

The Impact of AP and IB programs on High Stakes College Admissions

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## **Abstract**

The purpose of this study was to examine the impact on undergraduate college admissions decisions at selective U.S. colleges and universities of student enrolment in the Advanced Placement (AP) or International Baccalaureate (IB) programs of international schools.

A total of 30 interviews were conducted by the researcher with admissions personnel from selective colleges and universities in the United States. Additionally, two tracer studies were conducted from two similar international schools; one offering the IB Diploma program and the other offering the AP program. The tracer studies focused on AP/IB enrolment and its impact on college admissions success.

Results of the study indicate that there is a strong correlation between enrolment in these programs and admission to selective undergraduate institutions (high correlations of  $r = -.77$  and  $r = -.75$  were found in both tracer studies). However, this correlation is influenced by specific secondary school leader commitments to these programs. It is not essential for secondary school students to be enrolled in these programs in order to gain admission to the most selective colleges and universities in the United States since AP and IB enrolment explains roughly 58% of the variance in admissions. Other important factors explain 42% of the variance. These factors were not identified in this study.

These results have significant implications for both secondary schools, institutions of higher education, the IBO and College Board. The data from the two tracer studies and the interviews with admissions personnel indicate that participation in these programs enhance admissions chances, but admission is possible without such participation.

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## **Chapter One**

### **Introduction**

In view of a global economy, the emphasis on the Advanced Placement and International Baccalaureate programs and the benefits they provide to students are central to the thinking of educational leaders worldwide (U.S. Department of Education, 2007). For many teachers and administrators committed to strong academic standards, the “advanced” high school courses offered through the College Board’s Advanced Placement program and, increasingly, the Diploma Program of the International Baccalaureate Organization (IBO) represent a curricular standard for secondary education (U.S. Department of Education, 2007). Admissions directors and professors at America’s most competitive colleges have long encouraged this view (Atkinson, 2001).

Federal policymakers in the United States have also supported enrolment in the International Baccalaureate and/or Advanced Placement programs (U.S. Department of Education, 2007). These policymakers see in these courses the opportunity to give many more children access to first-rate curricula, so they have invested tax revenue and non-tax revenue through grants and other programs. In 2006, for example, the US Department of Education awarded thirty-three grants, totaling \$17 million, to boost participation among low-income students in Advanced Placement courses and tests. The Department of Education has also awarded over \$2 million to the International Baccalaureate of North America to seed its expansion in Title 1 schools, and IBO

receives financial support through the department's Magnet Schools Assistance Program (U.S. Department of Education, 2007).

Numerous state-level incentive programs also seek to boost participation in AP and IB. Many states, for example, will pay students' exam fees, teachers may receive bonuses if their students pass the exams, and some states are even beginning to require their school districts to offer AP and/or IB programs (U.S. Department of Education, 2007).

While these programs have become household names, they are often compared and examined together. At face value, these programs are similar in many ways: curriculum design by an external body, teacher training, external exam, and possible college or university admissions implications.

The overwhelming research conducted through the College Board and the International Baccalaureate Organization represents a look at how the programs meet the needs of students and, statistically, how many students are enrolled and the full range of test scores (College Board, 2008; International Baccalaureate Organization [IBO], 2008). Both the IBO and College Board suggest that the benefits of their programs include a high rate of college admissions resulting from program test scores, increased study skills from a college level curriculum, and an increased world view through the study of culture and cultural differences. (College Board, 2008; IBO, 2008) Both organizations advertise a well-rounded education of the highest level, designed to create "world citizens" (College Board, 2008; IBO, 2008). Both state that they produce students ready to meet all challenges and that enrolment in the AP or IB enhances a

student's chances of gaining admission to selective universities (College Board, 2008; IBO, 2008).

### **Rationale of the Study**

This study examines the impact of enrolment in the AP or IB programs on student admission to selective colleges or universities in the United States. As stated, according to the College Board and the IBO, the expected student outcomes of program enrolment include: high test scores, increased study skills, increased student world view, and greater access to selective universities in the admissions process (College Board, 2008; IBO, 2008). The significance of this study lies in the validity of these statements made by the College Board and the IBO regarding the impact of program enrolment on college admissions decisions.

### **Statement of Study Purpose**

The purpose of this study is to examine the impact of student enrolment in the AP or IB programs on college admissions decisions at selective U.S. colleges and universities.

### **Background**

Increasingly, what people mean by phrases such as "rigorous college-prep program" is the Advanced Placement (AP) or the International Baccalaureate (IB) program (Atkinson, 2001). Both have been around for a long time (fifty and forty years respectively), enjoy a reputation for academic excellence, and are growing in popularity (College Board, 2008; IBO, 2008).

The AP program began in the 1950s by the Educational Testing Service (ETS) to offer rigorous college-level courses to high school students in an effort to improve high school instruction. During 1957-58, the College Board took over administration of the AP program. In the 1960s, a teacher training component was developed to better prepare secondary school teachers to teach these college level courses (College Board, 2008).

As a new course is developed, an AP Development Committee is assembled. Currently, there are 22 committees that are responsible for 37 courses and exams. All committee members have advanced degrees in the content. They develop course description booklets, sample syllabi, and sample exam questions. Each AP course now has its own course home page (College Board, 2008).

AP Exams are offered in the following subject areas: Art History, Biology, Calculus AB, Calculus BC, Chemistry, Chinese Language and Culture, Computer Science A, Computer Science AB, Macroeconomics, Microeconomics, English Language, English Literature, Environmental Science, European History, French Language, French Literature, German Language, Comp Government & Politics, U.S. Government & Politics, Human Geography, Italian Language and Culture, Japanese Language and Culture, Latin Literature, Latin: Vergil, Music Theory, Physics B, Physics C, Psychology, Spanish Language, Spanish Literature, Statistics, Studio Art, U.S. History, and World History (College Board, 2008).

Beginning in January 2005, the College Board released AP data for graduating cohorts. Nationally, 13 percent of graduating seniors earned at least one three on an AP

exam during their high school careers (College Board, 2008). Please refer to Table 1 in on page 18.

The International Baccalaureate (IB) program began in 1965, as an international education program based on three principles: the need for a broad base of knowledge and critical thinking skills, the development of international understanding and awareness, and the creation of a curriculum that could adapt to students' areas of interest. The IB program also offers detailed curriculum guidelines, teacher training, and procedures for school-based assessment of student work. All exams are criterion referenced to ensure understanding of the material (IBO, 2008).

The IB is a nonprofit educational foundation, motivated by its mission, focused on the student. It is comprised of three programs for students aged 3 to 19 help develop the intellectual, personal, emotional and social skills to live, learn and work in a rapidly globalizing world: Primary Years Program (Ages 3-12), Middle Years Program (Ages 11-16), and the Diploma Program (Ages 16-19). The IBO currently works with 2,226 schools in 125 countries to develop and offer the three programs to over 598,000 students worldwide (IBO, 2008).

IB is different from the AP program in that it is offered as a 2-year comprehensive program to students in grades 11 and 12. The passing score is a 4 or better on a scale of 1 to 7. By passing a specified series of courses students may earn an IB diploma or certificate. Additionally, colleges and universities may offer college credit or advanced course placement for predetermined scores (IBO, 2008).

On the whole, these programs succeed for two reasons. First, both set high academic standards and goals for learning that are well-delineated to teachers, students, and parents. Equally important, the exams for both programs are well-aligned to their standards, testing students on the content of their courses and considerably more. Students are also expected to make sense of complex, and sometimes contradictory, materials, to write and defend their opinions about these materials intelligently and to apply their knowledge in creative and productive ways.

Second, these programs are linked with real-world benefits. AP and IB students not only develop knowledge and skills that better prepare them for college, but they can earn college credit for their efforts – a good motivation to stay with the program.

Schools and school leaders wish to offer their students the best curriculum possible and provide them with a boost in college admissions. Therefore, the AP and IB programs are expanding as schools world-wide choose to sign up. (College Board, 2008; IBO, 2008)

This study set out to answer the following research questions: In what ways does high school student enrolment in the IB or AP influence undergraduate admission to selective institutions of higher education in the US? What reasons do admissions personnel give for supporting enrolment in AP or IB regarding college admissions? In what ways are admissions personnel critical of IB or AP program enrolment? What academic/non-academic factors influence admission to selective institutions of higher education in the US?

### **Delimitations and Limitations**

Delimitations: the interview respondents are limited to admissions personnel at US colleges and universities.

Limitations: validity was limited to the honesty of the participants. School records are limited to two schools: The American School in London and TASIS England.

### **Definitions and Terms**

The Advanced Placement (AP) program offers students an opportunity to take college level courses while still in high school.

The International Baccalaureate (IB) is a comprehensive, external (to schools) program which includes a strong curriculum and rigorous exams, which may be accepted by colleges for credit or advanced placement.

Admissions Personnel are individuals who work in the admissions office at a college or university.

The College Board is the governing body for the AP program charged with design, distribution, and grading.

Selective Colleges or Universities are determined based upon the percentage of applicants admitted within each college or university applicant pool.

Tracer studies are surveys carried out to evaluate the labor market experience of graduates (Pang, 1978). This study will not focus on labor market experience but on student AP or IB enrollment.

## Chapter 2

The research within this study seeks to address the impact of enrolment in the International Baccalaureate (IB) or Advanced Placement (AP) programs on the college admissions process at selective colleges or universities in the United States. Therefore, this literature review will focus on the IB and AP stated benefit of program enrolment and admission to colleges or universities in the United States, the financial implications of each program, and the actual impact of AP or IB enrolment and college admissions.

This chapter presents a review of the literature in the areas most relevant in the following: the AP and IB program benefits and financial implications, student outcomes for students enrolled in the AP, IB or both programs, and the expanding role of AP and IB in college admissions, specifically, the link between AP/IB enrolment and admissions and the problems with AP and IB as an admissions criteria.

### **Advanced Placement (AP) and International Baccalaureate (IB) Program Benefits and Financial Implications**

According to the College Board (2008), the AP program benefits students, teachers, secondary schools, and college universities in a number of ways. For instance, AP participation provides students the opportunity to study certain academic subjects in greater depth and to develop analytical and other study skills that can contribute to college-level success (College Board, 2008). AP can also enrich academic experience because, via the external review of AP examinations, students are provided a basis for comparing their own achievement to that of their peers, which can motivate and give examinees the confidence to manage academic challenges in college (Cech, 2007;

Viadero, 2006). Most obviously, students with sufficiently high AP examination grades can receive college credit of advanced placement, depending on policies of the college or university they attend. In a longitudinal study reported by Willingham and Morris (1986), AP students tended to be better prepared for college than their non-AP peers and were more likely to graduate from college with double majors and to be admitted to doctoral programs.

For secondary teachers, AP introduces opportunities for professional development through written materials provided by the College Board and the workshops it sponsors, as well as the chance to teach challenging subjects to able, motivated students (Collins, 2004). For secondary schools, AP helps enrich the academic curriculum and enhances the quality and reputation of college preparatory programs (Collins, 2004; Viadero, 2006). For colleges and universities, AP provides a means to identify and recruit students who have successfully met demands in challenging college-level courses; moreover, AP provides admissions officers with another important predictor of student success in college (Adelman, 1999; Collins, 2004; Viadero, 2006).

To participate in the AP program, secondary schools must indicate willingness to institute the courses, encourage teacher training and professional development, and administer the AP examinations (College Board, 2008). No fee is charged to schools for participating in the AP program, but some expenses may accrue for course materials, textbooks, and professional development. Schools receive an \$8.00 administrative fee for each examination completed by an enrolled student. This fee comes directly from

the College Board and is included in the examination fee for each test taken (College Board, 2008).

For students taking the AP examinations, a fee of \$84.00 is charged per examination; however, the College Board will reduce this fee by \$22.00 for students in financial need and encourages districts to waive the \$8.00 administrative fee that is included in the total examination cost (College Board, 2008).

For teachers, the College Board provides professional development opportunities for teachers worldwide through its own AP weekend workshops and AP spring and summer institutes and through presentations, workshops, and institutes offered in affiliation with the US Department of State and regional school associations throughout the world (College Board, 2008). These professional development opportunities range in price from a workshop at \$85 to a two-week summer institute at \$380 (College Board, 2008). College Board professional development is open to current participants in the AP program and also to those interested in learning more about these programs (College Board, 2008). It should be noted that most international schools provide individualized teacher professional development funds which can be used for these programs, thereby providing professional development at minimal or no cost to the teachers (Wilensky, 2007).

This stated mission by the International Baccalaureate Organization provides a basis for an understanding of the benefits of IB participation.

The International Baccalaureate program aims to develop inquiring, knowledgeable and caring young people who help to create a better and more

peaceful world through intercultural understanding and respect. To this end, the IB organization works with schools, governments and international organizations to develop challenging programs of international education and rigorous assessment. These programs encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right. (IBO, 2008)

The curriculum is designed to create global citizens with a world view and reflecting an attitude of service (Cech, 2007). Unlike to AP program, the IB connects all of its content and coursework to the themes of service and understanding different cultures (Collins, 2004). Therefore, one, special benefit of IB program enrolment for students, teachers, schools, and even parents, is the connection of the curriculum, in its design, to the world and the people in it. This is a strong benefit, in that participation in the program provides a belief that the intrinsic values of education will be the focus of the curriculum and, more importantly, the school's decision to implement the program (Cech, 2007; Viadero, 2006; Wilensky, 2007).

The IB Program is broken down into three areas: Primary Year Program (ages 3-12), Middle Years Program (ages 11-16) and the Diploma Program (ages 16-19) (IBO, 2008). Therefore, it is quite different from the AP program which focuses entirely on advanced placement for college-bound students, normally of high school age (between ages 14-19). The IB Diploma Program most resembles the AP program in that it focuses on older students who are on the eve of college enrolment. The diploma program is a challenging, two-year curriculum which leads to a formal diploma for completion of the

program. The IB diploma is recognized worldwide by colleges and universities and can often provide advanced placement in subjects studied within the program. Students learn more than a collection of facts – the diploma program prepares students for university and encourages them to: ask challenging questions, learn how to learn, develop a strong sense of their identity and culture and develop the ability to communicate with and understand people from other countries and cultures (IBO, 2008). Several studies have showed that school preference to the IB diploma program can be linked directly to the organization's mission and philosophy (Adelman, 1999; Cech, 2004; Collins, 2004). However, both Collins (2004) and Adelman (1999) also link enrolment in the IB to the benefit of IB enrolment in the college admissions process which will be discussed later in this literature review.

Financially, enrolment in the International Baccalaureate program is quite expensive for secondary educational institutions. International schools that enroll with the IB, within Africa, Europe, or the Middle East, must pay an application fee of \$2,962 for the Diploma Program, \$5,220 for the Middle Years Program, and \$5,220 for the Primary years Program (IBO, 2008). This is a one-time fee, paid upon applying, regardless of acceptance into the program or denial (IBO, 2008). If accepted, the school pays an annual fee of \$8,850 for the Diploma Program, \$5,220 for the Middle Years Program, and \$5,220 for the Primary years Program (IBO, 2008). In addition, once a school is an authorized member of the IBO, the school must employ an individual as the IB Coordinator. The IB Coordinator will be the school's connection to the worldwide

organization and be the point person for collecting student fees, implementing the testing schedule, etc. (IBO, 2008).

For students enrolled in the Diploma Program, there is a registration fee of \$123 per student and a subject fee of \$84 for each subject taken (IBO, 2008). Students enrolled in the Middle Years Program are charged a student fee of \$58 (IBO, 2008). Students enrolled in the Primary Years Program are not charged a student fee. In-school workshops for IB teachers, required for school enrolment, range in price between \$500-\$850 for schools and \$20-\$26 for individual teachers (IBO, 2008).

### **AP Courses and Examinations**

AP courses are developed locally based on course descriptions and other materials provided by the College Board to interested schools. AP teachers typically supplement textbook and College Board course description materials with other materials, special studies, student presentations, and other student performance activities (College Board, 2008). In addition, instructional approaches used in AP courses can include student-centered seminars with student presentations and instructor-guided discussion on supplementary readings and outside projects. AP teachers can receive training relevant to the content covered in AP courses and on AP examinations, relevant teaching strategies, and types of resource materials available from summer institutes set up and administered by colleges, universities, school districts, and other entities. During the school year, the College Board also offers one-day and two-day professional development workshops for new and experienced AP teachers. Except for the two Studio Art examinations, which require a portfolio of work, AP examinations

consist of both multiple-choice items for breadth of content coverage and free-response questions that “allow students to demonstrate depth of understanding and an ability to organize and present ideas” (College Board, 2008, AP Description).

