

Advanced Placement and First Year College Outcomes

This research looked at the relationships between Advanced Placement (AP) participation in high school and remediation rates, GPA, and credit hours received in the first year of college.

The Arkansas Research Center (ARC) examined 13,030 2009 Arkansas high school graduates that were freshmen in an Arkansas college during the fall semester of 2009. AP participation was determined by whether a student had taken an AP exam sometime during high school. Since the exam is free for these students and required for weighted credit (a grade of “A” would be equal to 5 points instead of 4 for a course not weighted), it is our assumption that the majority of AP students do take the AP exam. Of the 13,030 graduates of 2009 enrolled in an Arkansas college by fall 2009, 53% did not take AP courses during high school while the remaining 47% did. We also examined what kind of AP class was taken, specifically, if the student took a math, science, or English AP course.

AP Analysis:

A comparison of students who took AP courses and those who did not shows that students who took AP courses achieved more credit hours in their freshman year (28.57 credits achieved by students who took AP courses compared to 17.68 credit hours by students who did not take AP courses). Students who took AP courses also had a higher GPA than their non-AP peers in their first year (2.84 compared to 2.19). Also, students who took AP courses had a much lower rate of remediation (28.04 compared to 64.2).

Table 1: Students who took AP courses compared to those who did not

	Credit Hours Achieved	First Year College GPA	Remediation
Non-AP	17.68	2.19	64.2%
AP	28.57	2.84	28.04%

Proficiency Analysis:

Of the students who took AP courses, those that were proficient (a score of 3 or better) on the AP exam obtained more credit hours, had a higher first year college GPA, and had lower remediation rates compare to those not proficient in AP courses (see Table 2). It is important to note that students who were proficient in an AP course, any AP course, achieved nearly double the credits hours than students who took no AP courses. Students who took AP courses and were not proficient outperformed their non-AP peers as well.

Table 2: AP Proficiency

	Credit Hours Achieved	First Year College GPA	Remediation
Non-AP	17.68	2.19	64.2%
AP Not Proficient	27.46	2.72	33.02%
AP Proficient	31.84	3.19	13.47%

Math/Science/English Analysis:

We also looked at college outcomes for students that took a math, science, or English (MSE) AP course, compared to students that took other AP course(s). These MSE AP students achieved more credit hours, had higher GPAs, and lower remediation rates compared to students that took non-MSE AP courses (see Table 3).

Table 3: MSE

	Credit Hours Achieved	First Year College GPA	Remediation
AP Non-MSE	25.17	2.60	37.58%
AP MSE	29.34	2.89	25.87%

Remediation Analysis:

According to ADHE, Arkansas public colleges and universities expended \$84.6 million on remedial education during 2009-2010¹. For Arkansas graduates in 2009, the remediation rate for those entering college in fall 2009 was 47.3% (see Table 4). Of those that did not participate in any AP courses, 64.2% required remediation. The remediation rate for those participating in AP courses was 28%.

For students that took AP courses that were not MSE, 37.6% required remediation. Of these students, if they were not proficient on the AP exam the remediation rate was 40.2%, while those that were proficient had a remediation rate of 24.6%. For students that took an AP course in one of the MSE subjects, 25.9% required remediation. Of these students, if they were not proficient on the MSE AP exam the remediation rate was 30.4%, while those that were proficient had a remediation rate of 11.5%.

Table 4: Remediation

	% of Student Requiring Remediation
AR Entering Freshmen 2009	47.3%
Non-AP	64.2%
AP	28.0%
AP Non-MSE Exam	37.6%
AP Non-MSE Not Proficient	40.2%
AP Non-MSE Proficient	24.6%
AP MSE Exam	25.9%
MSE Exam Not Proficient	30.4%
MSE Exam Proficient	11.5%

¹ Uniform Reporting of Educational and General Revenues, Expenditures, And Academic Productivity - <http://www.arkleg.state.ar.us/Education/HigherEd/ADHE/2010%20Higher%20Ed%20Cost%20Accounting.pdf>