Advanced Placement in a Changing Educational Landscape

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Viewed as an incontrovertible indicator of educational excellence by educators and politicians alike, the Advanced Placement (AP) Program\(^1\) of the College Entrance Examination Board provides “motivated high school students with the opportunity to take college-level courses in a high school setting” (NRC, 2001, p. 246). As a testament to the popularity and support it enjoys, AP’s annual growth rate of 9.3 percent during the last two decades far exceeds the 1 percent yearly increase in the number of students graduating high school (Hussar & Bailey, 2009, table 24; College Board, 2009a). Advanced Placement courses have become the juggernaut of American high school education, expanding their reach well beyond their origins in elite private schools. Public high schools in well-off suburbs have vastly increased their course offerings, while less affluent rural and urban schools now offer advanced courses where none existed previously. Twenty-five percent of graduating high school seniors in the United States have taken at least one AP exam (College Board, 2008, appendix C). The number of AP offerings has become a well-publicized proxy for high school quality (e.g., the Newsweek June 8, 2009, listing of America’s top public high schools). Students see AP courses on their transcript as the ticket to ensuring entry into the college of their choice. State legislatures require AP offerings in high schools and mandate their value as college credit in state institutions of higher learning. AP now has a role in national politics. In 2006 President George W. Bush called for a near doubling of the number of AP teachers in mathematics and science.
by training an additional “70,000 high school teachers to lead advanced-placement courses in math and science” (Bush, 2006). U.S. Department of Education grants subsidize the expansion of AP offerings, which can include underwriting the cost of exams.

Yet, while many view AP as an unmitigated triumph, others question if the program has been oversold. In light of its rapid expansion, many worry that the College Board has lowered its standards for passing AP exams to keep students, parents, and schools supportive. Colleges and universities are increasingly reluctant about awarding credit for the AP coursework of incoming students. Many academic departments have boosted their requirement to higher AP exam scores in awarding college credit. Others have argued for the abolition of AP credit entirely. High school students complain of the dizzying pace of AP courses, and many never return to the subject again in college. Home-grown advanced high school courses and electives are eliminated in favor of increasing AP offerings, which many say is simply more “test-prep” for yet another standardized exam (Labrecque, 2006). Criticism that AP courses cover too much material, too superficially, and too quickly have surfaced from blue-ribbon panels studying advanced high school coursework, like that of the National Research Council (2002). In the effort to close the gap between students in privileged and struggling communities, AP has expanded to urban and rural schools, where AP exam scores can be dismal. Economists warn that Advanced Placement is but one lever for change; that it can be a very costly one to implement, often with meager returns; and that it reallocates scarce resources from other worthwhile and more effective programs.

Thus, Advanced Placement has its vocal boosters and detractors, its advocates and opponents. The vigorous debate about AP somewhat overshadows the consideration of alternative forms of advanced coursework, but we should keep in mind that AP courses represent but one of several different opportunities for high school students to take advanced coursework.

The International Baccalaureate (IB) originated in Geneva, Switzerland, as a way for internationally mobile students to prepare for university entry through a rigorous curriculum and standardized examinations. Unlike AP, IB is organized around a school-level curriculum that includes all academic subject areas. This includes a lengthy application process for schools, a trial period, and an on-site visit from an IB delegation. There are 668 schools in the United States offering an IB high school diploma
program. Exams are scored on a 1 to 7 scale, and colleges vary in their policy of awarding credit for scores of 4 to 7. Examinations are offered in six groups (language, second language, experimental sciences, the arts, mathematics and computer science, individuals and society) and consist primarily of essay questions. Unlike the AP Program, teachers are monitored and receive feedback in addition to student test scores.

Dual credit and concurrent enrollment programs refer to ways in which high school students can take courses offered by colleges. Dual credit programs offer both high school and college credit, so high schools must explicitly adopt policies to implement this option. Concurrent enrollment students receive college credit only; this option does not require approval from a high school, but the college must be willing to accept high school students who have not yet earned their high school diploma. Both programs allow students to earn college credit that is more readily transferable when students matriculate into college. Proponents of dual credit and concurrent enrollment programs argue that they offer students an authentic college experience because the courses are taught by college faculty and populated with college students. Detractors express concern about the absence of a standardized end-of-course exam or other form of quality control given that the course grade is the only measure of student success. Home-grown advanced courses are offered by high schools in subjects where teachers have a strong interest and special expertise. Rather confusingly, they are often called honors courses, although this name does not distinguish between first-year courses often required for entry into AP courses and second-year courses that are more closely aligned with college-level curricula. These courses can be much more laboratory oriented when offered in the sciences than are other advanced courses, and they provide students an opportunity to carry out project work in an area of their interest. Many wealthy public suburban and elite private schools have turned from AP offerings to such courses, claiming that they are more similar to college. Credit can be awarded by colleges for such courses, although those that require department exams for course credit make that option available. Many students prepare for the AP exams in these non-AP courses and take them successfully.