Free-response questions may require essay responses, analysis of historical documents, oral language listening and speaking fluency, and completion of problem-solving tasks. Annual AP examinations are developed by committees that include discipline experts from college faculty and teachers of the relevant high school AP courses. Development periods for annual examinations span two or more years. The development committees also formulate AP course descriptions in each subject area which they review and revise every two years to ensure that current thinking about course content and instructional reforms, such as technological advances are being reflected (College Board, 2008, AP Description).

In addition to these approaches to ensure the content validity of AP examinations, the AP program employs established educational measurement practices to ensure that AP grades are valid measures of college-level performance. These include: using psychometric procedures in designing and analyzing AP examinations so that they reliably measure college-level achievement, guiding training of college faculty and AP teachers in the reliable application of college-level scoring standards for the free-response items, evaluating and comparing the performance of college students taking AP examinations upon completion of relevant college courses to that of high school students taking AP examinations upon AP course completion, and studying the

performance of AP vs. non-AP students in relevant sequences of college courses (College Board, 2008, AP Description).

### **AP Program Student Enrolment**

Based on a report released in 2007 by the College Board, greater numbers of high-school students are taking Advanced Placement examinations and are faring better on them than in the past (College Board, 2007, AP Data).

The College Board (2008), a nonprofit association, administers 37 Advanced Placement exams, which allow high school students to earn college credit or exemption from introductory-level college classes. The tests are graded on a scale of 1 to 5, with 3 the minimum score required to demonstrate college-level competence in a particular subject (See Table 1). The total number of students taking AP exams increased by 9.7 percent in 2006 over the previous year, the board said. The College Board reported that 14.8 percent of the 2.7 million students who graduated from public high schools in 2006 earned AP-exam scores of three or higher in high school. That proportion is up from 14.1 percent in 2005 and is considerably higher than in 2000, when 10.2 percent of those graduates had scores of three or higher (College Board, 2008, AP Data).

The report, "Advanced Placement Report to the Nation 2007" (College Board, 2007, AP Data), also highlights the results of two new studies that linked AP preparation to success in college. In the larger of those studies, researchers tracked five groups of students from 1998 to 2002 that graduated from a Texas high school and enrolled at in-state public colleges or universities. They found that students who had taken one or more advanced-placement courses--even students who did not take the

exam--had better grades and higher four-year graduation rates from college than non-AP students did (College Board, 2008, AP Data).

The other study, which followed four groups of entering freshmen at the University of Texas at Austin, determined that students whose AP-test scores made them exempt from introductory college classes, had earned higher grade-point averages in college, and took more credit hours in the subject areas of their exams than did non-AP students of similar academic standing. Both studies were financed by the College Board, and their findings run counter to those from an unpublished study presented at a conference in 2006 by researchers from Harvard University and the University of Virginia (College Board, 2008, AP Data).

According to the College Board's report (2007), American high schools have made modest headway in closing the gap in participation in advanced-placement classes and exams between white students and those from minority groups. The greatest gain has been among Latino students, who now make up 14 percent of AP-exam takers, a proportion that matches the percentage of Latino students nationally. African-American and Native American students, however, continue to be underrepresented in AP programs. While black students make up 13.7 percent of the student population, they constitute only 6.9 percent of AP examinees. American Indian and Native Alaskan students account for 1.1 percent of all high-school students but only 0.6 percent of test takers (College Board, 2008, AP Results).

Moreover, despite the increasing diversity of test takers, disadvantaged students lag behind the general population in exam performance. Trevor Packer, executive

director of the College Board's Advanced Placement program, attributes the disparity to poor preparation for both teachers and students in urban and rural locations where there is "not yet an adequate pipeline to prepare students for the rigors of AP" (College Board, 2008, AP Results). College Board officials also discussed its new audit system, which is designed to ensure greater consistency in the content and quality of high-school advanced-placement classes. High schools wishing to label a course as AP for the 2007-08 academic-year must now submit a copy of the course syllabus to an auditing board, made up of college faculty members, for approval (College Board, 2008, AP Results).

The audits, the College Board (2008) states, will ensure that high schools provide the content and resources appropriate to college-level courses, and will improve college admissions officers' ability to evaluate and compare courses marked as AP on students' transcripts.

The history of the AP Program dates back over 50 years. In 1953 the College Board began the Advanced Placement (AP) program, to challenge a small, elite group of able students. AP students took a college course in high school and an external exam to qualify for admission to advanced undergraduate work. The strength of AP was its eschewing fads for a solid collaboration between high school teachers and college professors, with an emphasis on subject content. An important feature was the evaluation of a high school student's work by outside examiners who were college faculty.

Since that time the program has taken on a life of its own and has spread widely throughout American high schools. The number of participants has more than doubled every decade (College Board, 2008, AP Data). Today, more than half of American high schools and a third of four year college-bound seniors participate in this burgeoning program. More than a million AP exams, five hundred times the original number, are taken each year (College Board, 2008, AP Data).

Table 1

*Present College Board Interpretation of AP Scores*

Score	Interpretation
5 =	Extremely well qualified
4 =	Well qualified
3 =	Qualified
2 =	Possibly qualified
1 =	No recommendation

*Note.* Interpretations from College Board (2008).

Whereas overall assessments of American public schools range from highly critical (Finn, 1991; National Committee on Excellence in Education, 1983; Ravitch, 1985) to favorable, even optimistic (Bracey, 1991; Carson, Huelskamp, & Woodall, 1993), all sides give AP their approval. This shows itself in a growing number of legislatures and state boards which support AP (twenty-three states in 1998, including D.C.) in a variety of ways (College Board, 1998). The heart of the AP program is its examination, which is given at the end of the academic year, usually to high school

seniors or juniors. Unlike norm referenced examinations, such as SAT and ACT, which are scored in percentiles or equivalent, AP gives criterion referenced examinations, which are pass or fail. The criterion in AP is whether or not the colleges will accept the student for advanced placement. Thus, any critical evaluation of the success of the AP program must hinge on the degree to which the program succeeds in overcoming this hurdle.

The College Board (2008) claims that almost two-thirds of the students achieved grades of three or above on AP's 5-point scale, which is sufficiently high to qualify for credit and/or enrollment in advanced courses at virtually all four-year colleges and universities, including the most selective (College Board, 2008, AP Results).

The success of the AP program is judged by measurable exam performance, as opposed to intangible benefits, which are difficult to evaluate objectively (Lichten and Wainer, 2000). The greatest benefit of the program is qualification for advanced placement by the colleges and universities (College Board, 2008, AP Data). These colleges and universities divide (by average AP scores) into three classes: "highly selective" (mean AP grade greater than or equal to 3.4, average SAT scores approximately greater than or equal to 610), "selective" (AP 2.6-3.4, SAT *ca.* 500-610), and "non-selective" (AP 2.6, SAT <500). (AP data are obtained from the Educational Testing Service [ETS], 2000.) The number of exams is 218,359 in highly selective, 519,521 in selective and 67,386 in non-selective schools (ETS, 2000).

The data in Table 2 differ for each of the three types of colleges. Highly selective schools require a "4" or more, with about three out of five exams qualifying to receive advanced placement. About half of the selective schools take "4's" and half take

Table 2

*Data on AP Scores for a Representative Sample of Colleges and Universities*

College or University	Average SAT Score	Average AP Score	Percent equal or above 3	Number of Exams	Number of Candidates	Score
<b>Non-Selective</b>						
Albany State University	430	1.30	5.7	87	53	3
Praire View A & M University	420	1.54	11.1	81	48	3
Tennessee State University	460	1.71	16.2	271	166	3
North Carolina Agricultural and Technical State University	460	1.92	22.1	299	170	3
Morgan State University	475	1.95	24.1	162	102	3
Eastern Kentucky University	455	2.07	28.7	366	190	3
Georgia State University	461	2.13	31.6	275	154	3
Spelman College	537	2.22	33.2	561	311	3, 4

(Continued)

College or University	Average	Average	Percent equal	Number	Number of	Score
	SAT Score	AP Score	or above 3	of Exams	Candidates	
<b>Non-Selective (continued)</b>						
University of Southern Mississippi	515	2.29	36.1	418	219	2
Western Kentucky University	495	2.36	40.3	514	258	3
University of West Florida	535	2.36	44.2	240	115	3
University of North Carolina	454	2.37	41.8	977	525	3
<b>Wilmington</b>						
University of Texas Pan Am	NA	2.50	39.7	1282	559	3
University of South Florida	545	2.52	45.9	1993	894	3
University of California Riverside	511	2.55	47.5	4130	1576	3
Appalachian State University	540	2.59	51.6	1732	802	3
<b>Selective</b>						
George Mason University	515	2.63	49.4	1328	653	4

(Continued)

College or University	Average	Average	Percent equal	Number	Number of	Score
	SAT Score	AP Score	or above 3	of Exams	Candidates	
<b>Selective (Continued)</b>						
Florida State University	576	2.69	53.2	4836	2030	3
Auburn University	569	2.74	55.2	1707	836	4
James Madison	585	2.74	57.5	4016	1631	4
University of California Irvine	520	2.77	56.3	8247	2708	4
Clemson University	557	2.88	60.5	3963	1649	3
University of California Davis	565	2.94	62.4	7141	2658	3
Michigan State University	540	2.95	62.7	4157	2086	3, 4
Cornell College	600	3.01	62.1	182	70	3
University of Georgia Athens	599	3.02	66.1	6029	2493	3, 4
University of Texas	601	3.08	67.8	14838	5063	3
Pennsylvania State University	593	3.09	67.8	6362	2753	4

(Continued)

College or University	Average SAT Score	Average AP Score	Percent equal or above 3	Number of Exams	Number of Candidates	Score
<b>Selective (Continued)</b>						
University of North Carolina Chapel Hill	610	3.20	71.1	9386	2990	4
University of Utah	565	3.28	74.9	38.35	1496	3
Boston College	630	3.28	76.0	4213	1311	3, 4
Tulane	645	3.33	76.7	3002	973	4
Brigham Young University	610	3.35	77.9	10392	3960	3
<b>Highly Selective</b>						
University of Illinois Urbana Champaign	610	3.42	78.3	10389	3596	4
College of William & Mary	655	3.59	83.3	3452	928	4
University of Virginia	643	3.61	88.3	9488	2351	4

(Continued)

College or University	Average	Average	Percent equal	Number	Number of	Score
	SAT Score	AP Score	or above 3	of Exams	Candidates	
<b>Selective (Continued)</b>						
Carnegie Mellon University	641	3.79	87.0	3310	852	4
Cornell University	660	3.81	88.4	9826	2315	4
Duke University	685	3.91	89.5	6615	1467	4
Stanford University	703	4.13	92.1	8390	1749	4
Yale University	730	4.25	94.4	5169	998	4

*Note.* All data from ETS (2000).

"3's", with about half of the exams qualifying. Non-selective schools usually accept a "3", but only one out of three exams qualify. Overall, scores of 5s and 4s qualify, 55% of 3s pass, and essentially all 1s and 2s fail, for an average pass rate of 49%. (Hyser,1999).

Of all exams that result in advanced placement credit, 32% came from students applying to highly selective colleges, 63% from selective colleges and only 5% from non-selective colleges. Overall college attendance divides approximately into 18% of students at highly selective colleges, 36% at selective institutions and 46% at non-selective schools (ETS, 2000; College Board, 2000, AP Results).

Extreme cases are Yale and the predominantly minority Albany (GA) State U. Applicants forwarding AP exams to Yale's admissions office take an average number of 5.2 AP exams (ETS, 2000). Three quarters of these 5169 exams (about 3900) from 998 candidates meet Yale's "4" requirement. At Albany State, with a freshman class of 660, 53 AP candidates take 87 exams, of which five are acceptable at a score of 3 or higher (ETS, 2000).

### **How AP Performance Impacts College/University Placement Decisions**

The College Board's literature has emphasized the positive aspects of the increase in numbers of test takers, but has paid less attention to actual performance of AP students (College Board, 1994, 1995, 1996, 1998, 2008). Table 4 provides data on actual choices made by students in calculus in 14 colleges and Table 3 provides state by state AP scores.

Table 3

*Advanced Placement Scores by States*

State	Number of tests per 100 graduates	Performance	
		Percent of scores of 3 or higher	Percent of scores of 4 or higher
Missouri	13.6	74.6	44.3
Connecticut	47.0	72.1	43.8
Massachusetts	46.7	72.0	43.4
New Jersey	42.3	70.6	42.7
Illinois	33.3	72.3	42.7
Hawaii	34.9	67.2	41.6
Maryland	48.0	71.5	41.5
Delaware	40.5	71.2	41.4
New Hampshire	32.4	70.4	41.3
California	55.9	65.7	37.5
Rhode Island	29.8	69.4	37.4
North Dakota	9.3	72.1	37.2
Tennessee	24.2	64.7	36.5
Washington	23.6	68.4	36.5

(Continued)

State	Number of tests per 100 graduates	Performance	
		Percent of scores of 3 or higher	Percent of scores of 4 or higher
Wisconsin	29.6	68.3	36.4
Iowa	14.2	70.0	36.3
Montana	17.1	66.9	36.3
Pennsylvania	27.1	65.7	36.0
Virginia	56.7	65.6	36.0
Louisiana	10.8	63.8	35.3
Colorado	36.5	66.3	35.2
Utah	63.5	67.6	35.1
New York	62.4	64.1	35.0
Oregon	19.9	67.1	34.9
Ohio	24.5	65.5	34.9
Wyoming	8.1	63.7	34.8
Maine	26.1	67.4	34.4
Kansas	13.7	64.6	34.3
Michigan	26.8	65.3	34.0
Vermont	31.6	64.5	33.9

(Continued)

State	Number of tests per 100 graduates	Performance	
		Percent of scores of 3 or higher	Percent of scores of 4 or higher
Idaho	16.2	67.1	33.5
Arizona	27.5	63.0	33.1
Georgia	34.0	60.3	32.6
Alaska	39.2	63.6	31.3
North Carolina	42.6	59.9	30.9
Texas	38.0	57.8	30.8
Nebraska	12.1	62.7	29.9
Florida	54.5	56.2	29.5
Minnesota	28.6	58.6	29.1
New Mexico	21.9	56.1	29.1
Oklahoma	19.7	58.8	28.9
South Carolina	44.5	55.1	28.5
Alabama	21.0	57.3	28.3
Nevada	31.7	56.0	26.2
West Virginia	15.7	55.2	24.3
Kentucky	23.5	50.7	24.2

(Continued)

State	Number of tests per 100 graduates	Performance	
		Percent of scores of 3 or higher	Percent of scores of 4 or higher
South Dakota	16.5	55.5	24.0
Arkansas	15.3	52.0	23.9
Indiana	21.6	50.2	23.4
Mississippi	14.2	45.5	19.9

*Note.* All data from College Board (2008). States are ordered from highest

Note that the majority of incoming students without an AP background either took no math or enrolled in a remedial course. Also, only a small fraction (22%) of students with a score of three ("qualified" in Table 1) actually took an advanced course, although the majority (61%) placed out of the remedial course. These results show that, for scores of "3" and lower, the AP Calculus AB examination is no longer acting as an advanced placement, but more as a placement examination. (Students with a score of "1" or "2" usually are placed in the remedial course. Students with a score of 4 or 5 are likely to take an advanced course.)

The College Board endorses continuing the expansion rate of AP for the next decade (College Board, 2008). What would be the outcome of this policy? Classical economics says that the decision to increase production hinges on the marginal rate of

return. Additional production increases profits up to the point of diminishing returns, after which losses outweigh gains. There are also intangible limits on expansion. If a farmer plants to the point that the grain becomes poor in quality, or the land is damaged by erosion, the damage to his/her reputation or land may not show in dollars and cents, but it could be important in the long run.

Table 4

*Actual Placement of Calculus Students in 14 Colleges*

AP Score in Calc AB	Percentage taking first HS calculus course at level shown				
	No Course	Remedial	1st Calc	2nd Calc	3rd Calc
No AP exam	29%	45%	21%	3%	1%
3 or higher	24%	17%	37%	22%	2%

*Note.* All data from ETS (2000).

