

## DOCUMENT RESUME

ED 435 316

HE 032 535

TITLE International Baccalaureate Diploma Program. Higher Education Update.

INSTITUTION California State Postsecondary Education Commission, Sacramento.

REPORT NO CPEC-UP/99-5

PUB DATE 1999-10-00

NOTE 7p.

PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS \*Academic Standards; Access to Education; College Bound Students; \*College Preparation; Educational Trends; Excellence in Education; High Schools; \*International Education; Outcomes of Education; Program Development; Public Policy; \*Secondary School Curriculum; State Surveys; Student Mobility; Trend Analysis

IDENTIFIERS \*California; \*International Baccalaureate

## ABSTRACT

The International Baccalaureate Diploma Program has begun to attract attention as an alternative approach to enhancing the academic preparation of college-bound high school students. The rigorous, comprehensive, two-year curriculum offers eleventh- and twelfth-grade students the opportunity to take college-level coursework and exams while also fulfilling requirements of various international educational systems. The liberal arts program emphasizes theory, application, and service. Schools offering the program are part of an international organization that aims to meet the educational needs of geographically mobile students. Over 800 schools in 100 countries are authorized to offer the program; about 37 percent are in the United States. Since 1997 California has had a 17 percent increase in schools offering the program. Students must be highly motivated and have strong academic skills to participate. The curriculum is divided into higher-level and standard-level courses in six core academic areas: the student's primary language and literature; a foreign language; individuals and societies; experimental sciences; mathematics; and arts and electives. Standardized exams are criterion-referenced. Participating schools face significant costs and require commitments of time and resources from families. However, many feel the outcomes justify the costs. The report advocates expansion of the programs in California to target underserved communities. (MSE)

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**Warren H. Fox**  
*Executive Director*

1303 J Street, Suite 500  
Sacramento, California 95814-2938  
Telephone (916)445-7933 (Voice)  
FAX Number (916)327-4417

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## *International Baccalaureate Diploma Program*

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HIGH SCHOOL HONORS PROGRAMS like the Advanced Placement Program and the International Baccalaureate Diploma Program can be an important avenue for many students to enhance their preparation for college. These programs provide opportunities for students to engage in challenging coursework that enables them to develop the necessary skills for academic endeavors beyond high school. In its 1995 report, *The Challenge of the Century*, the Commission recognized that these programs help high school students make better use of their time by helping them earn college credit for qualifying scores on examinations, which reduces time to degree, and by helping them acquire the skills and competencies expected of freshmen entering postsecondary education. The Commission has encouraged postsecondary institutions to "provide as much credit as possible for qualifying scores on such examinations."

While the dominant high school honors program in the United States has long been the Advanced Placement Program, the International Baccalaureate Diploma Program has begun to attract attention as an alternative approach to enhancing the academic preparation of college-bound high school students. The rigorous, comprehensive two-year curriculum offers students in the eleventh and twelfth grades the opportunity to take college-level coursework and exams while also fulfilling requirements of various international education systems. This update provides a brief overview of the features and effectiveness of the International Baccalaureate Diploma Program.

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### **Background**

The International Baccalaureate (IB) Diploma Program consists of a comprehensive liberal arts curriculum that emphasizes theory, application, and service. Schools offering an IB program are part of an international organization headquartered in Geneva, Switzerland. Established in the 1960s, the International Baccalaureate Organization (IBO) grew out of efforts to meet the needs of geographically mobile students who found educational differences across and between nations as they completed their secondary education and prepared for college. Through collaborative efforts with several countries, the IBO established an internationally standardized curriculum and diploma. Recognizing that the rigorous nature of the curriculum was an effective means for preparing students for academic success in college, American educators brought the IB program to the United States in 1974.