Despite the numerous routes and opportunities for accelerated learning while in high school, the AP Program dominates the public perception of advanced coursework. Seemingly everyone with a stake in education has an opinion about the AP Program: students, parents, teachers, guidance counselors, administrators, professors, college admissions officers, policy
makers, and journalists. Although there is no shortage of strong views about the merits of AP, there is a shortage of evidence about the efficacy, cost, and value of these programs. The College Board’s (2009b) Web site does provide links to research on AP, but the thirty-three listed documents all appear to be internally produced research reports or glowing accounts of the AP Program from outside entities. However, additional research, much of it critical, exists that has been conducted by researchers without strong ties to the College Board. This research is spread across many academic journals, but, as a whole, it gives a far more balanced perspective of the AP Program using a variety of approaches to probe when and where AP courses work best and where they may fall short.

The idea behind this book is to bring together in a single concise volume the findings of many of the most thoughtful and rigorous researchers who have studied the impact of the AP Program. Together our contributors make use of a variety of quantitative and qualitative approaches, ranging from historical to economic, to examine this popular program from multiple angles. The authors and other interested colleagues gathered on May 11–12, 2007, at Harvard University for a conference entitled “Synthesis of Research on Advanced High School Coursework in Science and Mathematics.” Each contributor presented his or her latest work and had an opportunity to discuss it with other participants and a general audience in attendance. Thereafter participants drafted chapters for a broad audience that represent a wide range of perspectives and, taken together, present a comprehensive picture of the history, impact, and possible future trends of the AP Program. The result is a set of well-reasoned and nuanced findings concerning the proper implementation of the program, how AP should be viewed by colleges and universities, and the role of advanced high school coursework in education reform.

Those who will find the information in this volume valuable include educators and policy makers who are interested in educational improvement at the high school level and in the effective transition between high school and college. In addition, this book is of interest for officials involved in the college admission process, since AP enrollment is increasingly used as a tool for differentiating applicants. College faculty may also find useful information in this book because they are called on to set standards for giving course credit to entering students, and many are involved in professional development activities that support efforts to increase rigor in high school courses. Furthermore, college faculty train new teachers and administrators who will be involved in the implementation
of advanced coursework at the high school level. Last but not least, parents who advocate for increasing academic quality in their children’s schools will find answers to their questions about the difference AP courses can make in students’ college success.

Two of the key themes that appear repeatedly and are treated by many of the authors in this book are the issues of causality and social equity. Determining the causal effects associated with the AP Program is difficult because participation is voluntary and participants are self-selected. In this way, choosing to take an AP course can be thought of as a filter that draws in a group of motivated, high-achieving students who have a strong chance of later doing well in college, whether or not they have taken an AP course. If this self-selection effect is ignored, one might easily overestimate the impact of AP course-taking on high school students. Dougherty, Mellor, and Jian (2006) said it best when they offered the following insight: “Much of those [AP] students’ later success in college may be due not to the AP classes themselves, but to the personal characteristics that led them to participate in the classes in the first place—better academic preparation, stronger motivation, better family advantages, and so on. These selection effects will affect any comparison of AP and non-AP students” (p. 3).

For this reason, it is problematic to simply compare the performance of groups of AP and non-AP students and attribute any differences found to the impact of AP. With the near impossibility of conducting experimental studies in which students can be randomly assigned to educational interventions or to a control group, social scientists have developed statistical methods to account for differences in student background. The researchers in this volume are adept at such techniques, paying careful attention to other performance-related variables that would offer alternative explanations for differences between the performance of AP and non-AP students. Such methods help isolate the effects of AP experience from other confounding factors, making their findings far more defensible than much of the previous work on AP. Although such work cannot definitively prove causality, it can offer strong evidence for or against the effect of educational programs. Only a relatively small group of academics involved in AP research has conducted studies that carefully control for student backgrounds and explore relevant alternative hypotheses. Many members of that group are contributors to this book. Just as all oceangoing vessels must undergo careful “compass compensation” to remove the confounding effect of the ship’s steel structure on its compass, studies of