Likewise, expansion of the AP program reaches diminishing returns, as the marginal yield of pupils qualifying drops (Table 4, last column). Table 4 is based on a conservative projection of present trends, such that all selective colleges will no longer accept a "3". Actually, some colleges now require a "5" for AP in some subjects and some give no AP credit for English Literature.

### The Expanding Role of AP and IB in College Admissions

Begun in 1955, the original intent of the Advanced Placement program was to provide students the opportunity to take college-level coursework and earn college credit while still in high school. Initially, AP was used almost exclusively for purposes

of college credit and placement, as distinct from admissions. One difficulty in using AP in admissions decisions is that students ordinarily do not take advanced courses until their junior and senior years in high school, and their scores on the end-of-course AP exams are not available in many cases until well after the admissions process is completed. For that reason, colleges and universities first used AP exam scores mainly to award course credits, allowing high-achieving students to place out of introductory courses and move directly into more advanced college work (Commission on the Future of the Advanced Placement Program [CFAPP], 2001).

The expansion of AP into the area of admissions began only gradually and did not accelerate until the 1980s. This development appears to be confined to highly selective colleges and universities, reflecting those institutions' need to make increasingly fine distinctions among growing numbers of applicants (National Research Council, 2002). According to a recent survey of deans of admission from 264 colleges and universities conducted by the National Research Council, the primary rationale for increased emphasis on AP and other honors courses in admissions is to assist in identifying highly qualified students.

Because past performance is deemed a strong predictor of student performance, admissions officers carefully review applicants' transcripts to determine how well and to what extent the applicants have taken advantage of the school and community-based opportunities available to them in high school. Admissions personnel generally view the presence of AP or IB courses on a transcript as an indicator of the applicant's willingness to confront academic challenges (National Research Council, 2002).

The International Baccalaureate program was developed in the late 1960s to provide an international standard of secondary education for children of diplomats and others stationed outside their countries, but are now also offered by many schools in the U.S. during the last two years of high school. In contrast to the AP program, which aims to provide discrete college-level courses for students in high school, IB courses are all a component of an integrated program designed to prepare students for college (National Research Council, 2002).

AP and IB courses are useful to admissions officers at selective colleges and universities for other reasons as well. Such courses may serve as indicators of the quality of the academic program offered by the applicant's high school and thereby assist in comparing students from different schools. Moreover, consideration of AP, IB, and honors courses in admissions decisions can serve an important incentive or "signalling" function in driving needed changes in the schools (Kirst, 1998). Especially for leading public universities, emphasis on AP, IB, and honors as admissions criteria can set de facto standards for public schools in their states, creating pressure on the schools to upgrade curricula and instruction. At the same time, students have the incentive to challenge themselves to attempt more rigorous coursework, knowing that this will be viewed favorably in their college applications. The incentive or signalling effect of college admissions criteria for students and schools was one of the primary considerations leading to the adoption of AP and IB as admissions criteria (Kirst, 1998).

Today, almost all selective colleges and universities give special consideration to AP, IB, and honors courses in admissions decisions, although the manner in which

this information is used varies from institution to institution. Some, such as the University of California, recalculate an applicant's high-school grade-point average (HSGPA) to give additional "bonus points" for approved AP/IB/honors coursework. Others do not recalculate HSGPA but use the HSGPA reported on an applicant's transcript, thus implicitly accepting the school or district weighting of AP/IB/honors (it appears that many high schools now give extra weight for such courses, although there are no good data on the extent of this practice). But beyond the calculation of HSGPA, the most widespread practice among admissions officers is to consider the number of AP/IB/honors courses as part of the comprehensive review of an applicant's high school record. Institutions that use a more quantitative form of comprehensive review often assign extra points to AP and IB courses, which are considered more rigorous than other honors-level courses. Institutions that use a more qualitative form of comprehensive review tend to use AP/IB/honors in other ways, such as comparing the records of applicants from the same high school or comparing the extent to which applicants from different schools have taken advantage of the curricular opportunities available to them (Kirst, 1998).

Given its expanding role in college admissions, the AP program grew dramatically during the 1980s and '90s. According to figures from the College Board, which owns and operates the program, the total number of students taking AP exams increased from 133,702 in 1980-81 to 1,017,396 in 2003-04, a 660% increase, and the total number of AP exams taken increased from 178,159 to 1,737,231, a 750% increase, during the same period (College Board, 2008).

### **Problems with AP and IB as Admissions Criteria**

The growing prominence of AP in “high stakes” admissions has also highlighted a number of problematic features. Disparities in availability and access to AP courses among underrepresented minorities and others from disadvantaged backgrounds have been well documented (Doran, Dugan, & Weffer, 1998; Ekstrom, Goertz, & Rock, 1988; Gamoran, 1992; Oakes, 1990; Oakes, Gamoran, & Page, 1992). Because students from poorer schools typically have less access to AP courses than those from schools with higher college-going rates, emphasis on AP coursework as a selection factor can adversely affect their chances of college admission. Although many states have adopted policies encouraging expansion of AP coursework in disadvantaged schools (Hurwitz and Hurwitz, 2003; Santoli, 2003), participation in AP, IB, and other honors-level courses remains sharply skewed along socioeconomic and racial/ethnic lines. One reason for these persistent group disparities may be because, even within the same schools, low-income and underrepresented minority students tend to be tracked into non-college preparatory work and thus enroll in AP and honors-level courses at much lower rates than other students (CSU Institute for Education Reform, 1999; Oakes, 1985).

The growing emphasis on AP in “high stakes” admissions has had unintended consequences. Like many other aspects of the admissions process at highly selective institutions, AP has become a significant factor in what former University of California President Richard Atkinson has called the “educational arms race,” as applicants and their parents seek every advantage to improve their chances of acceptance (Atkinson,

2001). For example, it is now common for upper middle-class parents to evaluate and choose high schools for their children based on the number of AP courses offered at those schools, thereby placing great pressure on schools to expand their AP offerings (Mathews, 1998). According to a recent evaluation of AP and International Baccalaureate (IB) programs by the National Research Council, this pressure can lead schools to offer more advanced courses than they are able to support adequately with trained teachers and other resources (National Research Council, 2002).

Some schools use the results of AP or IB examinations to evaluate teachers, the consequence of which may be to discourage potentially low-scoring students from taking the courses or the examination. It is not uncommon for selective colleges to view the existence of AP or IB courses on an applicant's transcript as an important part of their evaluation of the student's intellectual and academic motivations. Without any measure of the quality of the student's achievement in such courses, however, this emphasis on the number of AP or IB courses on a transcript leads many students to enroll in the courses without a commitment to mastering the material (National Research Council, 2002).

A large and apparently growing number of students now enroll in AP coursework without taking the associated AP exams. AP differs considerably in this respect from the IB program, in which examinations are considered an integral part of the coursework and virtually all students take the exams (Campbell, 2000). The Commission on the Future of the Advanced Placement Program estimated in 2001 that over a third of AP students do not sit for the examinations, although this is a rough,

overall estimate and varies subject to subject and from state to state (CFAPP, 2001).

The National Research Council has commented pointedly on the differing expectations of the IB and AP programs regarding test completion:

It is interesting to note that a far larger percentage of IB than AP students take the final examinations. The IBO (International Baccalaureate Organization) promotes the idea that IB courses prepare students for success in college and in real life. The examinations, students are told, are an integral part of the course and are the best way for them to demonstrate to themselves and others that they have achieved competence. In contrast, AP materials focus primarily on the usefulness of AP test scores for college credit and placement. If students lose interest in earning credit or placement or the colleges at which they plan to matriculate do not accept AP credits, they may choose not to sit for the examinations (National Research Council, 2002).

Another unintended consequence of the emphasis on AP coursework in college admissions is grade inflation. Many high schools and colleges give “bonus points” or extra credit for AP and other honors courses so that, for example, a “B” grade in an AP course is counted as the equivalent of an “A” grade in a regular course, thereby increasing the grade points from three to four. With so many students now taking substantial numbers of AP and other honors courses in order to improve their chances of admission to college, high school grade point averages have soared (National Research Council, 2002).

But perhaps the most problematic aspect of AP’s expanding role in “high stakes” admissions is the extent to which this development has occurred largely

unexamined and with little hard evidence of the validity of AP coursework as a selection criterion. Although the College Board and others have conducted research on the relationship between students' AP exam scores and their subsequent performance in college (College Board, 2008, AP Data), little research has been done on the predictive validity of AP coursework per se. Probably the most frequently cited research in support of employing AP coursework as an admissions criterion is Adelman's (1999) influential study, *Answers in the Toolbox*, which concluded that the most powerful predictor of college graduation is the "academic intensity" of a student's high school curriculum. Yet while Adelman did include AP courses as one of several components of his composite index of "academic intensity," the study was never intended as a systematic examination of AP, and in fact Adelman's data suggest that, compared to other indicators of "academic intensity," AP courses were among the weaker predictors of college outcomes.

In its recent review of the Advanced Placement and International Baccalaureate programs, the National Research Council (2008) noted the scarcity of systematic research on the predictive or "consequential" validity of these programs.

Little evidence is available for evaluating the long-term effects of the AP and IB programs. For instance, the National Research Council (2002) could not find systematic data on how students who participate in AP and IB fare in college mathematics relative to other students. While the College Board (2007) and a few colleges that receive IB students have conducted some isolated studies addressing how AP or IB students

perform in college, the inferences that can accurately be drawn from the findings of these studies are ambiguous (National Research Council, 2002).

Extant studies have typically examined the validity of using AP exam scores to place students out of introductory college courses (see, for example, Morgan & Ramist, 1998), but few, if any, have examined the use of AP, IB, and other honors-level coursework as admissions criteria.

## Chapter 3

The purpose of this study is to examine the impact of student enrolment in the AP or IB programs on college admissions decisions at selective U.S. colleges and universities. The methodology of the study is presented in this chapter, including sample selection, research methods, data collection, data analysis and limitations of the study.

This study employs a mixed-method approach, incorporating interviews with admissions personnel from selective colleges and universities in the U.S. and a quantitative tracer study of two international schools; of the two international schools, one offers the IB program and the other offers the AP program. This strategy will allow for the use of the quantitative data to assist in explaining and interpreting the qualitative results (Creswell, 2003). Mixed-method designs can help expand understanding of the topics being explored beyond those gained from using a single research method (Creswell, 2003).

A purposive sampling of colleges and universities is selected for this study. With purposive sampling, a sample is drawn based on particular purposes or judgments (Creswell, 2003). Since the purpose of this study is to identify the influence of student enrolment in the AP or IB programs on college admissions decisions at selective U.S. colleges and universities, the sample includes colleges or universities that are selective. The process for determining their college and university selectivity is based upon admissions percentages provided by the College Board, specifically, the percent of applicants admitted.

The colleges and universities in this sample have been divided into three categories of selectivity based upon percent of students admitted from their applicant pools. The categories are as follows: 1-24% admitted, 25-29% admitted, 30-64% admitted. There are 10 colleges or universities in each of the three categories.

In addition to the qualitative interviews, tracer studies from two international schools (The American School in London and Tasis England) will be compared regarding AP/IB enrolment and college matriculation. Tracer studies are surveys carried out to evaluate the labor market experience of graduates (Pang, 1978). This study will not focus on labor market experience but on student AP or IB enrolment and where graduates of the American School in London and Tasis England will attend college or university. Before 1970, tracer studies, as a method of obtaining regular feedback on the labor market performance of graduates were unknown (Pang, 1978). In the early 1970s, the major post-secondary technical and tertiary institutions became convinced of the usefulness of tracer studies and began carrying them out regularly (Pang, 1978). In fact, most secondary schools today employ several tracer studies to determine trends in student graduates and their college or university matriculation; therefore, these tracer studies are also easily accessible. Tracer studies are also short and uncomplicated, and can easily be completed by respondents (Pang, 1978). This study cross-referenced IB and AP enrolment student information with the college matriculation lists. Also, the data collected by tracer studies can be easily analyzed and understood by non-statisticians (Pang, 1978).

Quantitative data is gathered from tracer studies of school records at the American School in London (ASL) and TASIS England (TASIS), specifically college matriculation lists and IB or AP enrolment. Both schools are located in the United Kingdom, serve a population of students from kindergarten through grade 12, and are comprised of similar constituencies made up primarily of US expatriates. These two schools were chosen because they are similar in make-up, population, and location. While similar in many ways, these two schools follow different external curricula: ASL offers the Advanced Placement program through AP classes and examinations and TASIS offers the International Baccalaureate program through the prescribed IB diploma program. These results provide valuable matriculation information which complements the interview data. See Table 8 for demographic school data from the American School in London and Tasis England.

The aim of data analysis is to reduce and synthesize information – to make sense of it – and to allow inferences about populations (Creswell, 2003). Creswell suggests that when considering alternative methods for data analysis or interpretation, the evaluator needs to determine what methods of data analysis and interpretation are appropriate for the questions the researcher is trying to answer, the information that the researcher plans to collect, and the methods the researcher will use to collect information. The researcher also needs to determine what methods of data analysis and interpretation are most likely to be understood and to be credible to the audiences who will receive reports (Creswell, 2003). These methods are appropriate for the research questions that the researcher is trying to answer and are most likely to be

Table 8

*School Comparison Information*

	The American School in London	Tasis England
Student Population (High School)	443	485
Curriculum Offered (AP or IB)	Advanced Placement	International Baccalaureate Diploma Program
Location	London, United Kingdom	Surrey, United Kingdom
Academic Program	College Preparatory	College Preparatory
Accreditation	Middle States Association & the European Council of International Schools	Middle States Association & the European Council of International Schools
Class of 2008	100	125
% of students holding a US Passport	84%	78%
% of graduating class enrolled at a four- year college	100%	100%
Tuition	£20,800	£18,100

*Note.* All information gathered from [www.asl.org/reults](http://www.asl.org/reults) & [england.tasis.com/matriculation](http://england.tasis.com/matriculation)

understood and to be credible.

The first data collection method utilized in this study is interviews. Qualitative interviews are used for learning the perspectives, attitudes, behaviors, and experiences of others (Creswell, 2003). The interviews in this study will form the bulk of the research. It was determined that the depth of qualitative interviews would provide the ideal method of collecting the research. Only through hearing and interpreting the stories of others through interviews can the evaluator learn the multiple realities and perspectives that different groups and individuals bring to an object or experience (Creswell, 2003). In this study, the researcher interviewed admissions officials from 30 different colleges and universities on the topic of admissions criteria and how student enrolment in the AP or IB programs influences the admissions process. Interviews will allow clarification and probing, and permit exploration and discovery (Creswell, 2003). Each college or university has specific admissions criteria and the interview format allows for individual replies to be examined. Interviews are useful when the nature of the information to be collected is more ambiguous and greater depth in information is needed than other forms of data collection (Creswell, 2003).

The second data collection method utilized in this study is a quantitative tracer study of school records at the American School in London and TASIS England, specifically college matriculation lists and IB or AP enrolment. These official records should provide an accurate comparison of the college matriculation of students enrolled in the AP program at ASL and the matriculation list of students enrolled in the IB

program at TASIS. Secondary schools create student matriculation lists yearly; therefore, the records are easily accessible.

Data collection methods must be sanctioned by the proper authorities (Creswell, 2003). This study will be reviewed by the University of Minnesota Institutional Review Board and once permission has been granted to collect the data, informed consent forms will be sent to all selected interview participants and to the dean of students from both TASIS and ASL (See Appendices A and B for the Informed Consent Forms).

Interviews took place electronically using *Skype*, a free video-conferencing system. If a participant does not have access to *Skype*, a telephone interview will be conducted.

Interviews were recorded on *Skype* or via telephone and transcribed. (The researcher has access to *Skype*, which provides a free video/audio recording within the system and a teleconferencing machine with recording capabilities) After transcription, interview data will be deleted.

Matriculation lists and IB/AP enrolment information are provided by the dean of students at TASIS and from the dean of students at ASL. This data will be sent electronically using email.

Participant anonymity is assured at all times and names were not registered on the interview form. The records of this study are kept private. In the event of any publication of these findings, we will not include any information that will make it possible to identify an individual. Research records are stored securely and only researchers will have access to the records. The tapes made of the conversation will be erased once the data is transcribed.

Participation in this study is voluntary. Interview participants may choose not to answer particular questions or may choose to stop the interview at any time.

