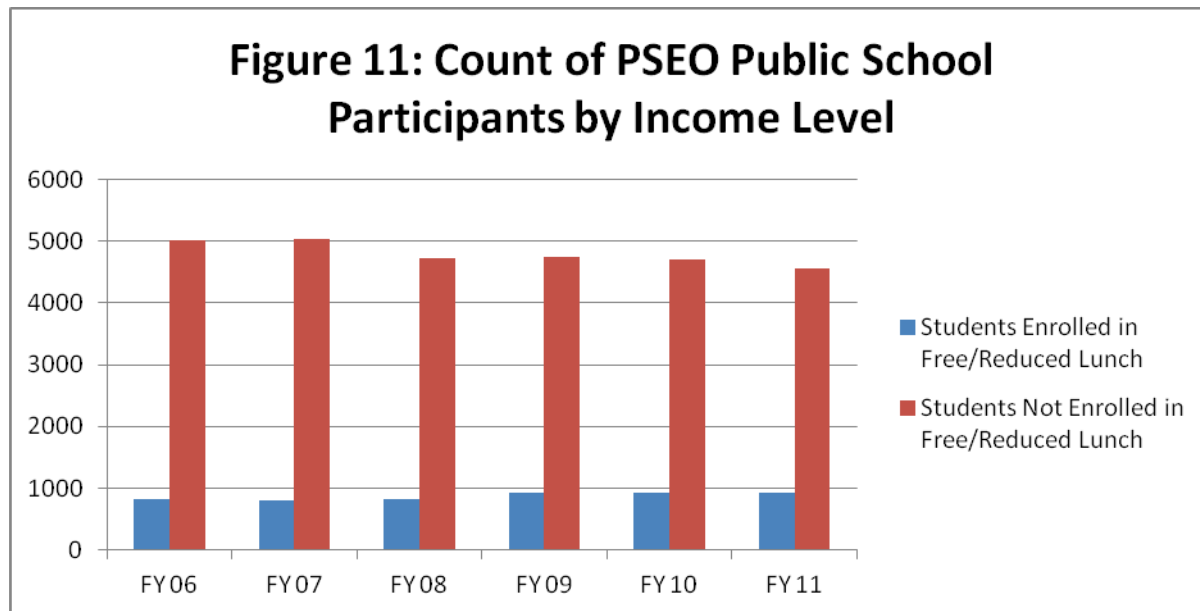
Source: International Baccalaureate

Table 10: Counts of IB Public School Exam Takers in MN by Income Level						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Low Income Students	302	361	379	498	617	767
Middle- and High-Income Students	1,176	1,281	1,492	1,698	1,713	1,835
Low Income Exams	623	753	795	1,050	1,371	1,578
Total Students Taking Exams	1,478	1,642	1,871	2,196	2,330	2,602
Total Exams Taken	3,071	3,410	3,932	4,549	5,450	6,008

Source: International Baccalaureate

Postsecondary Education Options

PSEO participation by public high school students stayed basically static between FY 2006 and 2011, experiencing a small decrease during that time period. Though participation by income level did not change much either, it was not entirely static: low-income participation increased by 11% while middle- and high-income participation decreased by 9%.