According to the International Baccalaureate Organization, there are more than 800 schools in nearly 100 countries that are authorized to offer an International Baccalaureate program. Approximately 37 percent of these schools are in the United States. Currently, California has 33 public and two private schools that have been authorized by the IBO to offer the IB curriculum and administer the examinations. Five additional schools are in the

process of seeking approval to become an authorized IB school. As schools continue to look for ways to strengthen their curriculum and respond to calls for greater accountability, the number of schools offering IB programs may increase. Since 1997, California has experienced a 17 percent increase in the number of schools offering the IB Diploma program. One of California's largest IB schools is Mira Loma High School in Sacramento, where approximately 11 percent of enrolled students take IB courses. Recognizing the importance of providing younger students with a solid academic foundation before high school, the IBO has created new programs for earlier grades. A Middle Years Program is available for sixth through tenth grade students and a primary years program has been added for children in the elementary grades.

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### Program characteristics

Both the International Baccalaureate Diploma Program and the more traditional Advanced Placement (AP) Program provide students with the opportunity to enroll in college-level courses and take standardized examinations for those courses. However, the International Baccalaureate Diploma program differs from the Advanced Placement program in that it is a *whole* curriculum rather than a menu of courses and examinations in various subject areas. There is also a definite international "flavor" to the program. The comprehensive two-year curriculum embodies a philosophy that centers on developing critical thinking, global perspectives, intercultural understanding, and responsible citizenship.

Students need to be highly motivated and have strong academic skills in order to be successful in the program. Some schools operate highly selective IB programs with admission based on teacher recommendations, test scores, or GPA, while other schools are less selective but emphasize the need for students to have strong study habits, an aptitude for thinking critically and creatively, and a willingness to work hard in order to complete program requirements. Most schools require students to take honors classes or pre-IB coursework in grades nine and ten prior to beginning an IB program.

The IB curriculum is divided into Higher Level (HL) and Standard or Subsidiary Level (SL) courses in six core academic areas. The prescribed curriculum and course content is established by IBO and is the same for all IB schools. Higher Level courses consist of 240 teaching hours and are undertaken for a period of two years while

Standard Level courses occupy 150 teaching hours and are completed over a one-year period. Students choose a combination of Higher Level and Standard Level courses based on individual strengths and interests, but must take at least three but not more than four courses at the Higher Level. Students sit for examinations at the conclusion of the one-year or two-year course period. Diploma candidates must also complete a theory course, undertake a capstone research project, and fulfill service activities to satisfy program requirements. Students who complete all of the IB program requirements and earn passing scores on all examinations receive an IB Diploma certifying that they have attained in-depth mastery of all six subject areas. In most schools, this diploma is awarded in addition to the regular high school diploma. Although students are permitted to take IB courses/exams on an individual basis, they are encouraged to follow the whole curriculum as diploma candidates. Students who do not complete all of the diploma program requirements are awarded certificates for the examinations completed.

The six subject areas are balanced between the sciences and the humanities and consist of specific courses in the following subject areas:

- ◆ Language A (the student's primary language and its literature)
- ◆ Language B (Foreign Language)
- ◆ Individuals and Societies - including social sciences, information technology and business
- ◆ Experimental Sciences - including biology and advanced sciences
- ◆ Mathematics - including advanced mathematics courses
- ◆ Arts and Electives - which might include art/design, music, theater arts, etc.

The standardized exams are criterion-referenced and graded on a seven-point scale. Since student performance is measured against defined outcomes, achievement levels tend to be consistent from one examination session to the next. An international panel of subject-matter experts grades the exams and the classroom teacher also provides an assessment. The IBO reports that approximately 79 percent of students achieve a passing score of four or better on the exams. As with Advanced Placement courses, many colleges give credit or "advanced standing" to students who attain qualifying scores on exams given in these courses, and because of the grading

scales used, qualifying scores often enhance a student's grade point average.