Qualitative data are analyzed for patterns and themes; categories are formed and revised as information is accumulated and new considerations emerge (Creswell, 2003).

A content analysis and summary of response types with their frequencies will be completed for the qualitative interviews in this study. Content analysis is a special type of analysis of qualitative information collected in textual form (Creswell, 2003). It makes use of procedures similar to those used in any qualitative analysis, that is, patterns and themes are identified; coding schemes are established; and, then, selected chunks of the textual information are coded, counted, and analyzed (Creswell, 2003). Coding categories may focus on either the actual content or underlying motives, emotions, or points of view (Guba & Lincoln, 1981). In this study, the coding categories are formed throughout the interview process.

Quantitative data are analyzed using descriptive and inferential statistical methods as necessary to answer the evaluation question of interest (Creswell, 2003). In this study, the researcher analyzed the differences between the IB enrolment and matriculation data from TASIS and the AP enrolment and matriculation data from ASL. Analyzing differences in outcomes between particular groups of students or clients and between different classrooms, schools, or sites can be a useful way to learn more about why the program works (Pawson & Tilley, 1997).

Delimitations: the interview respondents are limited to admissions personnel at US colleges and universities.

Limitations: validity is limited to the honesty of the participants. School records are limited to two schools: The American School in London and TASIS England. There were no risks anticipated in being in this study. The benefits to participation are a contribution to the understanding of how college admissions decisions are influenced by AP or IB enrolment. There was no compensation for participating in this study.

### **Research Instrument - Interview Questions:**

Questions:

- What is your role in admissions?
- What criteria do you use for admissions decisions?
- What are the most important qualifications for a prospective student to possess?
- Does enrolment in Advanced Placement classes factor into your admissions criteria? And decisions? If so, how?
- Does enrolment in the International Baccalaureate program factor into your admissions criteria? And decisions? If so, how?
- What do you see as strengths of the AP program? IB program?
- What do you see as weaknesses of the AP program? IB program?

Considerations for Conducting the Interview

1. Use the interview form as your script. Please follow the language closely.
2. Introduce yourself at the beginning of the interview; remind the participant about the purpose of the study and that his/her answers will be recorded. Remind the participant that:

- a. Interview results will be treated with confidentiality. At no time will respondents be identified by name.
3. Ask each question as it is written. Do not bias the responses.
4. If respondents want to think about their answers, give them appropriate time.
5. Acceptable questions available to you to help probe for further details include:
  - a. Tell me more.
  - b. Why do you feel that way?
  - c. Could you explain?
  - d. Do you have an example that you could share?
6. Let the respondent tell his/her story.
7. Listen closely for meaningful stories or details.
8. Be genuinely curious and inviting in your body language and tone.
9. Permit the respondent to skip a question if he/she is not comfortable or unable to answer.

(Creswell, 2003)

### **Interview Schedule**

Admissions personnel were contacted directly by email, introducing the researcher and the study purpose; inquiring as to whether they will participate in the study. Participants were sent the Informed Consent form and asked to sign (See Appendix A for Informed Consent Form).

The interview schedule was completed once contact had been made with admissions officials and was at their convenience.

## **Chapter 4**

The purpose of this study is to examine the impact of student enrolment in the Advanced Placement or International Baccalaureate programs on college admissions decisions at selective U.S. colleges and universities. The research results are presented in this chapter, including qualitative data collected from interviews and quantitative data from tracer studies.

### **Methods**

A purposive sampling of colleges and universities was selected for this study. Since the purpose of this study was to identify the influence of student enrolment in the AP or IB programs on college admissions decisions at selective U.S. colleges and universities, the sample includes colleges or universities that are determined to be selective in the admissions decision-making process. The process for determining their college and university selectivity is based upon admissions percentages provided by the College Board, specifically, the percent of applicants admitted. Tables 5 , 6 and 7 list the colleges and universities interviewed and their percentages of admitted applicants.

A total of thirty interviews with admissions personnel were conducted by the researcher. These interviews were conducted via *Skype*, an internet-based audio and video conferencing system, recorded, and transcribed. Prior to the interviews, the research design for this study was approved by the University of Minnesota's Institutional Review Board (IRB).

### **Interview Questions**

The interview questions are as follows: *What is your role in admissions? What are the most important qualifications for a prospective student to possess? How does enrolment in Advanced Placement classes factor into your admissions criteria and decision-making? How does enrolment in the International Baccalaureate program factor into your admissions criteria and decision-making? What do you see as strengths of the AP program? IB program? What do you see as weaknesses of the AP program? IB program?*

### **Results: Interview Question One**

*“What is your role in admissions decisions?”*

The purpose of this question was to ensure that all admissions personnel interviewed were involved in admissions decisions. All interview subjects responded that they are actively involved in admissions decisions.

### **Results: Interview Question Two**

*“What are the most important qualifications for a prospective student to possess?”*

All thirty interview subjects indicated that the two most important qualifications for admission are academic rigor and success in the classroom. The interviewees were very clear that selective colleges or universities in the US want prospective students to take the most challenging academic program offered at their secondary school (academic rigor) and be successful within it (success in the classroom) as measured by a grade point average (GPA) on the high school transcript. One interview subject put it quite succinctly: “Students must show that they have taken a rigorous course load at the

institution they attend and we also need to see a strong transcript showing success in that strong course load". Interview subjects recognize that their applicant pools are comprised of a wide variety of students coming from very different backgrounds and educational institutions; however, they clearly point to success in the most challenging academic program as the main influence on their admissions decisions. A different interview subject stated, "For us, it's certainly the rigor of the curriculum. We look for two main points on a student's transcript- first, what type of advanced coursework have prospective students done, whether it be AP or IB classes, and, two, we want to see students push themselves in the context of what's available within their school and then obviously their performance in those classes." Another interview subject stated, "We'll always turn first to the academic side of the application and in that way, quality of curriculum, and we always look for the most advanced coursework in each school, which in most cases in American style schools is going to be AP or IB, and then how well a student has done in context in grading within that particular school. We all acknowledge that A's and B's are not created equal across the board, depending on its school and its resources, but we want A's and B's, mostly A's, before we go anywhere with our admissions decision."

### **Results: Interview Question Three**

*"How does enrolment in Advanced Placement courses factor into your admissions criteria and decision-making"*

Four themes emerged from responses to this question.

Table 9

*Emerging Themes from Interview Question Three*

Themes	Number of responses	Percent of responses
Enrolment in AP courses is extremely important in admissions decisions if the AP courses are the most rigorous courses offered at the school.	22 of 30	73%
Enrolment in AP courses is extremely important in admissions decisions if the secondary school is committed to the AP program.	24 of 30	80%
Enrolment in AP courses is extremely important in admissions decisions because admissions personnel would prefer to enrol students who have taken advanced coursework.	25 of 30	83%
Enrolment in AP courses is extremely important in admissions decisions if applicants have performed well in the AP courses.	28 of 30	93%

According to 73% of the interview subjects, enrolment in AP courses is extremely important in admissions decisions if the AP courses are the most rigorous courses offered at the school. If the main considerations for admission are academic rigor and success in the classroom, it is essential to the admissions decision that

admissions personnel understand what constitutes academic rigor at the secondary schools represented through the applicant pool. One interview subject stated, “We need to know that potential students are pushing themselves at the highest level that they can and if AP courses represent the most challenging academic program, then we want to see these students taking a number of AP courses – that is essential to the admissions decision.” Admissions personnel see a consistency within secondary schools that offer the AP that places AP courses at the top end of the academic program. A different interview subject stated, “For the vast majority of secondary schools that offer the AP program, AP’s are at the top of the academic pyramid. We are a very selective institution and we want students who are at the top of this pyramid and that means that our decisions are very dependent upon enrolment in AP’s.” It was acknowledged that not all secondary schools that offer AP courses offer them as the most rigorous courses. Some secondary schools, from the admissions standpoint, offer an in-house created curriculum that would be considered the most rigorous academic program. A different interview subject commented, “It is important for us to understand what constitutes academic rigor at the secondary schools of our applicants and if AP courses are not considered the most rigorous courses, that would diminish their value in our admissions decisions.” Another interview subject interjected, “At some secondary schools, especially small secondary schools, very few APs may be on offer and their most rigorous courses may come from school-created courses – this would take away some of the prestige of the AP courses in our decisions.”

According to 80% of the interview subjects, enrolment in AP courses is extremely important in admissions decisions if the secondary school is committed to the AP program. It was clear from the admissions personnel that secondary schools differ greatly in their commitment to the AP program. Secondary schools are not bound by rules from the College Board setting quotas for AP courses on offer; therefore, there is great variety within secondary schools regarding the number of AP courses offered and training of faculty. One interview subject stated, “Some offer two and some offer twenty and that has a significant impact upon admissions decisions and AP enrolment – the less committed a school is to the AP, the less APs impact admissions decisions”. Admissions personnel noted that they also are aware of which AP’s are more rigorous. A different interview subject stated, “We want to see students take the hard AP courses like AP US History, AP Physics, AP Biology, AP Calculus. If a school is committed to the AP program, they need these courses. That commitment has an extremely important impact upon our admissions decisions.” Commitment to the AP program also is measured by the training of secondary school teachers within the AP curriculum and admissions personnel research these secondary schools in order to assess how serious they are about the AP. They ask questions while visiting schools such as: “Do AP teachers receive consistent training?” Or “Have AP teachers been involved in AP grading?” Admissions personnel from these selective colleges/universities are given regional assignments with the intention that these admissions people visit and study the schools in their region that fall in the college or university applicant pool.

According to 83% of the interview subjects, enrolment in AP courses is extremely important in admissions decisions because admissions personnel would prefer to enroll students who have taken advanced coursework as these applicants have been prepared for college-level work. Several of the interview subjects referenced research on AP test scores that suggests that AP test scores can accurately predict a student's success in college-level work. One interview subject stated that, "admissions decisions are based on predictive success at our institution – we are selective because not all students can handle our workload and admitting a student who is not capable would serve no one positively". It was quite clear that experience with high-level school-work is a preference. A different interview subject stated, "For us, success in multiple AP courses is like great job experience and the test scores and transcript are much like a resume and we all know how much employers value experience."

Admissions personnel even reference the success of previous students: a different interview subject stated, "It's the rigor of the work they do and the level at which they're expected to perform. In terms of knowledge base, in terms of people who come in with AP work, I think the professors have been pleased with where they stand with their knowledge base. In this regard, our admissions decisions are certainly affected at a high level by AP enrolment."

According to 93% of the interview subjects, enrolment in AP courses is extremely important in admissions decisions if applicants have performed well in the AP courses that they have taken. Interview subjects re-stated that the main qualifications are rigor AND success. One interview subject stated that, "We can't

simply look at AP courses taken; it really matters how you do if you want to be enrolled at our institution.” Admissions personnel interviewed suggested that applicants at selective colleges or universities will often overfill their transcript with AP courses taken as a means of “forcing” their application through the pool. Interview subjects state that there is no magic number of AP courses taken that will in some way provide a map into selective colleges or universities and in the absence of some specific number, applicants are more likely to go by a more is best approach, taking multiple AP courses and even starting in AP courses in grade nine or grade ten. A different interview subject stated, “I have seen transcripts that show AP courses being taken by high school freshmen in what seems like an obvious effort to fill that transcript with APs.” A different interview subject stated, “It’s not the number of APs taken as much as the balance of AP courses taken successfully as represented by good grades that have the most impact upon college admissions decisions at our institution.” It is not enough to know that students are enrolled in AP’s; they must be enrolled and succeeding and this is measured by grades throughout the year. A different interview subject stated, “We rely on mid-year or semester grades on a transcript to provide us with information regarding how a student is doing in his/her AP courses – our decisions are based upon not just AP enrolment but how well you are doing in that or those courses.” A different interview subject stated, “If an applicant has taken multiple APs but has mediocre grades in those courses, of course it would diminish the value of those APs in the admissions decision. Applicants must take the hard courses, the APs, but they must be successful with grades on transcripts that represent that success.”

## **Results: Interview Question Four**

*“How does enrolment in the International Baccalaureate program factor into your admissions criteria and decision-making”*

Three themes emerged from responses to this question.

Table 10

*Emerging Themes from Interview Question Four*

Themes	# of responses	% of responses
Enrolment in the IB Diploma program is extremely important in admissions decisions if the IB program represents the most rigorous courses offered at the school.	25	83%
Enrolment in the IB Diploma program is extremely important in admissions decisions if the applicants are enrolled in the entire IB Diploma program.	27	90%
Enrolment in the IB Diploma program is extremely important in admissions decisions if the applicants have performed well in the IB courses.	27	90%

According to 83% of the interview subjects, enrolment in the IB Diploma program is extremely important in admissions decisions if the IB Diploma program represents the most rigorous courses offered at the school. One interview subject stated,

“The IB Diploma program is known to be an extremely difficult academic program, taken as a whole. Even so, admissions people need to look at each secondary school to determine if it (the IB Diploma program) represents the most rigorous program – most of the time, it does.” A different interview subject stated, “People in admissions, like me, have a great understanding of the IB Diploma program and that is helpful because it provides a standard, actually kind of a global standard, for students enrolled in the Diploma program but that is not enough. We need to look at specific secondary schools in our applicant pool and determine where the IB fits into their specific academic program.” A different interview subject stated, “This rigor, the hardest academic program; this has the highest priority in admissions decisions – if a student wants to gain entry into a selective college like ours, then they must be in the IB Diploma program, and doing well, if, and this is a big if, the IB Diploma program is the most difficult and challenging academic program that they offer.” It was clear that admissions personnel interviewed understand that the IB program, taken as a whole, is a rigorous program but also acknowledge that the IB program may not constitute the most rigorous program at the secondary schools of applicants. A different interview subject stated, “We have seen that more and more secondary schools are offering the IB but still offer APs – in this situation, we want to know where the best students have been advised to go – is it the IB route or is it the AP route?” A different interview subject stated, “AP and IB are different – both are difficult when a student is fully committed to them. For us, the question is not really which one is better, but rather, at the high schools of our applicants, what represents the highest level of rigor. It may be the IB, it

may be the AP or it may be an honors track for a school that offers neither the IB nor AP.”

According to 90% of interview subjects, enrolment in the IB Diploma program is extremely important in admissions decisions if the applicants are enrolled in the entire IB Diploma program rather than a few courses. One interview subject stated, “The IB Diploma program is easy – if we read on a transcript that a prospective student is enrolled in the IB Diploma program, we know what the program entails, we know they are in it in every subject and we realize what type of commitment a student must make to succeed within it. I can’t tell you how helpful that is and how important it is to our decisions.” A different interview subject stated, “At the highest level of our decisions, we need to know if an IB student is enrolled in the whole thing; the Diploma. That commitment places that student above all other IB students and that is where an applicant wants to be.” It was clear in the interviews that selective colleges and universities wish to see applicants involved in the complete IB Diploma Program. A different interview subject stated, “If a student is enrolled in a few basic IB certificate courses, as opposed to the full Diploma program, and the Diploma program is offered at their school, their application for admissions at our institution will be denied.” A different interview subject stated, “IB certificates are an achievement but selective institutions like ours demand more. We want to see enrolment in the whole shebang.” According to 90% of interview subjects, enrolment in the IB Diploma program is extremely important in admissions decisions if the applicants have done well in the IB courses that they have taken. One interview subject stated, “Committing to the program

is easy. A student just signs up and becomes enrolled. That guarantees you nothing within an applicant pool at a selective college. You must succeed within the program – only those that are both committed and successful gain entry to schools like ours.”

Interview subjects were adamant about the success piece of the application. Interview subjects stated that it is not enough to simply be enrolled in the IB program. Students must receive good grades that are represented on transcripts in order for their enrolment to have an impact upon admissions decisions. A different interview subject stated, “Enrolment in the IB program alone holds no value. It’s simply a fact. The value, and this is the specific value in terms of admissions decisions, comes from success in the program. How do we measure that? We go straight to the transcript.”

### **Results: Interview Question Five**

*“What do you see as strengths of the AP program? IB program?”*

Interview subjects highlighted four main strengths of the AP program: it is a strong predictive tool for admissions personnel; it represents college-level work and how successful a student has been in this college-level work, it forces students to think at a higher level, and it is an easily recognizable program with a history that is known to admissions personnel.

