

# The Impact of AP<sup>®</sup> Achievement Institute I on Students' AP Performance<sup>1</sup>

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## Introduction

The continuing education of teachers has long been considered a cornerstone to improving our education system.<sup>2</sup> The importance placed on continuing education or professional development (PD) can be seen in the numerous incarnations of professional development programs currently in operation and the billions of dollars spent annually by public schools to fund these activities.<sup>3</sup> Although there are numerous studies examining the efficacy of PD programs in the literature, many are focused solely on the perceptions of the participants or employ less rigorous methodologies.

The current study attempts to address the desire for more rigorous research on professional development through an examination of a pilot program for teachers and administrators called the AP<sup>®</sup> Achievement Institute I (APAI I). Instead of focusing on only teacher perceptions or correlational evidence, this study links student performance to the teacher's participation in the PD program, while controlling for each student's prior achievement.

The APAI I is a four-day professional development program offered to teachers and administrators by EXCEerator™, a district reform program operated by the College Board. The APAI I program is designed to help teachers develop effective AP instructional strategies for a diverse student body and to help district, school, and curriculum leaders strengthen the district's infrastructure to support AP students and teachers.

## About the Research

Teachers from a large urban school district on the West Coast participated in APAI I in the summer of 2009. The purpose of this project was to determine the impact of APAI I on student AP achievement on ELA and social studies course exams. AP scores from the subsequent 2009 and 2010 administrations were examined for all participating teachers' students

who took the AP English Language and Composition, English Literature and Composition, U.S. History, World History, European History, Comparative Government and Politics, U.S. Government and Politics, or Human Geography Exams.

## Data and Methodology

Student-level data from three academic years (2007-08, 2008-09, and 2009-10) were obtained from the participating school districts. These data included the following files: enrollment and demographics, course transcripts, college exam records, and state assessments. Also obtained were teacher-level data that contained a file on courses and sections taught. Students were linked to specific teachers' classrooms through a unique course and section identifier. Finally, a list of all teachers who participated in the APAI I PD program in the summer of 2009 was obtained from the districts ( $n = 23$ ).

Participating teachers' student achievement on AP was compared before and after the APAI I professional development. Student AP performance (i.e., mean AP Exam score) from each cohort was the outcome of interest. Analysis of covariance (ANCOVA) was conducted to compare students' AP Exam scores while controlling for students' prior achievement levels by year (before and after taking the APAI I PD), by student race/ethnicity, and by any interactions between year and race/ethnicity. Because the students included in the file were in different grade levels in high school (students participating in AP included sophomores, juniors, and seniors), prior achievement on the state assessment was identified simply as the students' achievement in the year prior to their AP participation. In other words, if a student's AP Exam took place in his or her senior year, the junior-year state assessment was used to control for prior achievement.

## Results and Conclusions

There were 12 teachers who received the APAI I professional development and taught one of the specified AP courses in both the 2008-09 and 2009-10 academic years. There were slightly more AP students in 2009-10 than in 2008-09 (574 and 509, respectively); students in 2009-10 also took more AP Exams than in 2008-09 (601 and 523, respectively). Much of this increase was represented by Hispanic students, who took AP Exams in greater numbers. After the APAI I PD, more Hispanic students of lower prior achievement were enrolled in the AP courses taught by the APAI teachers than before the APAI I (though the increase was not statistically significant). Despite this increase, there were no statistically

significant differences between the students' AP scores before and after the APAI I. In summary, students taking AP Exams in the second year were more diverse, representing lower levels of prior achievement while still managing to maintain consistent AP Exam performance. This finding suggests that the teachers were, in fact, able to provide rigorous AP instruction to a more diverse set of learners.

**Table 1.**

Number of Teachers, Students, and AP Exams in the Data File

	2008-09	2009-10
<b>AP Teachers</b>	12	12
<b>AP Students</b>	509	574
<b>AP Exams</b>	523	601

1. J. M. Bausmith and V. Laitusis, *The Impact of AP<sup>®</sup> Achievement Institute I on Students' AP Performance* (College Board Research Report No. 2012-7) (New York: The College Board, 2012). Accessed from <http://research.collegeboard.org/rr2012-7.pdf>.

2. H. Borko and R. Putnam, "Expanding a Teacher's Knowledge Base: A Cognitive Psychological Perspective on Professional Development," in *Professional Development in Education: New Paradigms and Practices*, ed. T. Guskey and M. Huberman (New York: Teachers College Press, 1995), 35-66; L. Darling-Hammond, "Reframing the School Reform Agenda: Developing Capacity for School Transformation," *Phi Delta Kappan* 4, no. 2 (1993): 753-61.

3. T. R. Guskey and K. S. Yoon, "What Works in Professional Development?" *Phi Delta Kappan* 90, no. 7 (2009): 495-500; L. Zhou, *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2005-06* (Fiscal Year 2006) (Washington, DC.: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 2008).

