

Foreign Language Education, Academic Performance, and Socioeconomic Status: A Study of California Schools

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Abstract: *This study examines various features of foreign language program offerings at 220 public high schools in California. Foreign language program features were examined in relation to the school's Academic Performance Index (API), the school's socioeconomic status (percentage of students eligible for free or reduced-price lunch), and percentage of English language learners (ELLs). High API ranking high schools reported a larger percentage of students enrolled in foreign language classes, more foreign language teachers, fewer emergency-credentialed teachers, more feeder middle school foreign language programs, more study abroad and foreign exchange programs, and more technology use in foreign language teaching. However, these relationships were not found in low socioeconomic schools and schools with larger numbers of ELLs. Foreign language educators can use the findings to offer recommendations to school administrators, policymakers, and professional organizations about ways to improve the teaching of foreign languages in secondary schools regardless of students' socioeconomic status or the growing population of ELLs.*

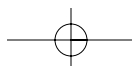
Key words: *California, credentialed teachers, English language learners, foreign language education, high school, socioeconomic status*

Languages: *Relevant to all languages*

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Introduction

California, like many other states, has instituted a performance accountability program to measure academic performance of students. The goal of this program is to identify schools that lag behind in demonstrating comparable improvement in academic achievement by economically disadvantaged students, students in the process of learning English as a second or additional language, and students who differ by race and ethnicity (California Department of Education, 1999a). In order to accomplish its mission, the Public Schools Accountability Act (PSAA) of 1999 requires that the California Department of Education (1999b) annually calculate the Academic Performance Index (API) for all public schools and publish school rankings based on these indices. The PSAA also requires the establishment of a minimum 5% annual API growth target for each school as well as an overall statewide API performance target for all schools. A school that meets either API growth or performance targets is eligible for rewards recognition and monetary incentives under the Governor's Performance Award Program. If a school fails to meet its annual growth target, it may be sanctioned and identified for an immediate intervention program that imposes a very specific set of improvement activities.

The API's purpose is to measure the academic performance and growth of schools; thus, the API is the centerpiece of the statewide accountability system in California public education. The API is a numeric index (or scale) that ranges from a low of 200 to a high of 1,000, and a school's score or placement on the API is an indicator of its performance level. The statewide API performance target for all schools is 800. The performance indicators included in the 2002–03 API, for example, are the results of the Standardized Testing and Reporting (STAR) program, which includes the Stanford Achievement Test (Stanford 9) and California Standards Tests (CST) in English–language arts, mathematics, and history–social science; and the California High School Exit Examination. The results of the CST in science and the California

Alternate Performance Assessment were added to the API in the 2003–04 reporting cycle. Each annual API reporting cycle includes two reports: a Base report, which appears after the first of the calendar year, and a Growth report, which appears in the fall. These reports are based on APIs calculated in exactly the same fashion with the same indicators, but using test results from two different years. In this study, the 2003 Growth API scores were used for analyses.

Foreign Language Education

The California Foreign Language Project, a statewide professional development project for foreign language educators that is funded by the state legislature, conducted this study to determine whether schools with different API rankings differ in their foreign language programs. In addition, the study explored the relationship of the school's socioeconomic status with its foreign language program and API scores.

Foreign language study and learning are not included in California's accountability system; consequently, not all secondary schools consider foreign language to be a core subject along with mathematics, science, and social studies. Thus, a sizeable number of school districts do not include foreign language as a graduation requirement. Even though a minimum of two years of foreign language classes is required for admission to the University of California and California State University systems, efforts to include foreign language into the high school core subject matter have been unsuccessful. Because of the growing reliance on academic accountability throughout the United States, foreign language educators must be concerned because of the exclusion of languages from the core content of what is tested on the accountability measures. A few of the many questions that arise are: How do high schools that have different API rankings differ in their foreign language offerings? Do schools differ in their API rankings and foreign language offerings if they have a large population of English language learners (ELLs)? Is a school's foreign language program affected if

there is a large enrollment of students who qualify for free or reduced-price lunch? Do teacher qualifications differ in high versus low academic performing schools?

In an effort to address these and related questions, we used API scores to examine enrollment trends in foreign language classes in schools with differing populations of poor students or ELLs. In addition, we examined the relationship between foreign language graduation requirements, study abroad options, the availability of technology in foreign language programs, the role played by feeder middle schools that offer foreign languages to students, and the schools' academic performance. We also profiled teachers to examine the number of teachers in a high school language department, whether teachers were credentialed in the languages they offered, teachers' self-reported proficiency levels, and teachers' professional development as seen through such things as travel abroad.

Method

Participating Schools

Study participants were 220 public high schools in California (25% of the total 886). Data were collected from 161 school districts in 51 counties in California.¹ In addition, questionnaires were returned by six schools that did not offer foreign language classes, and five high schools failed to provide their school names in the survey so their data were deleted from the analyses.

Data Collection

A survey questionnaire was prepared to seek information on: (a) total student enrollment in foreign language classes at each high school; (b) number of foreign language classes and levels offered; (c) study abroad and foreign exchange programs; (d) technology facilities and usage in foreign language teaching; (e) number of students who took the Golden State Spanish Examination, Advanced Placement tests, and SAT II Foreign Language Subject tests; and (f) questions regarding various aspects of foreign language offerings. Additionally, the survey

included questions to determine background information on its foreign language teaching staff: (a) How many teachers held a foreign language credential? (b) How many years had they been teaching? (c) Did teachers travel to the country of the language they taught? (d) Were they native speakers of the languages they taught? and (e) How proficient were the teachers in the language they taught?

Each high school's Academic Performance Index (API) scores were collected for the 2002–03 school year through the California Department of Education (2003a) Web site (<http://api.cde.ca.gov/reports.asp>). Additionally, the percentage of students in the free or reduced-price lunch program as well as the percentage of students who were identified as English language learners (ELLs) at each school was collected from the same Web site.

Procedures

The questionnaire described above was created in two forms. The first was a traditional paper-and-pencil questionnaire. The second was an online questionnaire using the Zintelligence online survey system (since discontinued). The online version of the survey was introduced because the researchers deemed it more efficient. The online system tabulates the data at the time of collection and eliminates the time-consuming process of having to enter data collected by the traditional paper-and-pencil surveys. In addition, the online survey method allowed us to connect to the schools' demographic information (e.g., percentage of ELLs) and API scores by linking this survey to the California State Department of Education Web site.