In terms of being used as a predictor, interview subjects believe that success in AP courses, represented by grades on transcripts and test scores, can help in determining if an applicant has a strong chance to succeed. One interview subject stated, “The AP curriculum is a great predictive tool for us. We see a correlation between the AP transcript and final scores and the student’s performance and success at

our institution.” A different interview subject stated, “If a student has strong grades in AP courses, that student will most likely succeed at our institution. That has been our history with successful AP applicants.” A different interview subject stated, “Admissions decisions are based on whether we think a student would be successful here so we have to predict how things will go and strong grades in AP courses is a good way for us to predict success. This is at the core of admissions decisions.” A different interview subject stated, “At the end of the day we must gamble as to whether a student will succeed here. It is never a given but enrolment in APs helps us predict so I have to say that if a prospective student is enrolled in APs and doing well, that student is very likely to receive our highest level of priority in the decision.”

Admissions personnel believe that AP courses represent college or university level work. One interview subject stated, “It is my understanding that Advanced Placement courses were created to be just that, a hard academic course which allows you to place higher than your basic college or university 101 class. For example, if a student was successful in AP Biology, upon entering our institution, that student would start our biology sequence higher than simply Biology 101. AP biology is the equivalent of Biology 101 in my mind. That high school student just did college-level work.” It is a simulation of a college academic experience and students with an AP background enter college with an experience that allows them a certain comfort level with their academic expectations. A different interview subject stated, “The progression from high school to college leads students to work more on their own, outside of the classroom. Almost all of college-level work is done outside of the college classroom as students study,

research, and work. In a grade nine social studies course, 90% of the learning takes place in class. In grade ten, maybe 70% of the learning takes place in class. In college, we are at the opposite end of that spectrum. I believe that 90% of the learning in a college courses takes place outside of the classroom and an AP course simulates this. That is absolutely important, at the highest level, regarding our decisions.” A different interview subject stated, “The other thing about the AP program is that it provides a student the opportunity to experience what it will be like to be in a college class. The rigor, the fact that they will have to put in a lot of hours every day and every night, and to understand that the course work is going to increase, and that it’s only going to get more difficult is significant.” A different interview subject stated, “I think the AP is a strong college base curriculum that our students can use more or less provide the right footing for their collegiate experience.”

Admissions personnel see the AP as a curriculum that forces students to think at a higher level. One interview subject stated, “If you look at the AP curriculum, and admissions people must look closely at the AP curriculum, you will notice that the concepts are extremely intellectual. Students must be well above a base level of intelligence. They must be at a very high level of intellectual curiosity and understanding. Let’s face it, you are supposed to think differently when you get to college because in four years, we are going to give you a diploma that says that you are an expert in your field. You must be at this high level of intelligence before you gain admission to our institution.” Critical thinking skills and advanced learning skills that are required at the college or university level are emphasized. A different interview

subject stated, “Strength wise, I think it demands students to learn at a higher level. It helps students think critically, for those who don’t feel comfortable doing so.” A different interview subject stated, “The research skills that are required within the writing component of AP courses, for example, show that a higher level of work and a different type of thinking are required to be successful. If a student has this experience, it has a very positive effect on the admissions decision.” Admissions personnel also note that this type of higher level thinking also spills over into the writing of prospective students. A different interview subject stated, “AP courses not only force students to think critically, it forces them to write critically. I see this as a major strength of the AP.”

Interview subjects believe that a major strength of the AP is that the program is a recognizable brand that has been in existence long enough to build a reputation that admissions personnel understand easily and have worked with before. The AP program has been in existence for decades and college admissions personnel understand what students gain through the program. One interview subject stated, “There is history with the AP program that provides validity and a measure of the past.” A different interview subject stated, “The AP program has been around long enough that it has become extremely reliable as a measure of student success that is certainly one of its greatest strengths.” A different interview subject stated, “Generations of AP students have come and gone through our institution and this gives us a measuring stick for the next generation of AP students.” Part of the reliability of the AP program, as stated by the interview subjects, comes from the course content that is consistent between AP courses

and certainly is consistent within the exams. A different interview subject stated, “We know the content of AP courses and, even though, there are great discrepancies between each secondary school’s approach to the AP, course content seems to be consistent and this adds to the reliability of the program which is one of the AP’s great strengths.”

Interview subjects highlighted three main strengths of the IB: it is a strong predictive tool for admissions personnel, it is connected, in that subjects are woven together which provides a breadth of knowledge, and it is writing intensive in every subject.

Admissions personnel believe that the IB program can be an extremely accurate predictor of student success at college or university. One interview subject stated, “There seem to be more and more secondary schools that are committing to the IB Diploma program and one of its greatest strengths is that grades within the Diploma program have served as valuable predictors for us on the college side.” A different interview subject stated, “Certainly, the greatest strength of the IB is that it helps us predict how a student will do once they arrive on campus. Isn’t that at the core of what my job entails? I need to make sure that the students I admit can handle the level of our institution. The IB helps me predict that.” The rigorous nature of the program, which is understood by admissions personnel, lends itself to this strength. A different interview subject stated, “The IB is difficult. It is meant to be difficult because it claims to be consistent with college work. That’s great for us because it helps us to predict.”

Admissions personnel know that if an applicant has performed at a high level within the courses of the IB program, it can strongly be inferred that such an applicant will do well

at institutions of higher education. A different interview subject stated, “The IB is an extremely good predictor of whether a student will have academic success at our institution.” A different interview subject stated, “We want rigor and success and if an applicant has proven himself/herself with the courses of the IB, then we can feel good about admitting that student. Therefore, admissions decisions are certainly impacted by success in the IB because it predicts success in college.”

One interview subject stated, “One of the great strengths of the IB is the connectedness of the courses within the Diploma program.” It was very clear that the admissions personnel interviewed believe this connection between courses to be a strength of the IB. A different interview subject stated, “Connecting the courses means synthesizing the information in one course with that of another. This parallels our approach which is to apply what you learn in each of our college courses to the world.” A different interview subject stated, “The fact that the IB requires students to apply concepts from one course to another requires complex thinking and I see that as a serious strength of the IB program.” Admissions personnel value the connection between courses because many of the selective colleges and universities offer academic programs that move beyond a departmental curriculum. A different interview subject stated, “It used to be that colleges and universities set you on a track. If you were a history major, you took history classes and that was it (beyond general ed. Requirements). Most good colleges and universities these days see strength in the diversity of an academic program. A history major these days might study courses from

ten different departments. Because of this, connecting your coursework between departments is a huge strength and that is the intention of the IB.”

The IB places and emphasis on writing and this is seen as a major strength by the admissions personnel interviewed. One interview subject stated, “Our institution demands writing at a high level. We are committed to this. IB students are forced to write and write well. We see this as a huge strength.” Strong writing skills are demanded by selective colleges and universities. A different interview subject stated, “I read over three thousand applications and that means over three thousand personal essays from students. It is easy to see who can write. Admissions essays do not lie. We want the students who can write and the IB Diploma program teaches students to write.”

### **Results: Interview Question Six**

*“What do you see as weaknesses of the AP program? IB program?”*

Admissions personnel highlighted three main weaknesses of the AP program: the commercialization of the AP and the College Board, teaching to the test as the main focus of secondary school teachers, and improper counseling or placement of students into the AP program because of college admissions.

The College Board is a for-profit organization. Rising costs of tests and resource materials are a constant struggle for secondary schools, especially secondary schools with budget concerns or concerns regarding student costs. One interview subject stated, “At the end of the day, the College Board is profit-making; they are a business and it’s hard to believe that there is not a conflict of interest between making a profit and

serving the millions of students that must utilize the College Board.” Eighteen interview subjects questioned the intention of the College Board. Is the College Board truly invested in what is best for students or what’s best for the College Board? A different interview subject stated, “How can a for-profit company focus on profits AND doing what is right for prospective college students? It’s a conflict of interest and I think profit-making comes first. If it was my company, profit-making would certainly come first.” It was very clear that admissions personnel are unclear about the intentions of the College Board. A different interview subject stated, “I think that there is a skepticism on the part of admissions people regarding the College Board and the organization’s intentions.” A different interview subject stated, “The College Board claims that they are a major resource for students and that may well be true but it is certainly at a major cost.” A different interview subject stated, “We always have to remind ourselves that the College Board is not a member institution but a vendor. Vendors are interested in profit-making.”

Interview subjects also expressed concern about the AP program in that test scores have become so important that secondary school teachers can find themselves teaching to the test rather than teaching for learning sake or intrinsic learning. One interview subject stated, “The AP teacher is in a conundrum. Does he or she teach the course with the interests of the students in mind or does the teacher cover as much of the stated and prescribed curriculum as possible so that the students will be better prepared for the test?” A different interview subject stated, “You would hope that the teachers of AP courses would focus on the students rather than the test but, I believe

this strongly, that the focus is on the exam.” From the admissions point of view, applicants who come from schools with a focus on teaching to the test may be successful with test scores and grades but certainly miss the value of education for learning. A different interview subject stated, “I think that the greatest weakness that I always hear about is that teacher’s kind of fall into that trap of teaching to the test rather than making sure students are getting a unified message of knowledge rather than just through raw memory.” A different interview subject stated, “But let’s face it, the teacher is under evaluation here as well. Teachers of APs want their students to do well on the exam and get into their first college choice, right? This means that the teacher is evaluating himself on the test scores and if he wants to do better, he will focus even more on the test because it will directly impact the scores and this will validate his teaching. I would call that a glaring weakness of the AP.”

Interview subjects also state that improper academic advising within secondary schools which results in students being placed in AP courses without sufficient foundation knowledge is a major weakness of the program. This may sound like a secondary school issue, however, admissions personnel feel that the message of the College Board is that AP enrolment paves the way to selective colleges or universities and that this message drives students and schools to fill AP classes. One interview subject stated, “Secondary schools understand that students must be in the most rigorous academic program in order to be admitted to selective colleges and this can lead to improper counseling and students being placed into AP courses that have no chance of success. This hurts everyone, especially the student.” A different interview

subject stated, “The only thing that is concerning is that students get over their heads and then taking the classes for the purpose we’re taking about and the hopes of getting into the elite colleges and the more competitive colleges and maybe aren’t as prepared as they should be for the courses and aren’t as into the subject matter but just want to have on the transcript that AP mark.” A different interview subject stated, “I think that sometimes students don’t get great counseling. If they don’t get good guidance right from the start, they may get themselves into a curriculum that’s way over their head. Let’s use an example. We’ve partnered with the United Pair of Colleges, assuming you’re familiar with it? Like the one in Norway, they’ve got a fairly large population of African students and some of them come from very impoverished nations where the educational systems were pretty rough and they want to be engineers. That’s great, but they throw them into 3 AP courses and they have no success. No one wins.”

Admissions personnel highlighted two areas of weakness within the IB program: predictive scores can be inflated by the secondary schools and improper counseling or placement of students into the IB program because of college admissions.

Secondary schools include predictive scores on IB tests for college applicants. The reason for this is because tests are given and test scores are provided well after the college admissions process has ended. Many secondary schools inflate these scores because they see them as make or break for their students applying to selective colleges or universities. One interview subject stated, “Let’s face it, teachers and college counselors from secondary schools have the best interests of their students in mind; of course they are going to inflate scores. They want their students to get into college.”

Colleges and universities ask secondary schools for this information along with grades in IB courses at the time of application. A different interview subject stated, “At application time, when we process it at the most serious point, we have no way of knowing how well an IB student is doing within the Diploma program so we have to ask the secondary school. Sometimes we receive reliable predictive scores and sometimes we receive highly questionable predictive scores. This is a huge IB weakness” Admissions personnel use these predictive test scores as a measure of the students success within the rigorous IB curriculum but too often, test predictive test scores are inflated. Admissions personnel agree that it is in the best interest of the secondary school to err on the higher end of predictive scores but they have seen this taken a bit too far. A different interview subject stated, “We are very leery of predictive scores. Are these scores accurate or are they inflated to bring about college acceptance?”

Similar to the thinking of admissions personnel around the weaknesses of the AP program, a majority of interview subjects feel that improper advising or counseling around IB Diploma program enrolment is a major weakness of the IB. One interview subject stated, “The IB Diploma program is a two-year commitment, across all of your subjects. You must be able to handle the commitment at the start of grade 11 and sometimes secondary schools err on the side of allowing entry, hoping that intellectual growth comes along soon. This is not always the case.” Admissions personnel at selective colleges and universities understand that their requirements for admission, specifically demanding that students take the most rigorous academic program, affects

this issue. A different interview subject stated, “We are well aware that our demands may have forced some secondary schools into allowing students in the IB Diploma program who might have been better served in a less rigorous program but that is a secondary school advising issue. We understand that not every student can attend our school and we hope that secondary schools understand that not all students can be successful in the IB Diploma program.”

Table 11

*Advanced Placement Program/IB Diploma Program Strengths*

Program	Strengths
Advanced Placement	<p>It is a strong predictive tool for admissions personnel.</p> <p>It represents college-level work and how successful a prospective student has been in college-level work.</p> <p>It forces students to think at a higher level.</p>
IB Diploma	<p>It is an easily recognizable program with a history that is known to admissions personnel.</p> <p>It is a strong predictive tool for admissions personnel.</p> <p>It is connected, in that subjects are woven together which provides a breadth of knowledge.</p> <p>It is writing intensive in every subject.</p>

Table 12

*Advanced Placement Program/IB Diploma Program Weaknesses*

Program	Weaknesses
Advanced Placement	The commercialization of the AP and the College Board is a weakness.
	Secondary school AP teachers sometimes teach to the test.
	Improper academic counseling or placement of students into AP courses can occur.
IB Diploma	Predictive scores can be inflated by the secondary schools.
	Improper academic counseling or placement of students into the IB Diploma program can occur.

**Tracer Studies: Quantitative Data**

The aim of data analysis is to reduce and synthesize information – to make sense of it – and to allow inferences about populations (Creswell, 2003). Creswell suggests that when considering alternative methods for data analysis or interpretation, the evaluator needs to determine what methods of data analysis and interpretation are appropriate for the questions the researcher is trying to answer, the information that the researcher plans to collect, and the methods the researcher will use to collect information. The researcher also needs to determine what methods of data analysis and interpretation are most likely to be understood and to be credible to the audiences who

will receive reports (Creswell, 2003). These methods are appropriate for the questions I am trying to answer and are most likely to be understood and to be credible.

In addition to the qualitative interviews, tracer studies from two international schools (The American School in London and Tasis England) were conducted regarding AP/IB enrolment and college matriculation. This study will cross-reference IB and AP enrolment student information with the college matriculation lists.

Both schools are located in the United Kingdom, serve a population of students from kindergarten through grade 12, and are comprised of similar constituencies made up primarily of US expatriates. These two schools were chosen because they are similar in make-up, population, and location. While similar in many ways, these two schools follow different external curricula: ASL offers the Advanced Placement program through AP classes and examinations and TASIS offers the International Baccalaureate Diploma Program. These results provide valuable matriculation information which will complement the interview data. See Table 8 for demographic school data from the American School in London and Tasis England.

Tables 13 and 14 represent the 2008 student college matriculation data for the two schools: the American School in London (ASL) and Tasis England. Table 5 focuses on the ASL and provides the school attended by each graduating student, the percentage of applicants accepted from the specific colleges or universities and the number of AP classes taken in secondary school.