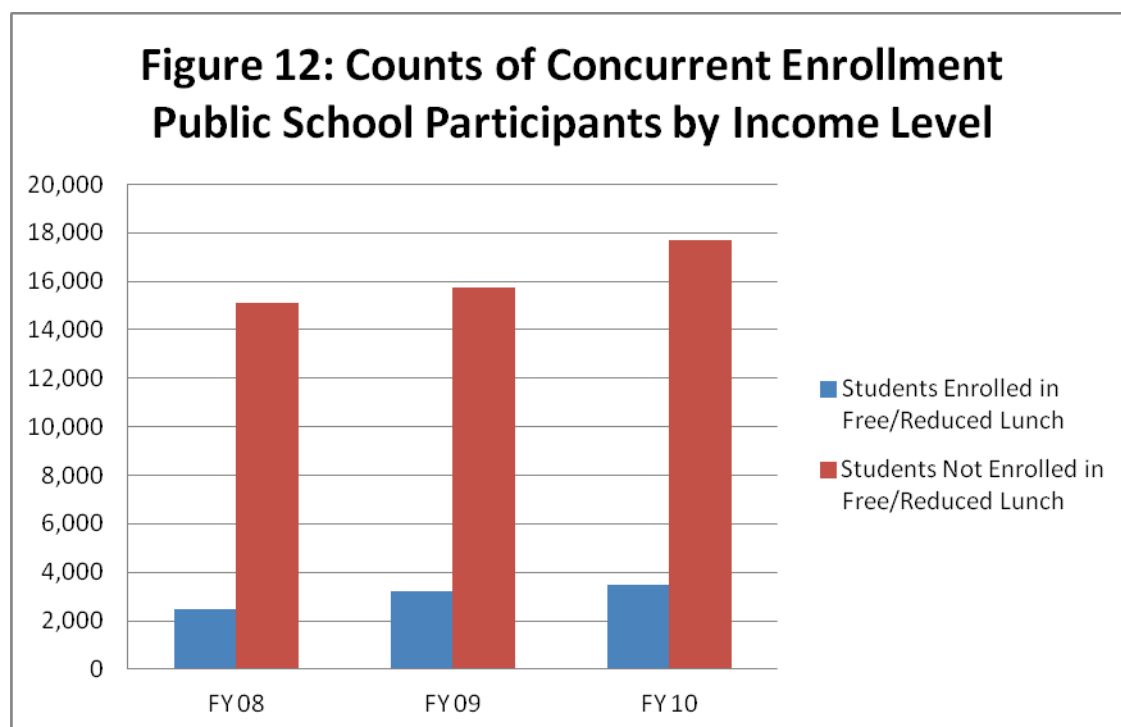
Source: Minnesota Department of Education. Note: Income level was determined by enrollment in the Free and Reduced Lunch program.

Table 11: Count of PSEO Public School Participants in MN by Income Level						
	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Low-Income Students	832	815	828	939	921	920
Middle- and High-Income Students	5,022	5,030	4,718	4,749	4,699	4,556

Source: Minnesota Department of Education

Concurrent Enrollment

As already stated, overall participation in Concurrent Enrollment increased by 20% between FY 2008 and FY 2010. Participation by low-income students increased at twice the rate of overall participation, by 40%. The number of middle- and high-income students increased more moderately, by 17%.



Source: Minnesota Department of Education. Note: Income level was determined by enrollment in the Free and Reduced Lunch program. These are estimated counts of Concurrent Enrollment Free/Reduced Lunch participants. Note: The Free and Reduced Lunch data was reported in percentages and calculated by the Center for School Change. CSC chose to convert the percentages rounded to the nearest whole number for consistency of the report. These numbers are not exact and provide an estimation calculated by the Center for School Change.

Table 12: Estimates of Concurrent Enrollment Public School Participants Enrolled in Free/Reduced Price Meals				
	FY 08	FY 09	FY 10	FY 11
Students Enrolled in Free/Reduced Lunch	2,479	3,201	3,474	
Students Not Enrolled in Free/Reduced Lunch	15,102	15,739	17,710	

Source: Minnesota Department of Education. Note: The Free and Reduced Lunch data was reported in percentages and calculated by the Center for School Change. CSC chose to convert the percentages rounded to the nearest whole number for consistency of the report. These numbers are not exact and provide an estimation calculated by the Center for School Change.

Comparing participation in Dual Credit Courses with the most appropriate group of students.

Earlier, this report compared demographics of students participating in four Dual Credit programs with demographics of Minnesota students enrolled in grades 9-12 over the last six years. However, another way to compare participation is to examine percentages of students in each of the programs with the exact population of students who are eligible to participate.

So, for example, earlier charts compared demographics of students who took Advanced Placement examinations with demographics of grades 9-12 Minnesota public school enrollment. These comparisons seem appropriate because students grades 9-12 were/are allowed and, did enroll in Advanced Placement courses and take examinations for which they could earn high school and college credit.