A letter from the California Foreign Language Project housed at Stanford University was sent out twice with the paper version of the survey to all public high school foreign language department chairs in California. The first mailing was sent during the spring semester and a follow-up mailing was sent early in the fall semester if department chairs had not yet submitted a completed survey. Recipients of the letter were informed of the purpose of the study and

asked to complete the questionnaire. In order to collect as many responses as possible from schools, multifaceted data collection methods were used in this study. Foreign language department chairs were given an option to fill out the survey either online or by using the paper version. Information on how to access the online version of the questionnaire was included in the letter, and recipients were encouraged to complete the survey online. Three weeks after each letter was mailed, reminder postcards were sent to recipients who had not responded to either the paper version or the online questionnaire, and they were again encouraged to complete the survey. Phone calls were also made to department heads in schools requesting that they complete the questionnaire.

School officials in 84 schools (38% of respondents) responded online, and 136 individuals (62%) responded to the paper-and-pencil form of the questionnaire. More departmental chairs responded online (31%) than on paper (25%) following the spring mailing, while significantly more department heads responded on paper (37%) than online (7%) during the fall mailing. It appeared that department chairs with better technology facilities responded to the online survey immediately. On the other hand, chairpersons who reported less sophisticated technology at their school site took longer to respond to the survey request and more often responded using the paper survey.

Data Analysis

Data from the paper-and-pencil questionnaire was merged with information that was secured from the online survey. Each high school's API scores for 2002–2003, number of students eligible for free or reduced-price lunch, and number of ELLs (taken from the California State Department of Education Web site) were also added to the data provided by each of our 220 schools. Descriptive statistics were then computed on such variables as percentage of ELLs at a high school or the number of students studying different languages (e.g., Spanish, French) by level (e.g., Spanish 1, Advanced Placement [AP]

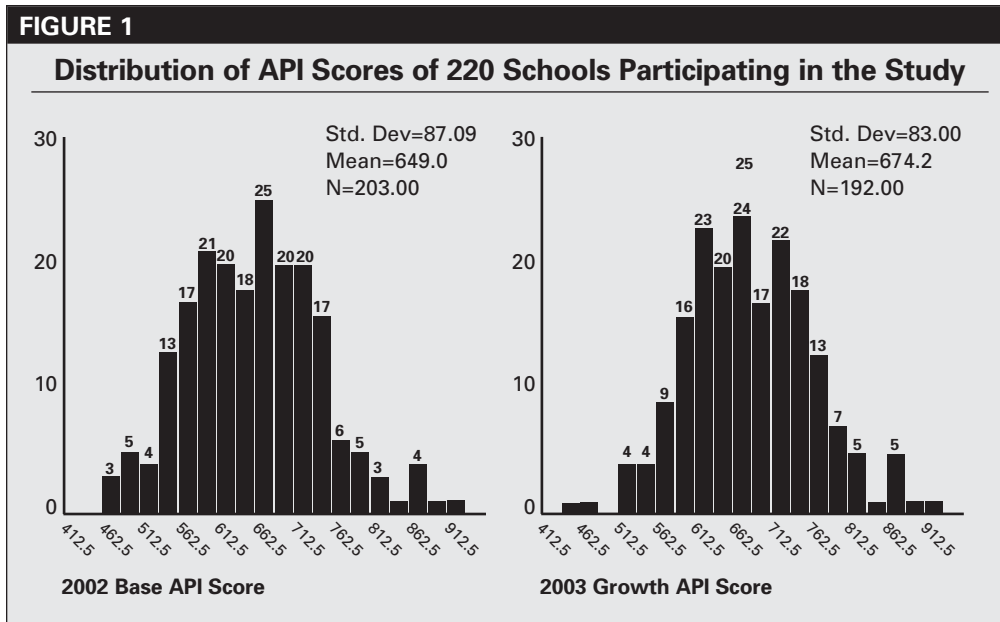
German). In addition, statistical analyses (*t* tests and correlations) were computed between variables to determine group differences or the extent of relationship (e.g., the number of students on free/reduced-price lunch and the total number of students enrolled in AP language classes).

Results

Academic Performance and Socioeconomic Status of Participating Schools

The mean API score of the participating schools in this study significantly increased by 25 points, from 649 as the 2002 Base score to 674 as the 2003 Growth score, $t(182) = 16.28, p < .0001$. The gain score of 25 points is consistent with the statewide data (i.e., California high schools, in general, posted a 24-point gain from their 2002 Base API). The median statewide API score was 668 in 2003 (Slater & Miller, 2003) and the median score for the schools in this study was 670. Figure 1 offers a visual inspection of both the 2002 Base and 2003 Growth API scores and shows that the schools that completed the survey for this study were randomly distributed and were representative of all secondary schools in California. This is critical because our sample consists of approximately 25% of secondary schools in California. The fact that our sample was randomly distributed on API scores lends credence to any generalizations based on our sample.

Information on the percentage of students who participated in the free or reduced-price lunch program and the percentage of ELLs at each school was collected to determine the socioeconomic status of the schools in this study and to assess the impact of these variables on the foreign language programs and schools' API scores. The mean percentage of students with free/reduced-price lunch was 32% and the mean percentage of ELLs was 14%. These two variables were significantly correlated to each other, $r = .60, p < .0001$; and also significantly correlated in the negative direction to the school's API scores: $r = -.71, p < .0001$ with free/reduced-price lunch, and $r = -.60, p < .0001$ with ELLs. Scatter plots