Table 13

*ASL Class of 2008: Selectivity Index and Number of AP Courses Taken*

Student #	College or University	% Accepted from Applicant Pool	# AP's
1	Boston College	26	4
2	Macalester College	44	1
3	Wheaton College	44	1
4	Kenyon College	36	1
5	College of Charleston	66	2
6	Pratt Institute	52	2
7	Central Connecticut State University	62	1
8	University of Chicago	40	5
9	Rice University	25	4
10	University of Pennsylvania	21	6
11	SUNY Buffalo	52	4
12	Washington University	19	4
13	Stanford University	12	6
14	Hamilton College	28	5
15	Brown University	15	6
16	Haverford College	27	5
17	Georgetown University	21	6

(Continued)

Student #	College or University	% Accepted from Applicant Pool	# AP's	
18	Queens College, Canada	n/a		
19	Colby College	38	5	
20	George Washington University	37	6	
21	Hamilton College	28	5	
22	Indiana University	85	2	
23	Emory University	27	2	
24	Cornell University	17	6	
25	Bucknell University	34	3	
26	Boston University	57	4	
27	University of Pennsylvania	21	7	
28	George Washington University	37	7	
29	The Arts Center College of Design	74	2	
30	Villanova University	51	4	
31	Wesleyan University	28	5	
32	University of California	85	3	
33	Eugene Lang College	61	2	
34	Middlebury College	24	5	
35	Duke University	22	6	
36	Hamilton College	28	6	

(Continued)

Student #	College or University	% Accepted from Applicant Pool	# AP's
37	Columbia University	11	7
38	Arizona State University	91	2
39	Syracuse University	60	1
40	University of Pennsylvania	21	6
41	Middlebury College	24	5
42	Middlebury College	24	6
43	Geneva College	80	1
44	Emerson College	45	2
45	University of Maryland	49	4
46	University of Oregon	90	2
47	Syracuse University	65	0
48	Tufts University	28	4
49	University of Virginia	38	6
50	University of Miami	46	2
51	Northeastern University	47	3
52	University of Michigan	57	4
53	Colorado College	38	0
54	University of North Carolina	37	4
55	Princeton University	11	7

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(Continued)

Student #	College or University	% Accepted from Applicant Pool	# AP's
56	Colgate University	27	7
57	Georgetown University	21	6
58	Mount Holyoke College	52	4
59	Richmond College, UK	n/a	
60	Columbia University	11	7
61	Brigham Young University	69	3
62	Carleton University, Canada	n/a	
63	Smith College	48	4
64	Creighton University	82	0
65	Johns Hopkins University	27	4
66	Skidmore College	44	3
67	Middlebury College	24	5
68	Brown University	15	7
69	New York University	37	5
70	Pepperdine University	28	4
71	Johns Hopkins University	38	4
72	Georgetown University	21	6
73	Swarthmore College	22	5
74	Franklin and Marshall College	45	5

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(Continued)

Student #	College or University	% Accepted from Applicant Pool	# AP's
75	Emory University	27	3
76	Utah Valley University	100	0
77	Boston University	57	2
78	Hamilton College	28	5
79	Bowdoin College	25	6
80	Colby College	38	3
81	St. Edwards University	69	2
82	Dartmouth College	17	6
83	Georgetown University	21	7
84	Elon University	41	4
85	George Washington University	37	5
86	George Washington University	37	6
87	Yale University	10	7
88	Villanova University	51	4
89	University of North Carolina	37	5
90	University of Michigan	57	4
91	New York University	37	6
92	New York University	37	5
93	Princeton University	11	7

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(Continued)

Student #	College or University	% Accepted from	# AP's
		Applicant Pool	
94	University of Utah	85	0
95	Barnard College	27	4
96	University of the Redlands	66	0
97	American University	51	3
98	Lehigh University	28	4
99	Colorado College	38	2
100	University of Pennsylvania	21	6

The Class of 2008 at ASL consisted of 100 graduates who matriculated to colleges or universities with acceptance rates between 10-100% of applicants. Figure 1 provides the number of graduates by the number of AP courses taken in secondary school.

Figures 2, 3, & 4 below break down the ASL Class of 2008 into three categories of selectivity: 1-24%, 25-50%, and 50-100%.

Twenty-five ASL graduates matriculated to colleges or universities with acceptance rates between 1-24%. These are the most selective colleges and universities in the United States. The results show that no ASL students taking three or less AP courses were admitted to colleges or universities in this level of selectivity. Taking six or seven AP courses increases the chances of admission to very selective schools.

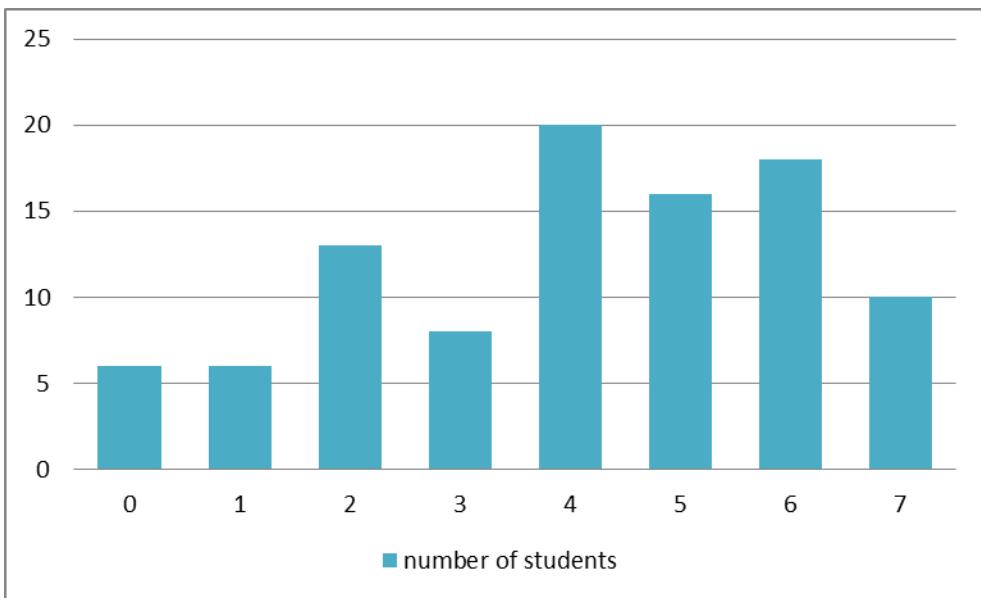


Figure 1. ASL: Number of total students by number of AP courses taken.

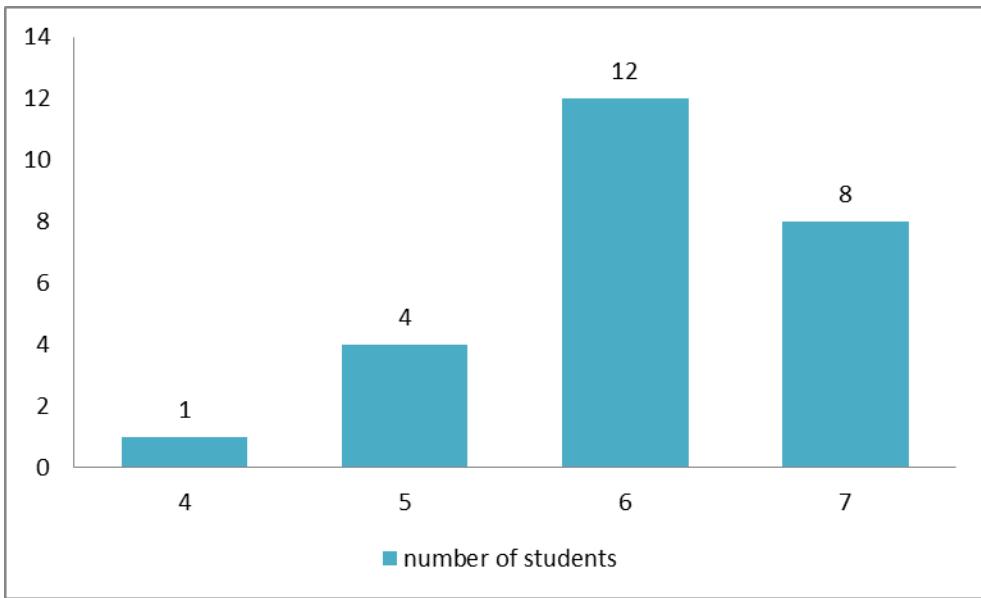
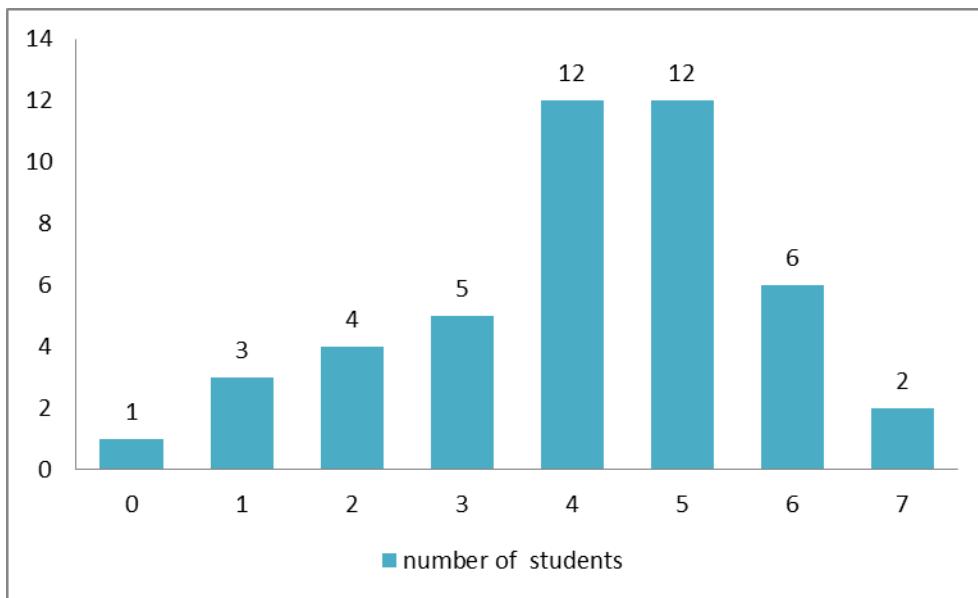


Figure 2. ASL: Total number of students who have taken between 4-7 AP courses by students who matriculated to colleges/universities with acceptance rates ranging from 1-24%.



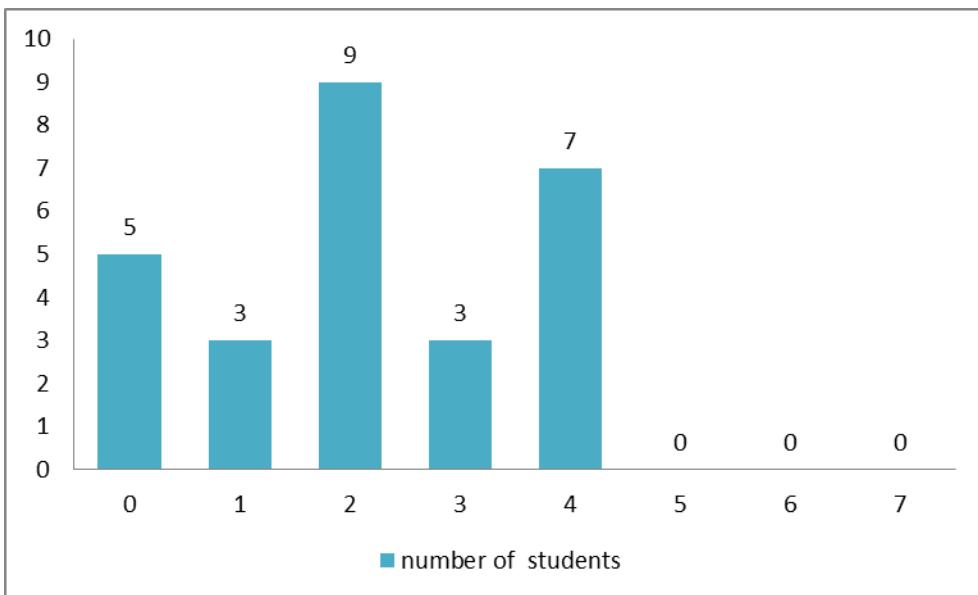
*Figure 3.* ASL: Total number of students who have taken between 4-7 AP courses by students who matriculated to colleges/universities with acceptance rates ranging from 25-50%.

Forty-five ASL graduates matriculated to colleges or universities with acceptance rates between 25-50%. These results show that, within this level of selectivity, any number of AP courses taken, including taking no AP courses, could result in acceptance. However, taking four or five AP courses increases the likelihood for admission.

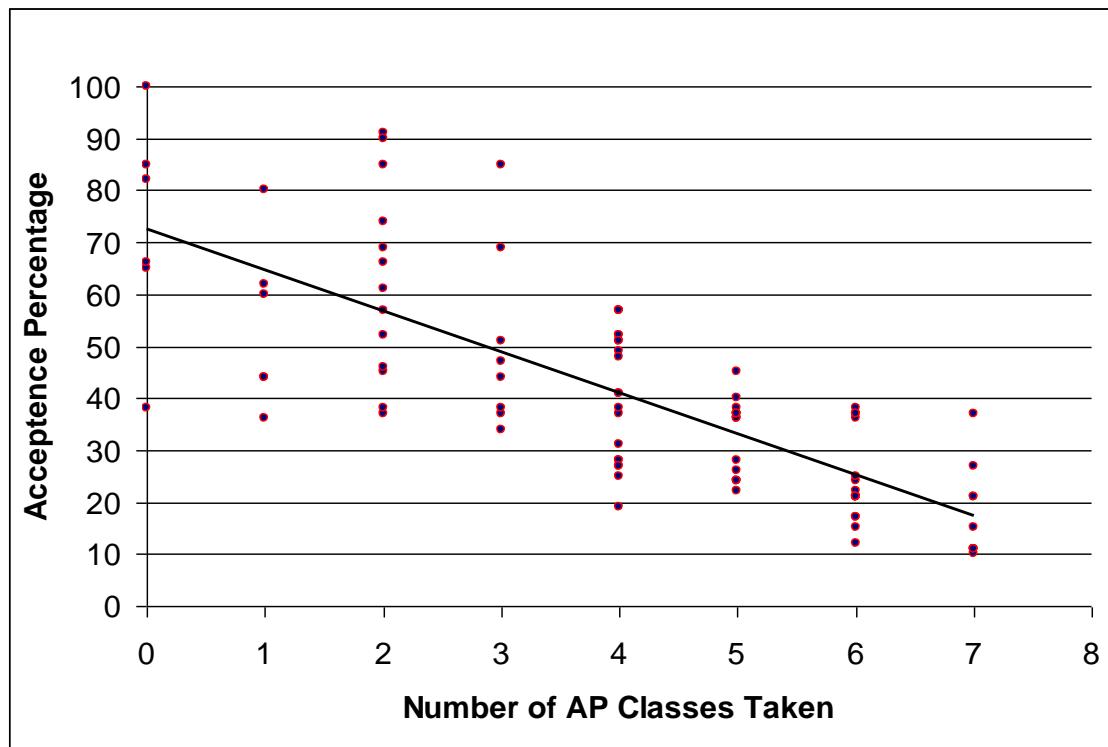
Twenty-seven ASL graduates matriculated to colleges or universities with acceptance rates between 51-100%. These results show that, within this level of selectivity, any number of AP courses taken, could result in acceptance. In fact, taking no AP courses at all does not place students outside of the realm of acceptance.

Figure 5 below is a graph that shows the correlation between acceptance percentages and the number of AP courses take in secondary school. That correlation is  $r = -.77$

which shows a very high negative correlation between the number of AP courses taken and acceptance percentages. Students who took seven AP courses are far more likely to matriculate to a college or university with a low acceptance percentage than students who did not take any AP courses. The more AP courses taken by students increases the likelihood that they will matriculate to a highly selective institution.



*Figure 4. ASL: Total number of students who have taken between 0-7 AP courses by students who matriculated to colleges/universities with acceptance rates ranging from 51-100%.*



*Figure 5.* Relationship between number of AP courses taken (x) and acceptance percentages (y).

Table 14 focuses on Tasis England and provides the school attended by each graduating student, the percentage of applicants accepted from the specific colleges or universities and whether each student participated in the IB Diploma program.