However, up until the school year 2011-12, enrollment in International Baccalaureate, Concurrent Enrollment and Post-Secondary Enrollment Options that allow students to earn high school and college credit has been available only to students enrolled in the 11th and 12th grade. The 2011 Minnesota state legislature expanded this by making Concurrent Enrollment available on a limited basis to 9th and 10th graders. The situation remains as it has been for IB and PSEO enrollment.

Thus, the following chart allows a comparison of enrollment and demographics in IB exam takers and PSEO participants with overall demographics of 11th and 12th graders in the 2010-11 school year. It also compares demographics of Concurrent Enrollment with those of Minnesota's public school 11th and 12th for the 2009 -10 school year, the latest year for which accurate information is available for Concurrent Enrollment.

Data from these comparisons show results similar to that provided earlier in the report. However, the authors thought the comparisons provided in the chart below were important to offer a full, accurate picture.

Numbers and Percentages of 11th & 12th Grade MN Public High School Students Participating in IB, PSEO, & Concurrent Enrollment Compared to All Public High School Students in Minnesota

	FY 11 MN Public School 11 & 12 Gr. Enrollment	FY 11 IB* Exam- takers 11 & 12 Gr.	FY 11 PSEO* Participants 11 & 12 Gr.	FY 10 MN Public School 11 & 12 Gr. Enrollment	FY 10 Concurrent Enrollment**
Total Number of Students	138,998	2,602	5,476	141,397	21,184
Free / Reduced Lunch	42,625	767	920	42,371	3,474
Percentage	31%	29%	17%	30%	16%
Students of Color	31,375	932	861	31,517	2,000
Percentage	23%	36%	16%	22%	9%
American Indian	2,707	13	42	2,846	227
Percentage	2%	0.50%	0.80%	2%	1%
Asian/Pacific Islander	8,761	456	422	8,572	847
Percentage	6%	18%	8%	6%	4%
Black	13,147	240	274	13,310	513
Percentage	9%	9%	5%	9%	2%
Hispanic	7,120	141	123	6,789	413
Percentage	5%	5%	2%	5%	2%
White	107,263	1669	4,615	109,880	19,184
Percentage	77%	64%	84%	78%	91%

Source: Minnesota Department of Education Website Data Archives

*IB & PSEO are compared with FY 11 data for 11th and 12th grades.

**Concurrent Enrollment is compared with FY10 for 11th and 12th grades.

Part IV: Key Findings

General Participation

Dual Credit participation on the whole increased while statewide high school enrollment declined slightly. AP and IB program participation (measured by the number of students taking exams) increased by more than 60% between FY 2006 and FY 2011. The total number of AP exam takers increased significantly more however, because the AP program is much larger than the IB program (in 2011, AP had more than 35,000 exam takers, while IB had less than 3,000).

PSEO participation (measured by the number of students taking classes) decreased slightly over the same five-year period, from 5,854 to 5,476 students (4%).

Concurrent Enrollment experienced an increase in participation (measured by the number of students taking classes) between FY 2008 and 2010, from 17,581 to 21,184 (20%).

Participation by Race

The number of students of color taking exams increased by half in the AP program and more than doubled in the IB program. This is significant, though the increase in the number (rather than percentage) of White students was generally larger because the White population in both programs was already so much larger in FY 2006. It is useful to compare this data with the data for the whole state. Between FY 2006 and 2011, the racial make-up of high school students in Minnesota went from less than one-fifth being people of color to more than one-fifth being people of color. Though the number of AP students of color increased significantly, it remained lower than the state average of students of color.

In IB, the percentage of students of color taking exams in FY 2011 was actually higher than the state average, with a little more than one-third of exam takers being students of color. In AP, though the number of students of color taking exams increased, the number of White students did also, so that percentage of students of color out of the whole increased by only a few percentage points between FY 2006 and FY 2011 (13% to 15%). The number of students of color taking PSEO classes fluctuated by a few percentage points, between 14% and 16%, over the same period.

In Concurrent Enrollment, the number of students of color taking classes increased more quickly than White student participation (by 52% as opposed to by 18%), but even with the increase, students of color made up less than one tenth of the total number of students in the program in FY 2010. (Additionally, it is difficult to chart broad trends with only three years of data.)