In addition to completing coursework and passing examinations in each of the six core subject areas, diploma candidates must also take an epistemology course aimed at developing critical thinking skills and an awareness of differences in human cultural development. The *Theory of Knowledge (TOK)* is a fundamental part of the IB Diploma Program and is intended to provide students with an opportunity to develop a "coherent approach to learning that transcends subjects and encourages appreciation of other cultural perspectives." Diploma students must also undertake an independent research project and write an *extended essay* of approximately 4,000 words. Finally, diploma students must participate in 150 hours of approved creative, athletic, and service learning activities known as *creativity, action, service - or CAS*. Service activities may involve volunteer work on behalf of a local community, school, the environment, or the international community. While specific CAS requirements tend to vary from school to school, these activities provide students with the opportunity to use and apply the knowledge and skills gained in coursework and develop well-balanced interests.

The diploma program requires students to be focused and "on task" throughout their tenure in high school. Potential IB students must carefully plan their four years in high school in order to fulfill state, district and IB program requirements, and they are often advised to complete non-IB requirements, such as Physical Education and Health Sciences, before their junior year.

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### **Program commitment**

Schools must be authorized by the International Baccalaureate Organization to offer the International Baccalaureate curriculum and administer the examinations. The approval process takes about two years and can cost from \$20,000 to \$100,000 for training, material, and equipment. The start-up process includes a formal application and consultation with a regional IBO representative, completion of an in-depth self-study, an on-site inspection visit, and the submission of written documentation to IBO headquarters in Switzerland. Schools are re-evaluated every five years in order to maintain their authorization to offer the IB curriculum. In order to receive authorization, schools must be prepared to offer an ad-

equated range of courses in the core subject areas, demonstrate adequate fiscal and human resources to support the program, and provide evidence that they will be able to sustain an adequate enrollment in the program. Although the IBO does not require schools to offer pre-IB courses, most schools find it necessary to prepare students for the IB curriculum by offering pre-IB honors level courses to students in grades nine and ten. Teachers must participate in specialized and ongoing training in order to teach in the IB program. The integrated nature of the curriculum requires well-trained teachers who collaborate with each other and district and site administrators who are committed to program ideals.

Schools participating in the International Baccalaureate program face significant costs. Mira Loma High School expends approximately \$50,000 annually to maintain its IB program, including annual affiliation and subscription fees of more than \$9,000. Since the quality of the program depends heavily on well-trained teachers, professional development costs are an important part of an IB program budget. California now provides some funding to cover professional development costs for those who teach in IB programs. Chapter 794, Statutes of 1998 (AB 2363, Honda) appropriated \$1.5 million to allocate up to \$25,000 to school districts to cover the ongoing costs of professional development required by the program and provided for start-up grants of up to \$15,000 for schools beginning the authorization process. Schools also pay per capita fees based on the number of students enrolled in the program, registration fees based on the number of exams given each year, and subject fees associated with courses and the extended essays.

The IB program also requires a significant commitment of time and resources from participating families. Some costs such as material fees, per capita and examination fees may be passed on to students and their parents. These costs vary considerably by school and by the number of Higher Level and Subsidiary Level examinations taken. Diploma students at Mira Loma High School may pay a few hundred dollars in examination fees over the course of the two-year program. On the other hand, students who attend San Jose High Academy, another large IB school located in San Jose, California, pay nothing. Although some schools offer financial assistance to low-income families who have students in the program, fee waivers do not appear to be as widely available as they are in the AP Program.

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## Program benefits

Despite the significant costs and requirements, many students and schools believe the benefits of participating in an IB program are worth the costs. Many students enter college with as much as one or two semesters of college credit according to some IB program administrators. The University of California grants eight quarter units for each IB Higher Level examination on which a student scores a five or better. The University does not grant credit for Standard Level course examinations. Some campuses may consider Higher Level examinations to be equivalent to freshman level courses and may allow them to be applied toward satisfying general education or breadth requirements. Units granted by the University for IB exams are not counted toward the maximum number of credits required for formal declaration of an undergraduate major or the maximum number of units a student may accumulate prior to graduation from the university. Similarly, California State University campuses often grant credit for AP and IB coursework, however policies concerning the award of college credit for IB coursework varies from campus to campus.