Table 14

*Tasis England Class of 2008: Selectivity Index and IB Diploma Program Enrolment*

Student #	College or University	% Accepted from Applicant Pool	% Accepted from IB Diploma program
			enrolment: yes - 1, no - 0
1	Babson College	37	1
2	Bard College	32	1
3	Bates College	29	1
4	Bentley College	43	0
5	Boston College	26	0
6	Boston University	57	0
7	Bowdoin College	25	1
8	Bryn Mawr college	46	0
9	Bucknell University	34	1
10	Colby- Sawyer College	90	0
11	Colgate University	27	1
12	College of the Holy Cross	48	0
13	Connecticut College	35	1
14	Cornell University	27	1
15	Drexel University	82	0
16	Drew University	77	0
17	Georgetown University	21	1

(Continued)

Student #	College or University	% Accepted from Applicant Pool	IB Diploma program enrolment: yes - 1, no - 0
18	Harvard University	9	1
19	Hofstra University	62	0
20	Iona College	67	0
21	Ithaca College	76	0
22	Marlboro College	58	0
23	Massachusetts Maritime Academy	68	0
24	New York University	37	0
25	Northeastern University	47	0
26	Pace University	75	0
27	Pennsylvania State University	62	0
28	Princeton University	11	1
29	Rensselaer Polytechnic Institute	78	0
30	Rhode Island School of Design	35	1
31	Rochester Institute of Technology	69	0

(Continued)

Student #	College or University	% Accepted from Applicant Pool	IB Diploma program enrolment: yes - 1, no - 0
32	Sarah Lawrence College	45	0
33	Seton Hall University	84	0
34	Suffolk University	82	0
35	Syracuse University	65	0
36	The Catholic University of America	81	0
37	George Washington University	37	1
38	Trinity College	39	1
39	Tufts University	28	1
40	University of Delaware	47	0
41	University of Maryland, College Park	49	0
42	University of New Hampshire	72	0
43	University of Pennsylvania	21	1
44	University of Rochester	48	1
45	University of Vermont	80	0
46	Ursinus College	75	0

(Continued)

Student #	College or University	% Accepted from Applicant Pool	IB Diploma program enrolment: yes - 1, no - 0
47	Villanova University	51	0
48	Wellesley College	34	1
49	Wentworth Institute of Technology	60	0
50	Wheaton College	44	0
51	Yale University	10	1
52	Bowling Green State University	90	0
53	Bradley University	91	0
54	Calvin College	98	0
55	Carnegie Mellon University	n/a	
56	Denison University	39	1
57	Indiana University at Bloomington	85	0
58	Kendall College of Art and Design	83	0
59	Macalester College	44	1
60	Marquette University	70	0

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(Continued)

Student #	College or University	% Accepted from Applicant Pool	IB Diploma program enrolment: yes - 1, no - 0
61	Miami University	n/a	
62	Minneapolis College of Art and Design	77	0
63	Northwestern University	30	1
64	Purdue University	85	0
65	University of Illinois	75	0
66	University of Notre Dame	32	1
67	University of Wisconsin, Madison	68	0
68	Valparaiso University	83	0
69	Washington University in St. Louis	19	1
70	Wheaton College	51	0
71	Baylor University	66	0
72	College of William and Mary	31	1
73	Duke University	22	1
74	Eckerd College	72	0
75	Leon University	41	1

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(Continued)

Student #	College or University	% Accepted from Applicant Pool	IB Diploma program enrolment: yes - 1, no - 0
76	Emory University	37	1
77	Florida Atlantic University	56	0
78	Florida International University	47	0
79	Loyola University in New Orleans	68	0
80	Lynn University	80	0
81	North Carolina State University	66	0
82	Old Dominion University	69	0
83	Radford University	81	0
84	Rice University	25	1
85	Rollins College	53	0
86	Savannah College of Art and Design	68	0
87	Southern Methodist University	58	0
88	St. Edwards University	69	0
89	Stetson University	69	0

(Continued)

Student #	College or University	% Accepted from Applicant Pool	IB Diploma program enrolment: yes - 1, no - 0
90	The University of Tampa	50	0
91	The University of Texas, Austin	51	0
92	The University of Texas, Dallas	51	0
93	The University of Texas, San Antonio	99	0
94	Tulane University	44	1
95	University of Miami	46	0
96	University of Richmond	47	0
97	University of South Carolina	68	0
98	University of St. Thomas	92	0
99	University of Virginia	38	1
100	Wake Forest University	39	1
101	Washington and Lee University	29	0
102	Arizona State University	91	0
103	Brigham Young University	78	0

(Continued)

Student #	College or University	% Accepted from Applicant Pool	IB Diploma program enrolment: yes - 1, no - 0
104	Colorado College	38	0
105	Colorado School of Mines	87	0
106	Colorado State University	88	0
107	Eastern Washington University	83	0
108	Marymount College	n/a	
109	Pepperdine University	28	1
110	Portland State University	92	0
111	San Francisco State University	67	0
112	Santa Monica College	n/a	
113	Stanford University	12	1
114	University of Arizona	88	0
115	University of California at Davis	61	0
116	University of California at Santa Barbara	53	1
117	University of California at Santa Cruz	75	0

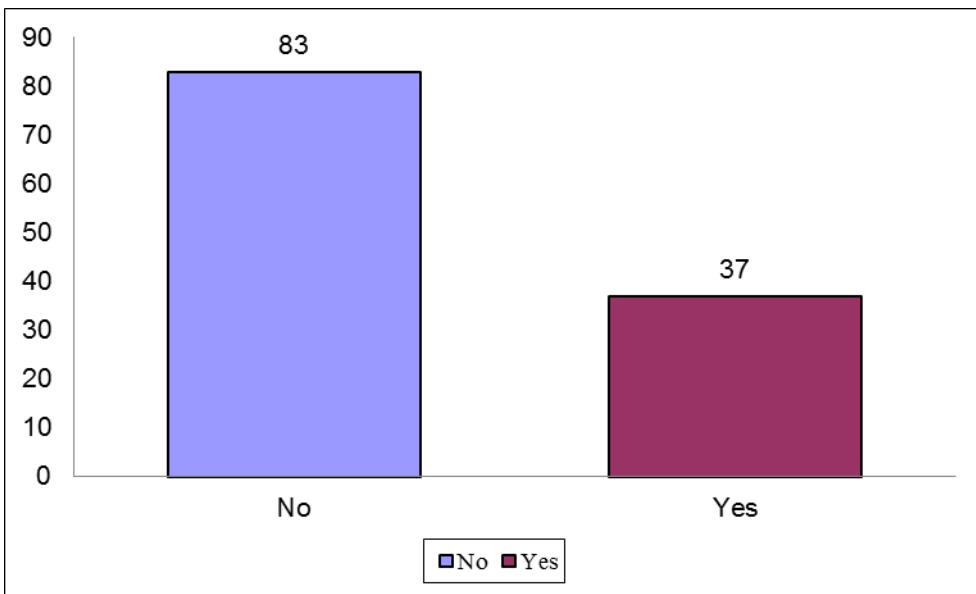
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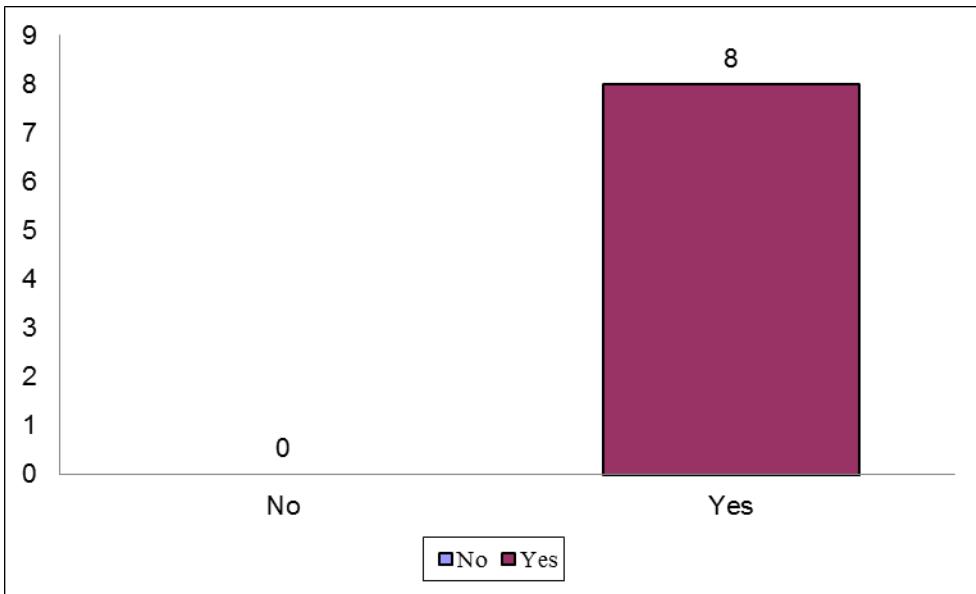
Student #	College or University	% Accepted from Applicant Pool	IB Diploma program enrolment: yes - 1, no - 0
118	University of Colorado at Boulder	88	0
119	University of Northern Colorado	82	0
120	University of Oregon	90	0
121	University of Puget Sound	71	0
122	University of Redlands	66	0
123	University of Southern California	27	1
124	University of the Pacific	56	1
125	Westmont College	68	0

The Class of 2008 at Tasis England consisted of 125 graduates who matriculated to colleges or universities with acceptance rates between 9-100% of applicants. Figure 6 below provides the percentage of total graduates by enrolment/non-enrolment in the IB Diploma program during secondary school.

Figures 7, 8, & 9 below break down the Tasis England Class of 2008 into three categories of selectivity: 1-24%, 25-50%, and 51-100%.

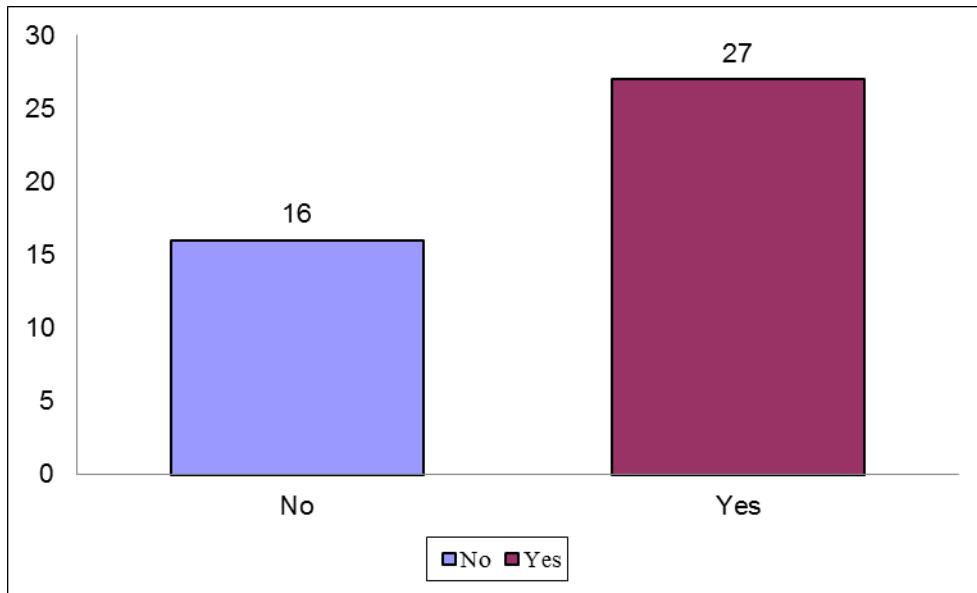


*Figure 6.* Tasis England: Number of total students by enrolment in the IB Diploma Program.



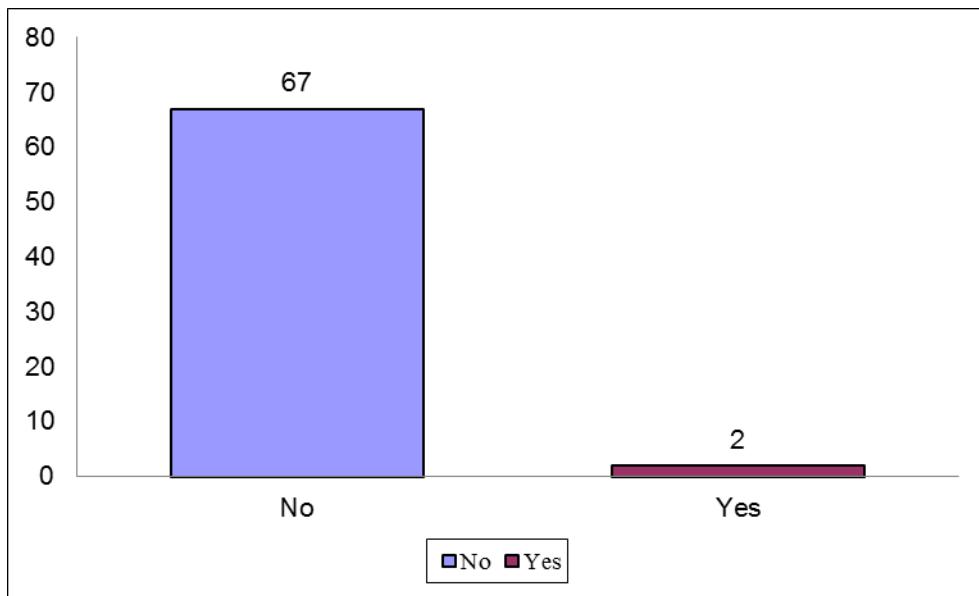
*Figure 7.* Tasis England: Total number of students enrolled/not enrolled in the IB Diploma program by students who matriculated to colleges/universities with acceptance rates ranging from 1-24%.

Eight Tasis England graduates matriculated to colleges or universities with acceptance rates between 1-24%. All eight students were enrolled in the IB Diploma program. Therefore, enrolment in the IB Diploma program increases the likelihood of admission to colleges and universities that are very selective.



*Figure 8.* Tasis England: Total number of students enrolled/not enrolled in the IB Diploma program by students who matriculated to colleges/universities with acceptance rates ranging from 25-50%.

Forty-three Tasis England graduates matriculated to colleges or universities with acceptance rates between 25-50%. These results show that students enrolled in the IB Diploma program are more likely to be admitted to colleges or universities within this level of selectivity, however, non-enrolment in the IB Diploma program does not mean that students will not be admitted. All students have a chance at admission in this level of selectivity, although, enrolment in the program increases the chances for admission.



*Figure 9.* Tasis England: Total number of students enrolled/not enrolled in the IB Diploma program by students who matriculated to colleges/universities with acceptance rates ranging from 51-100%.

Sixty-nine Tasis England graduates matriculated to colleges or universities with acceptance rates between 51-100%. These results show that, within this level of selectivity, students are very likely to gain admission without being enrolled in the IB Diploma program. In fact, there seems to be no advantage gained, in terms of admissions, for students not enrolled in the IB Diploma program.

In an attempt to show a statistic correlation between IB Diploma program enrolment and admission to selective colleges and universities, the researcher calculated the non-parametric correlation between IB Diploma program enrolment and acceptance ratio. The point biserial correlation is  $r_{pb} = -.75$  which shows a very high negative correlation between the enrolment in the IB Diploma program and acceptance percentages. Students who are enrolled in the IB Diploma program are far more likely

to matriculate to a college or university with a low acceptance percentage than students who are not enrolled in the program. Enrolment in the IB Diploma program increases the likelihood that students will matriculate to a very selective institution.

### **Summary of Quantitative Findings**

Results show that there is a strong relationship between taking six or more AP courses and gaining admission to very selective colleges and universities. The results also showed a strong relationship between being enrolled in the IB Diploma program and gaining admission to very selective colleges and universities. Taking multiple AP courses or simply enrolling in the IB Diploma program increase the likelihood of gaining admission to selective schools.

In both tracer studies, the  $r$  value showed a very high negative correlation: an  $r$  value of -.77 between the number of AP courses taken and acceptance percentages and an  $r$  value -.75 between enrolment in the IB Diploma program and acceptance percentages. These  $r$  values are almost identical.

## Chapter 5

The purpose of this study was to examine the impact of student enrolment in the AP or IB programs on college admissions decisions at selective U.S. colleges and universities. The significance of research findings is presented in this chapter.

### Summary of Research

This study set out to answer the following research questions: In what ways does high school student enrolment in the IB or AP influence undergraduate admission to selective institutions of higher education in the US? What reasons do admissions personnel give for supporting enrolment in AP or IB regarding college admissions? In what ways are admissions personnel critical of IB or AP program enrolment? What academic/non-academic factors influence admission to selective institutions of higher education in the US?

A total of thirty interviews were conducted by the researcher with admissions personnel from selective colleges and universities in the United States and two tracer studies were conducted from two similar international schools; one international school employs the IB Diploma program and the other school employs the AP program.

The researcher asked the following interview questions: *What is your role in admissions? What are the most important qualifications for a prospective student to possess? How does enrolment in Advanced Placement classes factor into your admissions criteria and decision-making? How does enrolment in the International Baccalaureate program factor into your admissions criteria and decision-making?*

*What do you see as strengths of the AP program? IB program? What do you see as weaknesses of the AP program? IB program?*

The tracer studies focused on AP/IB enrolment and college matriculation. . The results from the tracer studies provided valuable data which complimented the interview data.