Though the percentage of students of color increased significantly in all programs, the percentages remained lower than the overall percentage of students of color in the state (23%). This was the case for AP (16% students of color in 2011), PSEO (also 16% in 2011), and Concurrent Enrollment (9% in 2010). The exception was IB, which had 36% students of color in the program in 2011.

Participation by Socioeconomic Status

For three of the four Dual Credit programs, the number of low-income students participating increased at a much higher rate than the number of middle- and high-income students. The number of low-income AP exam takers more than doubled and the number of low-income IB exam takers increased by 150%. The number of low-income students in Concurrent Enrollment increased by 40%. The numerical increases of low-income students in most of these programs were not as large as the numerical increases of middle- and high-income students due to of the small number of low-income students in FY 2006. PSEO was the one program where the number of low-income students increased modestly (10%).

As with racial diversity, socioeconomic diversity for all of the programs increased significantly but remained at or lower than the average for the state. The average for the state was 29% enrollment in the Free and Reduced Lunch program over the past six years. The percentage of low-income students was 8% for AP (in 2011), 29% for IB (in 2011), 17% for PSEO (in 2011), and 16% for Concurrent Enrollment (in 2010).

Part V: Conclusions and Recommendations

The conclusions and recommendations below are based on: a.) the literature review, b.) collected data in this report, and 3.) work done by the Center for School Change over several years with parents and students.

A. Conclusions:

- a. Legislative funding for AP, IB, and Concurrent Enrollment has contributed to the growth of these programs and provided access for students to participate in these programs.
- b. Research from Minnesota and other states shows considerable value to participation in some form of Dual Credit.
- c. A growing number of Minnesota low-income students and students of color are participating in some form of Dual Credit.
- d. Low-income students remain under-represented in most programs.
- e. Students of color remain under-represented in most programs.
- f. Dual Credit courses can be especially useful for some groups of students who are not succeeding in conventional high schools.

B. Recommendations:

- a. More information about Dual Credit options needs to be shared with families, especially low-income families and families of color.
- b. Policy-makers should consider expanding PSEO to give 9th and 10th graders limited opportunities to participate.
- c. Policy-makers should consider providing limited PSEO opportunities to students who are not eligible under current guidelines.
- d. The legislature should consider clarifying its expectations of post secondary institutions for methods of data collection in order to more accurately report Dual Credit participation.
- e. Additional research should be conducted with two and four year college graduates who did and did not participate in Dual Credit courses to learn more about the impact of these programs on their post-secondary careers.
- f. The legislature should consider removing the prohibition against colleges and universities advertising that students can save money by participating in Post-Secondary Enrollment Options.

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Appendix: Student Essays

By: Tong Vang
Harding High School
St. Paul, MN

During my sophomore year, I was very ambitious about college. It is a nerve-wrecking process being a first generation college student to think about college. As I was growing up, all that my parents ever dreamed for their kids was that we would be able to support ourselves and obtain higher education because both my parents never got the opportunity to attend College. With help from my high school counselor and my two college access program advisors from MEP (Multicultural Program of Excellence) and GEAR UP (Gaining Early Awareness for Undergraduate Programs), I was able to learn and participate in the Post-Secondary Enrollment Options Program (PSEO) and have taken a significant amount of college credits.

Though my school would have provided me with the academic curriculum I needed, I still wanted to challenge myself to see what college was like. I wanted to take a step out of my usual school environment and try something new. Having an earlier start in college would be better because it wouldn't be such a big transition when I eventually attend college in the fall. Though I have taken many risks to take college classes, it's worth it! Having successfully completed 60 college credits, after careful calculations, I have saved up to \$40,000 in tuition and books, and will graduate from college in the next two years after high school. Sixty credits is a lot of credits, one can easily fulfill two-year degree program or finish their general education classes for a four-year degree program.

