

FACT SHEET

Survey Highlights





PLTW: IGNITING IMAGINATION AND INNOVATION THROUGH LEARNING

Over the last several years, numerous academic institutions have released reports highlighting Project Lead The Way's success in engaging the hearts and minds of students through STEM education. Among other things, the reports find that PLTW students are outperforming their peers in school and that they are more focused on attending college than non-PLTW students. The studies are all unique in how they were conducted – some of them cover PLTW programs in certain regions, some in specific school districts, while others take a look at how PLTW alumni are performing in college. Every report is different, yet the results say the same thing: PLTW is igniting the imagination and innovation of students through learning. Here are just some of the highlights from the most recent reports that have been conducted.

PLTW STUDENTS OUTPERFORM NON-PLTW STUDENTS

A control group study in 16 states that compared PLTW student results on the 2008 *High Schools That Work* Assessment test with the results of students in other pre-engineering programs and Career Technical Education (CTE) programs finds that:

- Significantly more Project Lead The Way students met the readiness goals on the 2008 *High Schools That Work (HSTW)* Assessment tests in reading, mathematics and science compared with *HSTW* students in similar career/technical fields and *HSTW* students in all career/technical fields. (2009 *Southern Region Educational Board Report*)

A 2010 study of schools in 10 states that compared PLTW student results on Measures of Academic Progress (a test that measures student's academic growth over time in reading, mathematics and the sciences) finds that:

- PLTW students exceeded the average academic growth rate over one year of the virtual control group in science concepts and processes and mathematics. PLTW students also exceeded the average academic growth rate over one year of non-PLTW students in science concepts and processes and mathematics.

PLTW CLOSES THE ACHIEVEMENT GAP

A recent report on a control group study that evaluated the impact of PLTW on largely Latino-populated middle schools in Wisconsin finds that:

- All of the PLTW students in this study begin middle school (6th grade) at lower proficiency in math, reading and science and with lower attendance rates than the control group of non-PLTW students. The study shows that by 8th grade, those gaps had been eliminated. (*University of Wisconsin, Milwaukee Report – December 2009*)

A three-year study of PLTW high schools in Wisconsin finds that both academic achievement and student engagement are enhanced through PLTW:

- “PLTW can raise mathematics achievement and increase school attendance.” – *University of Wisconsin-Madison Center on Education and Work Report – June 2009*
 - PLTW seniors were significantly more likely to achieve both a higher ACT composite score and higher ACT math and science scores.
 - Seniors who completed PLTW courses at two urban high schools attended school an average of eight more days during their senior year when compared to non-PLTW seniors.



A three-year analysis of Galt High School PLTW student progress compared to non-PLTW students, including the Latino student population, finds that:

- “Project Lead the Way has been an effective program during the past three years at narrowing the achievement gap for Hispanic/Latino students in all four core areas.” – *Analysis of Student Achievement and Programs 2007, Galt Joint Union High School District*
 - For the third year in a row, students participating in PLTW scored higher than non-PLTW students at Galt High School in all five subject areas on the 2006 California Standards Tests (CSTs): English Language Arts, Mathematics, Science, History/Social Science, and Life Science.
 - For the third year in a row, Hispanic/Latino students in PLTW scored higher than other Hispanic/Latino students at Galt High and higher than the total student scores for all students in all five subject areas of the 2006 CSTs.

A study of more than 7,500 high school students in the Minneapolis Public School district finds:

- In Minneapolis, PLTW CTE students outperformed non-CTE students on Minnesota Basic Skills Tests in reading, math and writing. PLTW students had stronger attendance than non-CTE students. PLTW students had stronger graduation rates than non-CTE students. PLTW underserved students outperformed non-CTE students. (*Minneapolis Public Schools 2008-2009 Report: PLTW Enrollment and Outcomes*)

PLTW'S PROGRAMS ARE INCLUSIVE, REACHING A DIVERSE GROUP OF STUDENTS

A national demographic analysis of PLTW students finds that:

- PLTW programs are distributed across the entire economic spectrum including the least affluent schools; the vast majority of PLTW programs need to add or subtract only one or two students from any race/ethnic group to achieve proportional representation; the biomedical sciences curriculum enrolls about 70% female students; the percentage of female students in the Biomedical Engineering course is 38% (*True Outcomes – 2009*); and females make up nearly 24% of all PLTW students (PLTW 2010 Assessment Data).

PLTW HIGH SCHOOL GRADUATES ARE COLLEGE AND CAREER READY

A survey of PLTW seniors at the end of their senior year finds that:

- 92% intend to pursue a four-year degree or higher, 51% intend to pursue a graduate degree, and 70% intend to study engineering, technology, or computer science. By comparison, 67% of all beginning postsecondary students intended to pursue a bachelor's degree or higher as reported by the National Center for Education Statistics (<http://www.nces.ed.gov/dasolv2/tables/mainPage.asp#varLine689>). These results are consistent with results and conclusions for the past two years. (*True Outcomes – 2009*)
- About 90% of PLTW students who were surveyed at the end of their senior year said they had a clear and confident sense of the types of college majors and jobs they intended to pursue. Those students also said that their PLTW experiences were very significant in developing this self-knowledge and their PLTW experiences significantly increased their ability to succeed in postsecondary education. (*True Outcomes – 2009*)

A national analysis of 200 college transcripts of PLTW students finds that:

- Analysis of college transcripts of PLTW students who graduated in 2007 or 2008 showed 31% of PLTW students study engineering and engineering technology in their first year of college compared with 8% of



all first-time freshmen in baccalaureate institutions or 5% of all postsecondary students. PLTW students are four times more likely to study engineering or engineering technology in college compared to first-time freshmen at four-year institutions. (*True Outcomes – 2009*)

A report released by one of the leading undergraduate engineering programs in the country finds that:

- The average freshman GPA total for Milwaukee School of Engineering in 2007 was 2.85; the average GPA for PLTW freshmen students in 2007 was 3.03. (*Milwaukee School of Engineering 2008 Report*)

PLTW COLLEGE FRESHMEN STICK WITH INNOVATION

- In 2006-2007, first-year retention (freshmen to sophomore) was 76% (76% stayed with their declared major). 100% of Milwaukee Schools of Engineering's PLTW students remained in their declared major. (*Milwaukee School of Engineering 2008 Report*)