### **Major Findings of the Research**

The following are the major findings of this research:

*Finding One: Enrolment in the IB Diploma program and enrolment in multiple AP courses increases the likelihood of admission to the most selective schools in the United States.*

The data from both tracer studies and the interviews support this statement. According to the tracer study from the IB school, all of the students accepted to the most selective colleges and universities, those with acceptance percentages ranging from 1-24%, were enrolled in the IB Diploma program. Similarly, the tracer study data from the AP school confirm that students admitted to the most selective colleges and universities, again, those with acceptance percentages ranging from 1-24%, were enrolled in no less than four AP courses.

From the tracers studies, the correlation between acceptance percentages and the number of AP courses take in secondary school is  $r = -.77$  which shows a very high negative correlation between the number of AP courses taken and acceptance percentages. Students who took seven AP courses are far more likely to matriculate to a college or university with a low acceptance percentage than students who did not take

any AP courses. The more AP courses taken by students increases the likelihood that they will matriculate to a very selective institution. Similarly, the correlation between IB Diploma program enrolment and admission to selective colleges and universities is  $r = -.75$  which also shows a very high negative correlation between the enrolment in the IB Diploma program and acceptance percentages. Students who are enrolled in the IB Diploma program are far more likely to matriculate to a college or university with a low acceptance percentage than students who are not enrolled in the program. Enrolment in the IB Diploma program increases the likelihood that students will matriculate to a very selective institution.

*Finding Two: It is clear from the interviews conducted that enrolment in the AP or IB programs does impact admissions decisions at selective colleges and universities in the United States.*

Admissions personnel interviewed have a deep understanding of these programs and support the challenges offered through these programs because it helps them to predict success for applicants at their institutions. They like the AP and the IB because both programs represent college level rigor that they demanded at their institutions. All thirty of the admissions people interviewed stated that a combination of a rigorous academic program and success in that academic program are the main criteria by which they determine if an applicant will be admitted to their institutions and they believe that the AP and IB programs offer that rigor. These same admissions personnel also went on to say that they recognize strengths as well as weaknesses within the programs or how the programs are offered at secondary schools but, overall, they feel that students

benefit in admission to selective colleges or universities in the US through enrollment in the AP or IB.

AP and IB scores serve as indicators of the quality of the academic program offered by the applicant's high school and thereby assist in comparing students from different schools. Moreover, consideration of AP, IB, and honors courses in admissions decisions can serve an important incentive or "signaling" function in driving needed changes in the schools. Scholar Michael Spence created the signaling model for economics and in his model, Spence showed that educational credentials signaled to employers that a prospective employee had greater ability and would, therefore, be worth more to the company (Spence, 1973). The informational value of the credential comes from the fact that the employer assumes that more education positively correlates with having greater ability (Spence, 1973). Especially for leading public universities, emphasis on AP, IB, and honors as admissions criteria can set de facto standards for public schools in their states, creating pressure on the schools to upgrade curricula and instruction. At the same time, students have the incentive to challenge themselves to attempt more rigorous coursework, knowing that this will be viewed favorably in their college applications. The incentive or signaling effect of college admissions criteria for students and schools was one of the primary considerations leading to the adoption of AP and IB as admissions criteria (Kirst, 1998). Today, almost all selective colleges and universities give special consideration to AP, IB, and honors courses in admissions decisions.

*Finding Three: Regarding admissions decisions, both the IB Diploma program and the AP program are seen by the admissions personnel to have strengths as well as weaknesses.*

Admissions personnel support the AP program because it is seen by admissions personnel to be a strong predictive tool, it represents college-level work and how successful a student has been in this college-level work, it forces students to think at a higher level, and it is an easily recognizable program with a history that is known to admissions personnel. Admissions personnel are critical of the AP program because the commercialization of the AP. Additionally, the College Board creates a conflict of interest for secondary school teachers because the emphasis in admissions decisions becomes the exam scores, not the knowledge learned. Therefore, secondary school teachers often teach to the test as the main focus rather than searching for the intrinsic values of learning.

Admissions personnel support the IB program because it is a strong predictive tool, it is connected in that subjects are woven together which provides a breadth of knowledge and it is writing intensive in every subject. Admissions personnel are critical of the IB program because predictive IB test scores can be inflated by the secondary schools in order to force college acceptance and academic advising at some secondary schools results in improper counseling or placement of students into the IB program because of college admissions.

*Finding Four: College admissions personnel have no preference regarding enrolment in the AP program or the IB Diploma Program.*

Admissions personnel at the most selective schools in the United States want prospective students to take the most rigorous academic program available. If a secondary school offers the IB Diploma program as the most rigorous academic program, then prospective students should be enrolled in that program. If a secondary school offers the AP program as the most rigorous academic program, then prospective students should be enrolled in that program. If a secondary school offers an internal-created program as the most rigorous academic program, then prospective students should be enrolled in that program from that school. Students simply must be enrolled in the most rigorous program. Admissions personnel interviewed stated that enrolment in the IB Diploma program does not, in any way, outweigh enrolment in multiple AP courses. What matters is enrolment in the most rigorous program available. If an applicant happens to attend a secondary school that offers neither the AP or IB programs, that applicant is not at a disadvantage as long as he takes the most rigorous academic program offered at his school.

Admissions personnel support enrolment in the AP and IB programs but only under the following conditions: if the courses in these programs are the most rigorous courses offered by the secondary school, if students can be successful in the courses within these programs and if secondary schools are committed to these programs. It was evident that college admissions personnel would like applicants to have experience with college-level work and even more clear that success in these courses is key to their support regarding admissions decisions.

### **Implications for Leadership, Practice and Policy**

There is significance in the research findings regarding leadership, practice and policy for this study in several areas: secondary schools and their approach to education and meeting the needs of their students, institutions of higher education and their approaches to admissions regarding the impact of the Advanced Placement and International Baccalaureate programs, and the message of the College Board and the International Baccalaureate Organization regarding the impact of the AP and IB on college admissions.

Regarding secondary schools, findings indicate that it is not essential to provide either the AP or IB programs, however, if these programs are offered, secondary schools need to offer them as the most rigorous academic programs. Significantly, secondary schools that do not offer either the AP or IB are not placing their students at a disadvantage regarding admission to the most selective colleges or universities. School budgets are tight and external curricular programs like the AP and IB are costly. If participation in these programs is not a necessity in terms of college admissions, schools will not feel the pressure to offer these programs.

The data from this study also have implications for institutions of higher education. Admissions personnel at selective colleges and universities, through the interviews conducted in this study, do not prefer either the AP or IB programs. In fact, these admissions personnel state that students who attend secondary schools that do not offer these programs are at no disadvantage in the application process. Therefore, the results of this study are important for the College Board and IBO. Both programs advertise themselves as the route to college admissions and the results of this study

show that this is not the case. The findings from this study indicate that secondary schools that do not offer these programs are on a level playing field with schools that do, regarding selective college admissions.

### **Strengths of Study**

One strength of this study is the mixed methods approach, which incorporated interviews with admissions personnel from selective colleges and universities in the U.S. and a quantitative tracer study of two international schools. This strategy allowed for the use of the quantitative data to assist in explaining and interpreting the qualitative results (Creswell, 2003). Mixed-method designs can help expand understanding of the topics being explored beyond those gained from using a single research method (Creswell, 2003).

Another strength comes from the sampling of colleges and universities within the qualitative interviews along with the number of colleges and universities selected. A purposive sampling of colleges and universities was selected for this study. With purposive sampling, a sample is drawn based on particular purposes or judgments (Creswell, 2003). Since the purpose of this study was to identify the influence of student enrolment in the AP or IB programs on college admissions decisions at selective U.S. colleges and universities, the sample includes colleges or universities that are selective. The process for determining their college and university selectivity was based upon admissions percentages provided by the College Board, specifically, the percent of applicants admitted. The participation of 30 colleges and universities further added to the strength of the study by providing a robust number of interviews.

The use of tracer studies to complement the interviews further strengthens the study. Tracer studies are also short and uncomplicated, and can easily be completed by respondents (Pang, 1978). Also, the data collected by tracer studies can be easily analyzed and understood by non-statisticians (Pang, 1978).

The aim of data analysis is to reduce and synthesize information – to make sense of it – and to allow inferences about populations (Creswell, 2003). Creswell suggests that when considering alternative methods for data analysis or interpretation, the evaluator needs to determine what methods of data analysis and interpretation are appropriate for the questions the researcher is trying to answer, the information that the researcher plans to collect, and the methods the researcher will use to collect information. A researcher also needs to determine what methods of data analysis and interpretation are most likely to be understood and to be credible to the audiences who will receive reports (Creswell, 2003). These methods are appropriate for the questions I am trying to answer and are most likely to be understood and to be credible.

### **Limitations of Study**

First, only thirty interviews were conducted. There are over 100 colleges and universities in the United States with admission percentages between 9-63%. Therefore, the sample number represents less than 30% of possible colleges and universities which fit the selectivity categories of this study (from 8-62%).

Second, only two tracer studies were conducted. This sample size provided only a small insight into secondary school data.

Third, the interview respondents are limited to admissions personnel at US colleges and universities and validity was limited to the honesty of the participants.

### **Recommendations for Future Research**

It is the suggestion of the researcher that future research focus on admission percentages for selective colleges and universities regarding secondary schools that offer the IB or AP programs or secondary schools that offer both programs. This research would take this study one step further in terms of how selective colleges and universities in the United States view the AP and IB programs.

Another suggestion would be to further compare the two programs (AP & IB) regarding student success at institutions of higher education, college or university graduation rates for former AP or IB students, program costs per student and admission percentages for each program or secondary school program costs for each program.

### **Conclusion**

The purpose of this study was to research the connection between secondary school enrolment in the AP and IB programs and admission to selective colleges and universities in the United States.

Results of the study indicate that there is a strong correlation between enrolment in these programs and undergraduate college admission decisions (high correlations were found in both tracer studies resulting in  $r = -.77$  and  $r = -.75$ ). However, these correlations are influenced by specific secondary school leader commitments to these programs. It is not essential for a secondary school student to be enrolled in these programs in order to gain admission to the most selective colleges and universities in

the United States since AP and IB enrolment explains roughly 58% of the variance in admissions. Other important factors explain 42% of the variance. These factors were not identified in this study.

These results have significant implications for both secondary schools, institutions of higher education and the IBO and College Board. The data from the two tracer studies and the interviews with admissions personnel indicate that participation in these programs enhances admissions chances, but admission is possible without such participation.

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## Appendix A

### Informed Consent for Interview Participants

#### **Informed Consent for Interview Participants**

Department of Educational Policy and Administration  
University of Minnesota  
Minneapolis, Minnesota

*College Admissions Officials views of admissions criteria and the impact of student enrolment in AP or IB programs on admissions*

Dear \_\_\_\_\_

You are invited to be in a research study involving admissions personnel at selective colleges or universities in the United States.

#### Purpose of the Study and Background Information:

The purpose of this study is to examine the impact of student enrolment in the AP or IB programs on college admissions decisions at selective U.S. colleges and universities. The central aim is to determine how high school student enrolment in the IB or AP influences admission to selective institutions of higher education in the US?

#### Procedures:

The initial research for this study consists of interviews with admissions personnel on the topic of admissions criteria, in particular, how student enrolment in the AP or IB program influences college admission. If you agree to participate in this study, you will be asked to answer a series of pre-determined, mostly open-ended questions lasting between 20-30 minutes. For the purpose of accurate data collection, the conversation will be recorded and transcribed. The secondary element of data collection will be a comparison of college matriculation lists from an IB school and an AP school.

#### Risks and Benefits of Being in the Study:

There are no risks anticipated in being in this study. The benefits to participation are a contribution to the understanding of how college admissions decisions are influenced by AP or IB enrolment.

#### Compensation:

There is no compensation for participating in this study.

**Confidentiality:**

Participant anonymity will be assured at all times and names will not be registered on the interview form. The records of this study will be kept private. In the event of any publication of these findings, we will not include any information that will make it possible to identify an individual. Research records will be stored securely and only researchers will have access to the records. The tapes made of the conversation will be erased once the data is transcribed.

**Voluntary Nature of this Study:**

Participation in this study is voluntary. If you decide to participate, you are free to not answer any question or to withdraw at any time.

**Contacts and Questions:**

Joe Chodl, currently the Dean of Students at The American School in London and a Doctoral Candidate at the University of Minnesota, Twin Cities in the Department of Educational Policy Administration, is the researcher conducting this study. You may ask any questions you have now. If you have questions later, you are encouraged to contact the researcher in London at [chodl002@umn.edu](mailto:chodl002@umn.edu).

**The University of Minnesota Institutional Review Board:**

The Institutional Review Board (IRB) at the University of Minnesota requires that all study participants provide informed consent before participating in any type of research. Please review the following information and sign on the bottom to give your consent to participate in this research. Thank you.

Signature\_\_\_\_\_ Date\_\_\_\_\_

## **Appendix B**

### Informed Consent for Data Collection

#### **Informed Consent for Data Collection**

Department of Educational Policy and Administration  
University of Minnesota  
Minneapolis, Minnesota

*College Admissions Officials views of admissions criteria and the impact of student enrolment in AP or IB programs on admissions*

Dear Dean of Students \_\_\_\_\_

You are invited to participate in a research study regarding how AP or IB enrolment influences the college admissions process by providing IB/AP enrolment and college matriculation information from your school for the academic year 2008/09.

The Institutional Review Board (IRB) at the University of Minnesota requires that all study participants provide informed consent before participating in any type of research. Please review the following information and sign on the bottom to give your consent to participate in this research. Thank you.

#### Purpose of the Study and Background Information:

The purpose of this study is to examine the impact of student enrolment in the AP or IB programs on college admissions decisions at selective U.S. colleges and universities. The central aim is to determine how high school student enrolment in the IB or AP influences admission to selective institutions of higher education in the US?

#### Procedures:

The initial research for this study consists of interviews with admissions personnel on the topic of admissions criteria, in particular, how student enrolment in the AP or IB program influences college admission. If you agree to participate in this study, you will be asked to answer a series of pre-determined, mostly open-ended questions lasting between 20-30 minutes. For the purpose of accurate data collection, the conversation will be recorded and transcribed. The secondary element of data collection will be a comparison of college matriculation lists from an IB school and an AP school.

#### Risks and Benefits of Being in the Study:

There are no risks anticipated in being in this study. The benefits to participation are a contribution to the understanding of how college admissions decisions are influenced by AP or IB enrolment.

**Compensation:**

There is no compensation for participating in this study.

**Confidentiality:**

The records of this study will be kept private. In the event of any publication of these findings, we will not include any information that will make it possible to identify an individual. Research records will be stored securely and only researchers will have access to the records.

**Voluntary Nature of this Study:**

Participation in this study is voluntary. If you decide to participate, you are free to not answer any question or to withdraw at any time.

**Contacts and Questions:**

Joe Chodl, currently the Dean of Students at The American School in London and a Doctoral Candidate at the University of Minnesota, Twin Cities in the Department of Educational Policy Administration, is the researcher conducting this study. You may ask any questions you have now. If you have questions later, you are encouraged to contact the researcher in London at [chodl002@umn.edu](mailto:chodl002@umn.edu).

Signature\_\_\_\_\_ Date\_\_\_\_\_

Table 5

*Colleges and Universities Admitting 1-24% of Applicants*

College or University	Admit Rate Percent
Harvard University	9%
Yale University	10%
Stanford	10%
Massachusetts Institute of Technology	12%
Brown University	15%
Washington University	19%
Georgetown University	21%
Pitzer College	22%
Rice University	23%
Middlebury College	24%

*Note.* College Board. (2008). *AP Central*. Retrieved from

URL.

Table 6

*Colleges and Universities Admitting 25-29% of Applicants*

College or University	Admit Rate Percent
Vanderbilt University	25%
Vassar College	25%
Boston College	26%
Johns Hopkins University	27%
Haverford College	27%
Emory University	27%
Tufts University	28%
Wesleyan University	28%
Hamilton College	28%
Lehigh University	28%

*Note.* College Board. (2008). *AP Central*. Retrieved

from URL.

Table 7

*Colleges and Universities Admitting 30-64% of Applicants*

College or University	Admit Rate Percent
New York University	37%
George Washington University	37%
Union College	39%
Skidmore College	44%
Wheaton College	44%
Sarah Lawrence College	45%
Boston University	57%
Syracuse University	60%
Penn State University	62%
Loyola University at New Orleans	63%

*Note.* College Board. (2008). *AP Central*. Retrieved from URL.