As college entrance requirements become tighter and job markets demand more highly qualified workers, many students are feeling the need to be more competitive in order to be admitted to the "right" college or university. The IBO maintains that IB diploma holders are more competitive applicants and often gain admission to selective universities throughout the world. A recent Los Angeles Times article reported that Sunny Hills High School in Fullerton claimed a 15 percent increase in the number of students getting accepted at Ivy League schools since instituting the IB program at the school.

Although empirical data about the benefits of participating in an IB program are sketchy, there is some evidence indicating that a rigorous high school curriculum helps prepare students for success in college. A recent study conducted by Clifford Adelman, senior research analyst with the U.S. Department of Education, revealed a strong and positive correlation between the academic rigor of a high school curriculum and the probability that one will attain a bachelor's degree. In his report, "Answers in the Tool Box: Academic Intensity, Attendance Patterns and Bachelor Degree Attainment," Dr. Adelman suggests that a rigorous high school curriculum may not only enhance the ability of a student to be admitted to college, but may also increase the likelihood that the student will finish his or her

college education. By increasing the rigor of the high school curriculum, honors programs like the Advanced Placement Program and the International Baccalaureate Program may enhance both the short term and long term success of students.

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## Availability and access

IB programs serve a relatively small proportion of school-aged children. According to the California Department of Education, only about four percent of the State's comprehensive public high schools offered an IB program in 1998. According to the IBO, there were 1,670 California juniors and seniors who took one or more IB exams in 1997. Of California's 296,281 high school graduates that same year, 251 received an IB diploma in addition to their regular high school diploma. Even within a school, the number of students who participate in the program can be small. In contrast, the Advanced Placement Program is more widely available in California's high schools. The College Board reports that 82 percent of California's public high schools participated in the AP Program in 1998. While the distribution of AP classes varies from school to school, AP classes are accessible to more students than is the IB curriculum. There were 95,343 California high school students who took one or more AP exams in 1997, and nearly 105,000 students were enrolled in AP courses in 1998.

The costs associated with the IB Diploma program effectively prohibit many schools and families, especially those in low-income areas, from participating. Many IB schools are located in more affluent communities and have access to resources that allow them to maintain a quality program. Only about five IB schools are in areas where 50 percent or more of their student population qualifies for free or reduced priced meals. The limited availability is further exacerbated by the fact that many students have not been exposed to educational experiences preceding high school that would give them the academic foundation necessary for successful participation in the IB program.

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## Conclusion

The International Baccalaureate Diploma Program is a unique and rigorous college-preparatory curriculum that is best suited for students with above average academic skills and study habits. While there are clear benefits to the high standards and rigorous curriculum found in AP

and IB courses, the selective availability of the IB program means that it has a relatively small impact on improving student achievement or enhancing college-going rates of underrepresented groups. Moreover, the inequitable distribution of high quality learning opportunities for students in early grades and the lack of qualified teachers in many of our schools means that many students do not have the opportunity to develop the strong academic skills necessary to succeed in highly rigorous programs like IB and AP, even if they were more widely available. As educators and policy makers look for ways to set higher standards, raise student achievement, and strengthen school accountability, honors programs like IB and AP may become more popular in California schools. However, expansion of these programs should be targeted at underserved communities. Increasing college-going rates of underrepresented groups, ensuring that economically disadvantaged students have access to our postsecond-

ary institutions, and increasing baccalaureate completion rates will require that we make high quality academic learning opportunities more widely available and equitably distributed at all grade levels in all communities. Expanding these programs without also ensuring that we strengthen curriculum and teaching in all schools may widen the student achievement gap.

The International Baccalaureate Diploma Program is a program of opportunities. It provides students with the opportunity to learn and hone academic skills, educators with the opportunity to guide young minds and teach a challenging curriculum, and policy makers with the opportunity to ensure that rigorous learning opportunities are more equitably distributed so that more high school students are able to make better use of their time and are adequately prepared to succeed in college.



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