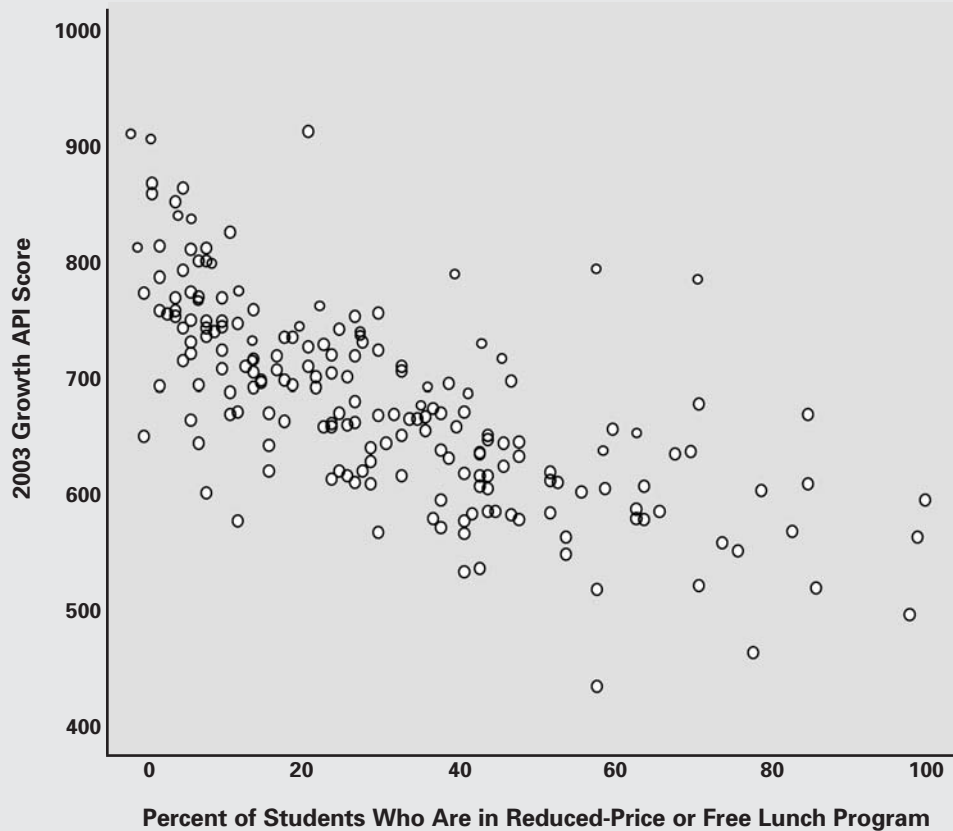
showing the percentage of students receiving free/reduced-price lunch (Figure 2) and percentage of ELLs (Figure 3) in a school and the school's API score show the negative relationship discussed here. While the percentage of ELLs had a significant positive relationship with the total number of students at school, $r = .33$, $p < .0001$; the percentage of students with free/reduced-price lunch was not correlated with the total number of students. Thus, the larger the school size, the larger the proportion of ELLs, but the size of the school bore no relationship to the school's poverty level as determined by students who qualified for free or reduced-price lunch. In addition, a school's total enrollment was not related to the API, meaning that large and small schools alike performed at the same approximate level in terms of their API scores.

Enrollment in Foreign Language Classes

Demographic information revealed that the mean percentage of students enrolled in foreign language classes was 44% of the total student body at each respective school, which corresponds to statewide enrollment data.² In addition, the mean number of students enrolled in foreign language programs per high school was 761, and ranged from 14 to

2,263. There was a significant positive correlation between the school's API score and the percentage of students enrolled in foreign language classes, $r = .43$, $p < .0001$. Figure 4 uses a scatter plot to show the positive relationship between percent of students in foreign language classes and API scores. Thus, the larger the percentage of students enrolled in foreign language classes, irrespective of language or level, the higher a school's API scores. This significant correlation was also true when we compared the actual number of students enrolled in foreign language classes and the school's API scores, $r = .20$, $p < .005$, even though its significance level was lower than the correlation with the percentage of students in foreign language programs. However, the total enrollment of the school (the total student body size) was not related to the percentage of students in foreign language classes.

The results also showed that fewer students on free or reduced-price lunch were likely to be enrolled in foreign language classes, $r = -.36$, $p < .0001$; and the same was true for ELLs, $r = -.19$, $p < .01$. Accordingly, the more students who received free or reduced-price lunch and the more ELLs at a school, the smaller the percentage of students taking foreign language classes. A stepwise regression was performed to see which factor was

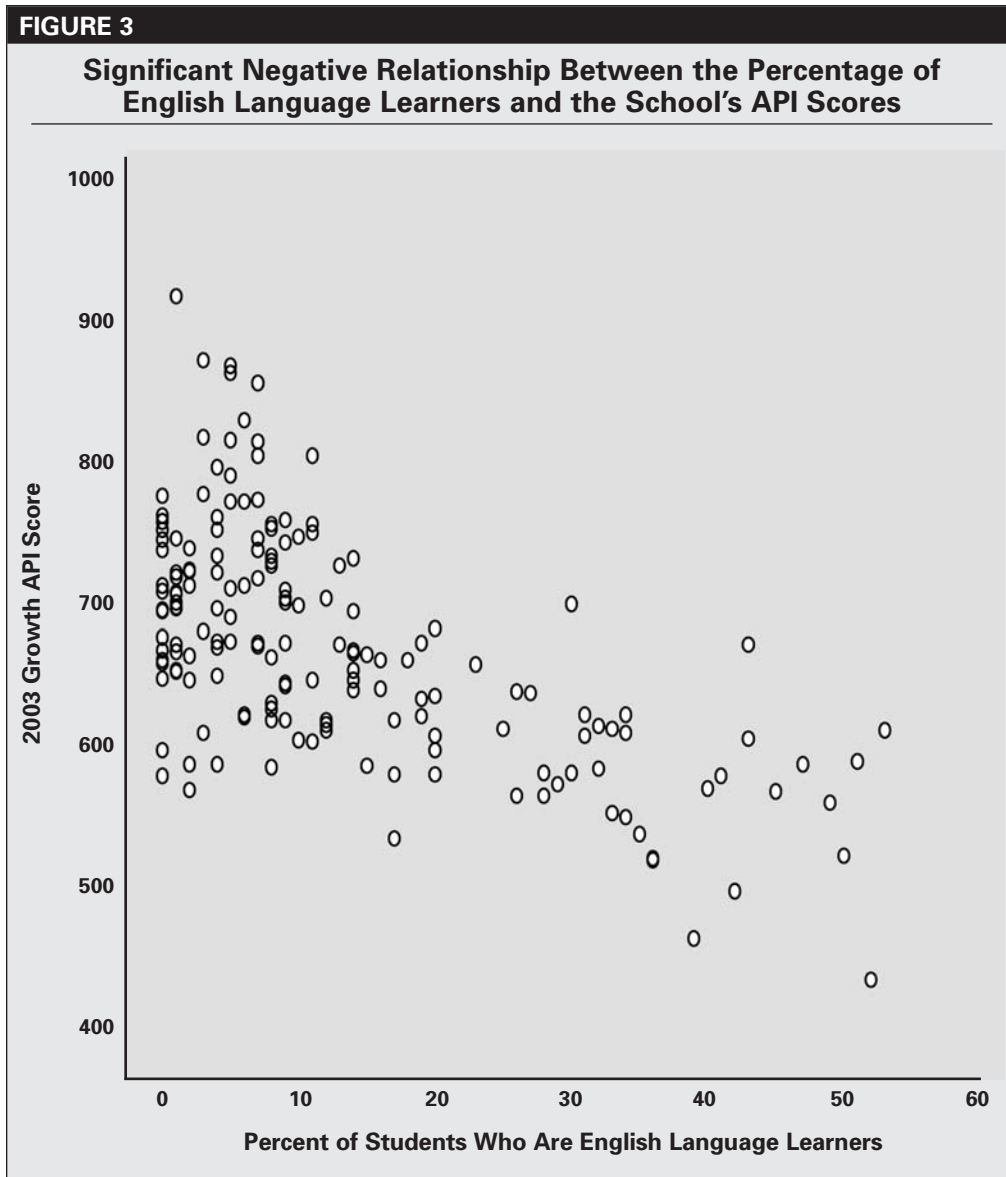
FIGURE 2**Significant Negative Relationship Between the Percentage of Students with Free/Reduced Price Lunch and the School's API Scores**