I believe anyone can be successful in college. If you set your mind to it, you can surely achieve it. Taking the initiative by asking questions and doing research, I was able to learn about this wonderful program that in all 50 states, only Minnesota and Ohio offers. As well as being a college student I was able to utilize the support and services offered by the college. Doing so, I was able to plan ahead of time using the college's degree planner ensuring that I will graduate on time. Having obtained so much college credits I have lessened the financial worries that I could have had in the future with the addition that I will graduate before my high school class of 2011. This is really an amazing opportunity.

The PSEO Program doesn't just help one academically but personally too. Taking college classes as a high school junior and senior, I have learned many new things, became more mature, and made many new friends as well. This is a really wonderful program and I would highly recommend it to any junior or senior. All that I have to say is, if you're willing to try something different or new PSEO is the way to go. If you're up for a challenge, take advantages of the opportunities and resources available for college credit such as Post-Secondary Enrollment Options (PSEO), Advance Placement (AP), International Baccalaureate (IB), College in the Schools, and etc.

By: Dana Mansfield
DeLaSalle High School
Minneapolis, MN

Because I am a student of color, I sometimes feel like I have to work twice as hard to prove I am an intelligent human being because of what the media portrays. That being said, I feel as though it is almost a necessity for me to take advanced placement classes to break the stereotypes and to reach my abilities in the classroom.

I strongly advise students to participate in Advanced Placement programs because not only will they learn about their subject profoundly, but they will also learn about themselves. With the help of these classes, students will benefit by discovering their strengths and weaknesses, their study habits, and their individual wants and needs. Those who take this class will become better students, better learners, but most importantly they will become better people. It doesn't matter what race you are, how much money you have, or what your parent's do for a living, with the right effort, the right work ethic, and the right attitude, any willing student can thrive in these very demanding classes.

By: Oscar Enrique Perez
Community of Peace
St. Paul, MN

I was raised in a low-income family in the Public Housing townhouses of Saint Paul. As a child growing up, I was never interested academically in school. I knew what was to be done but neglected my obligations because I was not motivated by schoolwork. That all changed when I entered the 9th grade. I began to realize that in high school, grades have a greater impact on your future than the grades of elementary or middle school. As a result, I began to discipline myself.

I first became aware of the PSEO program in the fall 9th grade conferences and was convinced that it was a smart choice in preparing for my future. The only bad news was that I had to wait until I became a sophomore to apply and a junior to attend classes. Waiting was but a minor setback on my road to success. During the time allotted, I exhausted any and all possible challenges the school had to offer until it came time to apply to the PSEO program.

I am now currently taking Interpersonal Communication at Saint Paul College and believe that the class is not difficult to understand, granted that it is time consuming due to the reading requirements of the class. You have to learn how to transition from high school reading requirements of a few pages a night to college reading requirements of 80 pages per night. I am now able to boast that I have read and comprehended an entire college textbook by myself. I am also currently taking a Writer's Studio College in the Schools class or CIS for short. A CIS

class is a class where you are taking a college level class for both high school and college credits but with your high school teacher as the educator. I first became interested in CIS when I was told that it was a college level class. In my Writer's Studio class, I have set a standard for myself to get an A- or above on all the papers and anything below an A- would be devastating to my grade. This class is a little bit more challenging than my PSEO Interpersonal Communications class because the majority of the overall grade solely consists of successfully completing five papers. The class is not very difficult, but the thought of getting an upsetting grade on a paper does mess with your mind.

The main reasons I took PSEO and CIS classes are that they give you college credits and saves money. I'm not a very wealthy person, so the fact that PSEO and CIS offer free college classes and free college credits is great. I have taken full advantage of it. Overall, taking CIS and PSEO classes has been an enriching experience that has better prepared me for college.

By: Sukanya Momsen
Armstrong High School
Robbinsdale, MN

When the opportunity to do Post Secondary Enrollment Options (PSEO) first came up at my high school, I thought I might either miss out on my social life back at high school or that the rigor of freshmen college classes would be too easy for me. I was wrong about both. I did not do PSEO my junior year of high school, but one of my fellow classmates who did participate in the program during her junior year came back telling me how great her experience was. As a current PSEO student at the University of Minnesota, I have learned for myself what a great experience college can be. I have met many new friends and participated in many classes that seem to relate more to real-world situations. I couldn't be happier about my decision to do full-time PSEO my senior year.