the strongest predictor of a school's API score. Results revealed that the percentage of students with free or reduced-price lunch was the strongest predictor ($t = -7.55$; $p < .0001$), followed by the percentage of students enrolled in foreign language classes ($t = 4.00$; $p < .0001$), and the percentage of ELLs at school ($t = -3.77$; $p < .0001$). It is important to note that the percentage of free or reduced-price lunch and the percentage of ELLs are both negatively related to a school's API score, whereas the greater the number of students enrolled in foreign language classes, the higher a school's API scores.

In our surveys, 161 schools (73% of respondents) reported that students had taken AP Spanish tests in the prior school year. In addition, department chairpersons in 152

schools (69% of respondents) reported that students took the Spanish Golden State Exam (range from 5 to 2,160 students per school) in the prior school year. On the other hand, only 64 schools (29% of respondents) reported that their students took the Scholastic Aptitude Test (SAT) II Spanish subject test. There was a significant correlation between the number of students taking AP Spanish tests and the SAT II Spanish subject test, $r = .53$, $p < .0001$. There was, however, no relationship between the number of students taking these tests and the school's API score.

An interesting finding is that there was a significant positive correlation between the number of students who took an AP Spanish test and the percentage of students who received free or reduced-price lunch,

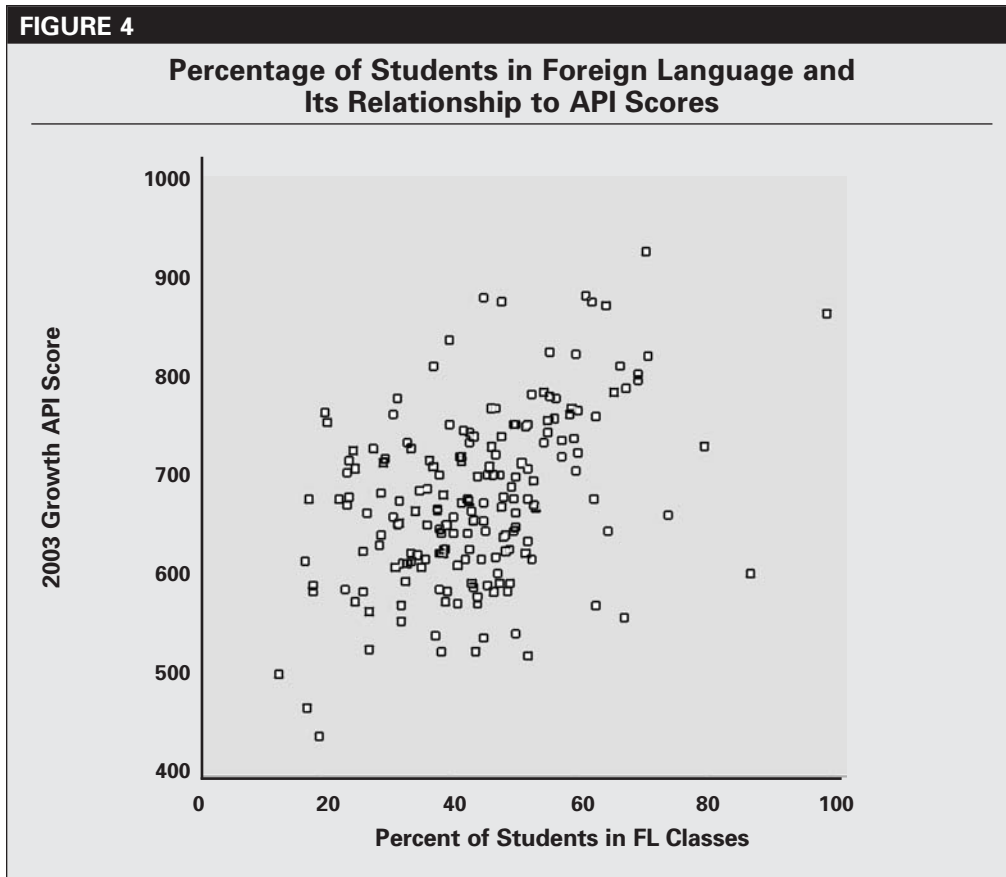


$r = .22, p < .01$; and the percentage of ELLs at the school, $r = .27, p < .001$. Thus, a school with more English learners or students from low-income families had a higher number of students who took an AP Spanish test.

Foreign Language Requirements for Graduation

The surveys showed that 105 schools (47% of respondents) had a local (either district- or school-level) graduation requirement of a foreign language. Respondents at 78 schools

reported that their schools or districts required students to take at least one year of foreign language study for graduation, and 23 schools required two years of foreign language study for graduation. Only one high school required three years of foreign language study for graduation. The majority of schools in our sample (53%) did not have a foreign language graduation requirement. Figure 5 shows the percentage of high schools that required a foreign language for graduation. There was, however, no relationship



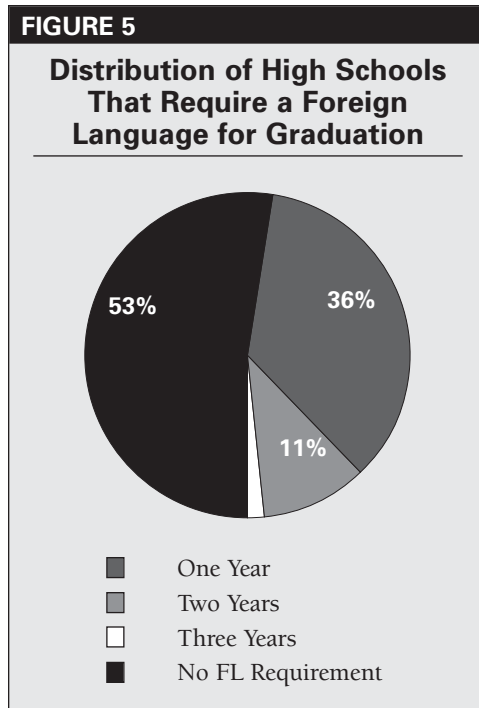
between a school or district's foreign language as graduation requirement and the school's API score. Actually, the mean API score was slightly higher, although not significant, for those schools with no foreign language graduation requirement ($M = 679$) than for schools with such a requirement ($M = 668$). No other variable was found to be related to the existence of a foreign language graduation requirement. In sum, many students took foreign language classes regardless of whether or not they were required for graduation.

Study Abroad/Foreign Exchange Programs

Of the schools responding, 92 (42%) reported that they sponsored study abroad programs and that foreign language teachers accompanied students on these trips. Of the 92 schools, 54 schools sponsored Spanish study abroad programs and 49 schools sponsored French programs. There were 13

schools sponsoring German travel programs, and 16 schools reported other study abroad language programs such as Japanese. Schools that sponsored study abroad programs reported significantly higher API scores ($M = 694$) than those that did not have such programs ($M = 658$), $t(88) = 3.07$, $p < .005$.

Respondents at 111 schools (50%) reported that they received students from other countries as part of foreign exchange programs, and 54 schools (25%) reported that they sent students to other countries during the school year as part of the exchange program. The exchange students at 95 schools came from French-speaking countries; 42 schools hosted students from Spanish-speaking countries; 26 schools hosted students from Germany; and a small number of schools hosted students from Japan. On the other hand, 21 schools sent their students to Germany as exchange students; 15 schools sent students to French-speaking



countries; and 14 schools sent students to Spanish-speaking countries. Schools that received foreign exchange students reported significantly higher API scores ($M = 684$) than those that did not have such programs ($M = 661$), $t(188) = 1.98$, $p < .05$. Schools that sent students to other countries reported significantly higher API scores ($M = 702$) than those that did not have such programs ($M = 662$), $t(186) = 3.00$, $p < .005$.

The percentage of students receiving free or reduced-price lunch and the percentage of ELLs played an important role in the existence of the study abroad and foreign exchange programs. Schools that supported study abroad had fewer students that qualified for free or reduced-price lunch ($M = 25\%$) and fewer ELLs ($M = 11\%$) than schools that did not support such programs ($M = 37\%$ for free/reduced-price lunch and $M = 16\%$ for ELLs). The mean percentage differences between schools supporting study abroad program and those not supporting such program were statistically significant, $t(209) = 3.61$, $p < .0001$ and $t(209) = 2.46$, $p < .05$, respectively. In addition, socioeconomic status and number of ELLs was significantly different

between schools that offered study abroad programs and those that did not. In similar fashion, schools that received foreign exchange students had significantly fewer students on free or reduced-price lunch ($M = 27\%$) and fewer ELLs ($M = 12\%$) than schools that did not receive foreign exchange students ($M = 37\%$ for free/reduced-price lunch, and $M = 16\%$ for ELLs), and the mean differences were also statistically significant, $t(209) = 3.22$, $p < .005$ and $t(209) = 2.23$, $p < .05$, respectively. However, it is interesting to note that whether or not schools sent students abroad as a part of a foreign exchange program did not make any difference in terms of the percentage of students on free or reduced-price lunch or the percentage of ELLs.

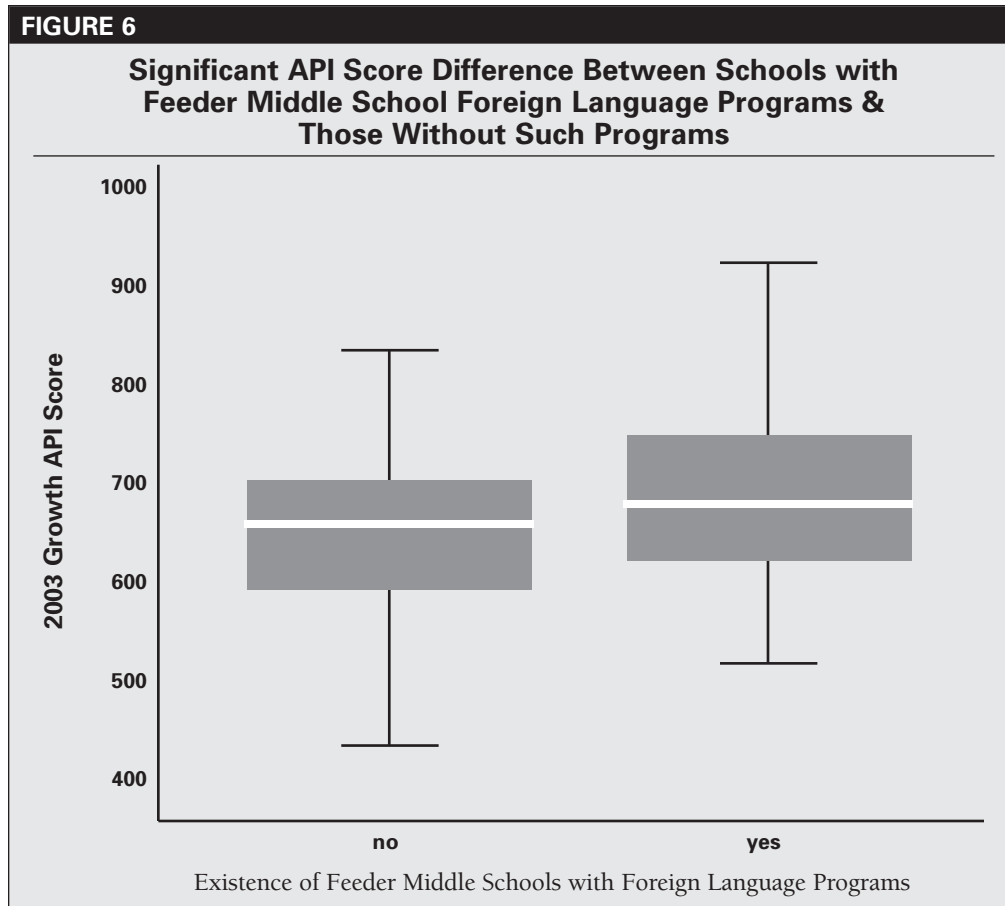
Technology Use in Foreign Language Teaching

Only 18 schools reported that they had a designated foreign language lab, and they recorded significantly higher API scores ($M = 749$) than schools that did not have a language lab ($M = 667$), $t(188) = 3.83$, $p < .0001$. However, 35 schools that reported they had other computer facilities dedicated to foreign language education did not show any difference in their API scores compared to schools that did not have such facilities.