Being a very social person, I was worried I would miss out on all the typical "senior" things like the senior panoramic. However, in reality, there are so many things one can do as a PSEO student at a college campus that simply cannot be duplicated in high school. In college, everything is sitting there right before you: all the social events, the great technology, and, of course, the learning. There is no way one can go through the day without socializing with some random student in the computer lab. I found myself walking with friends into their dorms, eating with friends in their dorms, and attending many dorm events (not to mention all the different clubs giving away free food during Welcome Week!). Although the University of Minnesota is a big school, I have never had the feeling that I am just one in a thousand. I constantly feel the importance of my role at the university, and I have even joined some clubs and student groups.

By: Lathe Morseth
Patrick Henry High School
Minneapolis, MN

I have had the fortune of living a life without hardship. I have, however, faced struggles. Struggles that I believe were well worth it.

Over the past four years of high school, I have been a part of the IB program. I have been challenged and pushed nearly to my limits, but I have also laughed and enjoyed the close friendships I have formed with my fellow IB classmates. It seems as if whenever things would become gray and discouraging, my friends would help me up and provide me with the essential boost to get back up on my feet and push forward. As I like to say, we're all in the same boat. I can rely on my friends to help me when I need it just as they can put their trust in me to be there for them whenever the time comes. The IB students at my school have become close, like a family. In the same way as family, we don't leave others behind. We're in it together.

International Baccalaureate, as it's called, was an area that I fell into, guided mostly by my family. My family would have supported me and have been proud of me regardless of my choice, but inside, I felt I was obligated to enroll in IB. Before me, my sister had gone to Patrick Henry High and was enrolled in the IB program. I felt almost required to follow in her steps and pursue a path of struggle in order to achieve the greater prize. I originally participated in the IB program because of my family. I wanted to make them proud by pursuing success through a path of struggle and difficulty. However, soon after I became an IB student at Patrick Henry, I no longer pushed myself for my family alone, but for myself as well. I knew that the IB program was good for my character and would help me succeed in college. I wanted to be prepared for college and for life, so IB was exactly what I needed.

One of the greater benefits of being in the IB program, I think, is how it has prepared me for college and beyond. The classes that I have taken and the rigor of the IB curriculum have pushed me farther to the side of the possible. At times, I almost regretted my decision to be an IB student, but I always had the notion in the back of my mind that the hard work and struggle was worth it. I feel that I am very well prepared for college, all thanks to the hard work and effort I put into my years in the IB program. If it weren't for IB, I probably would not be half as prepared for life after graduation as I am now.

Based on what I just said, IB sounds like a stressful four years, but also a shining path toward grandeur. IB has filled my life with meaning and purpose. I have become aware of my potential and of the possibilities. IB is not a program based on tedious work but a program built upon the pillars of human potential and achievability.

By: Alyssa Wong
Homeschool student

I discovered Post Secondary Enrollment Options (PSEO) during junior high school. Or perhaps it would be better to say that it was my parents who discovered PSEO? Whatever the case, my parents encouraged me to apply, and I'm happy that they did. Participating in the PSEO program allows a student to enroll in college classes while still in high school. While participating in PSEO, you are granted both high school and college credit. The fantastic part of this is that tuition and books are paid for!

Sometimes prospective PSEO applicants do not apply because they are worried about how they will fit in socially and academically. However, the fact is: while on campus, no one knows you are a PSEO student unless you tell them. Another thing that worries potential applicants, and worried me, is the application process. I think you should know that the application itself isn't that bad, waiting for an answer is the worst part!

The size of college classes can be daunting, but at the University of Minnesota there are usually two parts to your class: a large lecture and a small discussion section. My Japanese discussion class has only twenty-two students, while my Japanese lecture has sixty-six. The discussion section makes it easier to meet new people and socialize; it also provides a more personal environment with your professor. PSEO students are welcome to participate in the many festivals and events that take place on campus. For example, the Japan Student Association recently hosted a festival in which they served Japanese food, set up games and allowed students to try on kimonos! Occasionally, the PSEO board will set up Friday night activities, usually involving Annie's Parlour (YUM!) and a movie.