Schools that had a foreign language lab showed many fewer students on free or reduced-price lunch ($M = 17\%$) than schools that did not have a lab ($M = 33\%$), and the mean percent difference was statistically significant, $t(209) = 2.85$, $p < .005$. On the other hand, the percentage of ELLs enrolled in a school was not related to whether or not a school had a language laboratory.

Feeder Middle School Foreign Language Programs

Respondents at 128 schools (58%) reported that they had feeder language programs in the middle schools in the same district. Spanish was offered at most of these feeder middle schools, and French, German, Filipino, Japanese, Latin, American Sign Language, or Chinese were also reported to be offered at



some of the feeder middle schools. Schools that had a feeder middle school foreign language program showed significantly higher 2003 Growth API scores ($M = 690$) than those with no feeder school foreign language programs ($M = 650$), $t(184) = 3.34$, $p < .001$. Figure 6 shows box plots for schools with and without feeder middle school foreign language programs. The horizontal lines between the grey shaded rectangular boxes indicate the mean score for each school type, and the vertical lines show the variance or the range between high and low API scoring schools. High schools with feeder middle school foreign language programs reported significantly more students enrolled in foreign language classes ($M = 880$) than high schools with no such programs ($M = 580$), $t(208) = 4.82$, $p < .0001$. Moreover, the overall proportion of students enrolled in foreign language classes out of the total student body

of the school was significantly higher at schools with feeder middle school foreign language programs ($M = 46\%$) than at schools without the complementary middle school element in foreign language ($M = 40\%$), $t(202) = 3.41$, $p < .001$.

In addition, high schools that had feeder middle school foreign language programs had significantly fewer students receiving free or reduced-price lunch ($M = 26\%$) than those without middle school foreign language programs ($M = 40\%$), $t(205) = -4.36$, $p < .0001$. The findings indicate that higher socioeconomic status schools had more foreign language programs in their feeder middle schools and in turn this influenced the number of students enrolled in high school foreign language programs. On the other hand, the percentage of ELLs in a school was not related to the existence of feeder middle school foreign language programs.

Foreign Language Teaching Staff

The mean number of full-time equivalent (FTE) foreign language teachers at each school was 5.2, ranging from 0 to 15. However, the mean number of all foreign language teaching staff members, including part-time teachers in the foreign language department at each school, was 6.2, ranging from 1 to 19. Out of all the teaching staff at each school site, whether full-time or part-time, the mean number of teachers with foreign language teaching credentials was 5.2, suggesting that at least one teacher who was teaching a foreign language was not credentialed to teach a foreign language.

There was a statistically significant relationship between the size of the foreign language teaching staff and the school's API score. Schools with higher numbers of FTE foreign language teachers recorded significantly higher API scores than those with lower numbers of FTE, $r = .23, p < .001$. In similar fashion, schools with higher numbers of foreign language teaching staff members had significantly higher API scores than those with lower numbers of foreign language teaching staff members, $r = .27, p < .0001$. Moreover, the more credentialed the teachers in foreign languages, the higher the school's API score, $r = .25, p < .001$. The percentage of students receiving free or reduced-price lunch had a significant negative relationship with the number of FTE foreign language teachers ($r = -.24, p < .0001$), the total number of foreign language teaching staff members ($r = -.28, p < .0001$), and the number of credentialed teachers ($r = -.28, p < .0001$).

Out of the 220 schools that responded to this study, 56 schools (25%) reported that they had at least one foreign language teacher who held an emergency credential. Twenty-one schools (10% of respondents) had at least two emergency-credentialed teachers, and five schools reported having three teachers with emergency credentials in the foreign language department. Analyses showed that the more emergency-credentialed teachers in a given school, the lower its API score. Although the result failed to reach

statistical significance at the $p < .05$ level, it was, however, important to note that schools with more teachers on an emergency credential had a higher percentage of students receiving free or reduced-price lunch ($r = .18, p < .05$) and had more ELLs ($r = .22, p < .005$) enrolled in the school.

Out of 212 schools that responded, 109 schools (51%) hired at least one or more new foreign language teachers in the current school year: 70 schools (33%) hired at least one new foreign language teacher; 28 schools (13%) hired two; and 11 schools (5%) hired three or more new foreign language teachers. Schools with a larger number of students enrolled in foreign language classes and a higher percentage of students in the foreign language program were more likely to have hired new foreign language teachers: $t(206) = 5.31, p < .0001$; and $t(201) = 3.97, p < .0001$, respectively. Of those responding, 126 schools (57%) reported that they had experienced difficulties in recruiting qualified foreign language teachers. The hiring difficulties reported by the respondents included the retirement of current teachers, few applicants with suitable credentials, a limited pool of teachers of French and Asian languages, and teachers leaving the profession within the first five years. Eighty schools (36% of respondents) reported that they provided professional development programs for foreign language teachers. These same schools also recorded a significantly higher API score ($M = 691$) than schools without a professional development component ($M = 666$), $t(181) = 2.04, p < .05$. The existence of a professional development program for foreign language teachers was also significantly related to the total number of foreign language teaching staff members, including full-time and part-time staff: $t(206) = 2.02, p < .05$. Schools with a higher number of students enrolled in foreign language classes and with more FTE foreign language teachers provided more professional development activities, but these relationships failed to reach statistical significance at the $p < .05$ level.

Teachers' Travel Abroad and Native Speakers of the Language

The foreign language department chairperson at each high school provided information about the school's foreign language teaching staff. Data on more than 1,200 teachers were collected in this study. The department leaders responding reported that 92% of their foreign language teachers had traveled abroad and 40% of their teachers were native speakers of the languages they taught. Nonnative language speaking teachers traveled abroad more than native speaker teachers. For example, among the 1,126 teachers who traveled abroad, 61% (684 teachers) were nonnative speakers of the languages they taught and 39% (442 teachers) were native speakers. In other words, more than 93% of the nonnative speaking teachers traveled abroad, while about 90% of the native speaking teachers went abroad.

The percentage of students receiving free or reduced-price lunch at school was negatively related to the teachers' patterns of traveling abroad. For example, 28% of students received free or reduced-price lunch at schools where teachers traveled abroad. Whereas at schools with few teachers traveling abroad, 37% of students received free or reduced-price lunch. This percentage difference was statistically significant, $t(1203) = -3.87, p < .0001$. The percentage of ELLs at a school was also negatively related to teachers' traveling abroad. Fifteen percent of students were ELLs at schools where more teachers reported traveling abroad. In contrast, 20% of the students were ELLs at schools where teachers reported that they did not travel abroad. This difference in percentage of ELLs was statistically significant, $t(1203) = -3.36, p < .001$.

Finally, API scores were higher at the schools where more teachers traveled abroad ($M = 685$) than in those schools where teachers reported little travel ($M = 652$), and this difference was statistically significant, $t(1086) = 3.22, p < .001$.

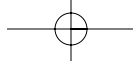
Data gathered on teachers revealed that those teachers who were native speakers of the languages they taught were more likely to teach at schools with more students (33%)

on a free or reduced-price lunch program than were nonnative speaking teachers (26% of students on a free/reduced lunch). Similarly, schools with larger enrollments of ELLs (18%) were more likely to have a larger pool of language teachers who were native speakers of the language they taught than schools with no or few native speaking teachers (13% of ELLs). These differences in percentage of students on a free/reduced lunch and that of ELLs were statistically significant, $t(1209) = 5.99, p < .0001$ and $t(1209) = 6.10, p < .0001$, respectively. Finally, API scores were significantly higher in schools with more nonnative speaking foreign language teachers than in schools with greater numbers of native speaking teachers (the mean API scores were 693 and 672 respectively), $t(1096) = -3.71, p < .0001$.

Teachers' Gender and Teaching Credentials

In replying to the survey, departmental chairs indicated that 72% of the foreign language teachers were female and that overall 87% of the teachers held a single clear credential in foreign languages. Respondents to the survey also reported that 89% of the female teachers at their school held a credential in foreign languages, whereas only 84% of the male teachers held an appropriate credential. The mean API score of the schools where female foreign language teachers taught was significantly higher ($M = 690$) than at schools where males taught ($M = 670$), $t(1108) = 3.36, p < .001$. On the other hand, there were significantly more students receiving free or reduced-price lunch at schools where male teachers taught (31% of students) than where females taught (26% of students), $t(1226) = 2.33, p < .05$.

There was no correlation between the foreign language teacher possessing a single clear credential in the language and a school's academic performance, number of students receiving free and reduced-price lunch, or number of ELLs. However, 53% of the teachers for whom there was information reported that they also held a credential in another subject area. This may mean that foreign lan-



guage teachers tend to obtain credentials in other subject matter areas to secure their full-time employment status. Interestingly, the mean API score of the schools where teachers possessed more than one credential was significantly lower ($M = 680$) than those schools where teachers held only a credential in a foreign language ($M = 692$), $t(1032) = -1.96$, $p < .05$.

Teachers' Experience Level and Language Proficiency Level

Overall, foreign language teachers in California are experienced. Information provided by departmental chairs indicated that the mean number of years of teaching for teachers in their department was 13.9 years ($SD = 10.5$ years), and the median was 12 years. A relationship was found between the number of years of teaching experience and a school's API score ($r = .08$, $p < .01$). Also, more experienced teachers were less likely to work at schools with larger percentages of students receiving free or reduced-price lunch ($r = -.07$, $p < .01$).

Sixty percent of the teachers responding self-reported a proficiency level in the language they taught at the Superior level based on the Proficiency Guidelines of the American Council on the Teaching of Foreign Languages (1998). Of teachers responding, 28% reported being at the Advanced level, and only a scant 11% were at the Intermediate level. There was no significant difference in the teachers' self-reported language proficiency level by gender, travel abroad experience, the school's academic performance, nor the number of years of teaching experience.

Discussion

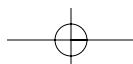
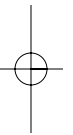
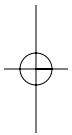
Enrollment in Foreign Language Classes

An important finding of this study is that there was a strong and statistically significant correlation between student enrollment in foreign language classes and a school's API scores. Educators have long known that high schools characterized by a large percentage of graduates going on to postsecondary

institutions of higher education score higher on a multitude of academic performance measures. Further, because many colleges require a foreign language for admission, students from these higher performing schools also show a higher rate of completing at least two years of foreign language. The findings of this study show that enrollment in foreign language classes was significantly lower at schools with large enrollments of students on free or reduced-price lunch and with larger numbers of ELLs. Importantly, a school's socioeconomic status as measured by the percentage of students who qualify for free or reduced-price lunch and the number of ELLs are contributing factors to the school's academic performance and the rate of foreign language enrollment. The question that follows from these findings is which factors contribute most in predicting schools' academic performance. The results of the stepwise regression analysis revealed that the strongest predictor of a school's academic performance was the socioeconomic status of students, followed by the foreign language enrollment, and the number of ELLs in a school.

An unexpected finding is that a significantly larger number of students took an AP Spanish test at those schools that also had a higher percentage of low-income students and more ELLs. Obviously, this means that AP foreign language courses, especially in Spanish, should be offered at schools with large numbers of poor and native Spanish speaking students. Surprisingly, it did not matter whether a school had a foreign language requirement for graduation when it came to a school's API performance. Accordingly, mandating foreign language as a graduation requirement does not automatically elevate student achievement.

The findings showed that schools that supported study abroad and foreign exchange programs had significantly higher API scores than schools without these language programs. The data also showed that schools in higher socioeconomic communities with fewer ELLs and fewer students on free or reduced-price lunch are able to provide more



opportunities for students to engage in study abroad programs, but not in exchange-type programs. Statistically, there was no difference in terms of the socioeconomic status of a school or the number of ELLs enrolled and whether the school sent students abroad on a foreign exchange program. Thus, the determining factor in whether a school supported an exchange program was not based on socioeconomic status of the school. Students who participated in exchange programs more often than not received funding from non-school related sources, such as the American Field Service (AFS) and German American Partnership (GAP) programs. Accordingly, students (regardless of their socioeconomic status or that of their school) can benefit from such organizations as the AFS or GAP, unlike study abroad programs that often depend on a students' family economic status.