High school is a time brimming with excitement and anticipation. Above all, high school is a transitioning time; the time when a young adult leaves the adolescent world and departs into the world of college. The most prominent part of high school is the college application process. PSEO is an extraordinary means of adding that extra sparkle to your college application. As I stated before, while in PSEO, you are technically a college student; PSEO will prepare you for college life. You'll begin college well prepared for the social and academic rigors that college life presents.

Ricardo Millhouse
Macalester College
Alabama School of Mathematics and Science
Mobile, Alabama

Regular, honors, and Advanced Placement are some of the academic tracks available to high schools students. There are so many students that shy away from dual credit courses due

to the belief that they are highly competitive and do more harm than good in terms of your grade point average. I can attest the contrary. Dual Credit courses benefited me in a number of ways.

First, because Advanced Placement courses are weighed more than honors courses, they helped to raise my GPA a significant amount. The reason is that Advanced Placement courses are weighed on a scale with a 5.0 maximum, instead of 4.0. Also, due to my AP courses and my other upper-level math and science courses, I was offered the chance to transfer all of my credits to the University of Alabama at Birmingham, which would give me the opportunity to graduate semesters early. AP courses also made me stand out to the Gates Millennium Scholarship Program selection committee. The reason is that when a student takes AP courses, they are classified as motivated and not afraid to shy away from a challenge. Moreover, Advanced Placement courses incubated my critical thinking skills. If I can give a high school student any advice, it will be to sign up for as many AP courses as possible. The primary reason is that the fundamental skill that all students should have when entering college is critical thinking skills and dual credit courses provides those skills. Whether it is AP Calculus, AP Biology, or AP Environmental Science, you will graduate with the tools you need to be a successful college student, such as having impeccable writing skills, the ability to think critically about current issues, and the ability to put learned knowledge into context.

All of these skills are conducive to becoming a successful college student and an engaged citizen. In retrospect, dual credit courses attract college recruiters to classrooms. I can recall my math teacher passing out flyers from a number of colleges that will accept credits from the class, without taking the AP exam. So, for those students who have scruples about dual credit courses because of the intense workload, I recommend you to sign up for this challenge. You will undoubtedly be college ready.

Author Biographies

Kelsey Austin-King is a junior at Macalester College double majoring in English and Educational Studies. She served as an administrative assistant and research intern at the Center for School Change during the Fall 2011 semester. She has interned at the Minnesota Association of Charter Schools in Saint Paul and WestEd in San Francisco. She plans to work in education in the non-profit sector after college.

Paj Ntaub Lee, the Outreach Coordinator at the Center for School Change, provides Dual Credit awareness to families and students who are predominately low-income, first generation to college, and people of color. A Dual Credit participant herself, Paj Ntaub graduated from St. Olaf College with a double major in Asian Students and American Racial Multicultural Studies. Since graduation and before coming to the Center, she worked in urban district and charter schools serving the needs of immigrant and low-income students.

Joan Arbisi Little, Associate Director of the Center for School Change, has more than 20 years of experience as an educator, having worked with district and charter public, as well as private schools. She is licensed as a K-12 Principal and promotes experiential learning and social justice. She is currently pursuing her Doctorate in Educational Leadership, Policy and Administration.

Joe Nathan, a former urban public school teacher and administer, directs the Center for School Change. He has more than 40 years experience working as an educator, researcher, PTA president and author. Nathan has directed more than 30 research projects and reports, including several done in collaboration with the National Governors Association Center for Best Practices. He has written three books and edited one, and has received a variety of awards for his work in education since 1970. The most recent (2011) is the "Upton Sinclair" award from www.educationviews.org. He currently writes weekly columns published by 10-14 newspapers. He has appeared on more than 300 television and radio programs, including the "Today Show," "Good Morning America," "ABC Nightly News, and "McNeil/Lehrer News Hour."

Each of the authors participated in some form of Dual Credit course(s) during the time she/he was a high school student.