This finding may be attributable, at least in California, to the small number of schools that send students abroad as part of a foreign exchange program. Most of the students that go abroad do so only if they receive a scholarship from an organization that supports foreign exchange programs (e.g., the GAP Foundation sponsors a German exchange program).

The finding that schools with language labs recorded higher academic performance can be understood in much the same way as in the case of the study abroad and foreign exchange programs. A well-equipped language lab is expensive to maintain, and schools in wealthier communities are more likely to be in a position to afford a language lab than are schools in more depressed economic areas. On the other hand, computer facilities dedicated to foreign language education are not related to a school's academic performance or its socioeconomic status. It is safe to assume that if a school were wired for foreign language, it would be wired for the core subject matter areas of math, science, social studies, and English language arts. Consequently, students would perform at higher levels on the accountability measures making up the API composite. Thus, the greater presence of technology would be

even more evident in schools in more affluent communities. However, computer facilities are common in most high schools. For example, today 78% of high schools in California are classified as digital high schools. If we know technology is present in a high school but we don't know how this technology is used in instruction, we can tell very little about how technology affects individual student and general school achievement in the academic indicators used by California to assess student learning.

Feeder Middle School Foreign Language Program

In this study, only a little more than half of the responding high schools had feeder middle schools with foreign language programs. An interesting and notable finding is that high schools that had a feeder middle school foreign language program maintained a larger number of students enrolled in high school foreign language classes and showed higher API scores. The K–12 Performance Guidelines, published by the American Council on the Teaching of Foreign Languages (1998), state that students who begin their foreign language study earlier attain a higher level of proficiency in the target language. In the past two decades there has been an increase in the number of elementary school foreign language programs, however, there have also been difficulties in the articulation of these programs between elementary and secondary schools, including middle schools (Rhodes & Branaman, 1999). Our survey data indicate that more students enroll in foreign language classes in high school and attain higher levels of proficiency if they are first introduced to a foreign language in middle school. Unfortunately, our survey could not provide us with any information regarding the degree of articulation between foreign language teachers in middle school and high school.

The school's socioeconomic status again played an important role in the existence of a feeder middle school foreign language program. Wealthier school districts apparently were more likely to provide foreign language

as an elective in the middle school. An important implication from this finding is that foreign language educators need to advocate with their local school districts, regardless of socioeconomic status, to make foreign language instruction available in the early grades, but certainly not later than middle school.

Foreign Language Teacher Quality

Our results show that schools with larger numbers of foreign language teaching staff members have higher overall API scores. A more important finding was that schools with more teachers on emergency teaching waivers showed lower API scores. Although our data do not include the number of teachers in other subject matter areas on emergency waivers, we can safely conclude that schools with foreign language teachers on emergency waivers likely have other noncredentialed teachers as well. Our data do show that schools with more teachers on emergency credentials also had significantly larger percentages of students on free or reduced-price lunch and more ELLs. Thus, schools in lower socioeconomic communities are in most need of highly qualified teachers in all of the subject matter areas, including foreign language.

Teachers traveled abroad significantly more at schools with higher API scores, higher socioeconomic status, and fewer ELLs. On the other hand, there were significantly more native-speaking second language teachers at the schools with lower API scores, lower socioeconomic status, and a higher percentage of ELL students. Academic performance as assessed by API scores was higher at schools where more female teachers were on staff; on the other hand, students' socioeconomic status was lower in schools with more male teachers. Another finding is that at schools with low socioeconomic status, a larger number of teachers held additional teaching credentials in other content areas in addition to foreign languages, which means that foreign language teachers at the poorest schools obtained multiple credentials to secure their full-time employment.

Conclusion

We found that a school's academic performance as measured by the API used in California was significantly correlated with the percentage of students enrolled in foreign language classes, size of teaching staff, credentialing status of teachers, support for study abroad and foreign exchange programs, a dedicated foreign language computer lab, professional development support, and feeder middle schools that provided foreign language instruction. These variables, however, were also significantly related to the socioeconomic status of a school as determined by the number of students on free or reduced-price lunch. This is important because a recent report issued by the Council for Basic Education (2004) entitled, *Academic Atrophy: The Conditions of the Liberal Arts in America's Public Schools*, indicates that principals in low socioeconomic schools reported a decrease in support for foreign language teachers to participate in professional development programs.

In regard to the role of foreign language education as it relates to closing the achievement gap between high-performing and low-performing students, Met (1991, 1998) found that foreign language learning fosters students' critical thinking, supports their cognitive development, and if they are ELLs it also improves native language reading and writing. However, students often only study a foreign language to meet high school graduation or university entrance eligibility requirements, rather than for the purpose of developing full proficiency in another language. Thus, if students enroll in foreign language classes only to fulfill requirements, they do not fully benefit from the full range of potential academic advantages that the study of languages can offer.

In low-performing schools, another problem exists. With the press for academic accountability in mathematics, science, and the language arts, foreign language study does not surface as an area of high priority. Thus, when principals must decide how to use scarce resources, they do not give the same priority to hiring credentialed language

teachers, professional development, and instructional facilities such as language labs as they do for the other core content areas. Therefore, students in these schools ultimately have fewer opportunities to profit from the academic benefits of learning another language. Although the findings presented in this study are based on a sample of schools in California, we believe that similar trends are taking place in schools in other states where the study of foreign languages is being squeezed by the need to improve test scores in math, science, and reading. This is shortsighted, because our findings indicate that schools with more English learners (e.g., native Spanish speakers) reported more students taking an AP test in Spanish. If native speakers of other languages are not encouraged to maintain their languages and are not offered classes to achieve high levels of proficiency, we squander a valuable language resource. Finally, the findings reported here speak directly to ACTFL's national campaign *2005: The Year of Languages* to raise public awareness about the importance of language learning at all schools regardless of socioeconomic status.

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Notes

1 California has a total of 58 counties.

2 The National Center for Education Statistics (2002) in its *Digest of Education Statistics* reported that 43.6% (5,898,000) of the 13,514,000 public high school students in the United States enrolled in foreign language

classes in 2000. Similarly, the California Basic Educational Data System (California Department of Education, 2003b) reported that 43.6% (798,438) of the 1,830,664 California high school students enrolled in foreign language classes in the 2002–2003 school year.

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