

Policy Paper No. PP90-1-1
Graduate Follow-up Survey
of the June 1988 Graduates
of the
California Partnership Academies

Charles Dayton and David Stern
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Charles Dayton is a Policy Analyst with PACE. David Stern is a Professor of Education with the School of Education, UC Berkeley.

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Executive Summary

This paper presents findings from a follow-up survey of graduates of California's Partnership Academies. From the fall of 1985 through the spring of 1988 twelve Partnership Academy programs were operated in California under state sponsorship. Academies, which are directed at reducing dropouts among "at-risk" high school youth, combine a modified high school curriculum and structure with a number of specific elements: 1) a student selection process designed to enroll students with potential, but whose past performance indicates they are in danger of dropping out; 2) a school-within-a-school administrative structure, such that Academy students take three core academic subjects as a group in grades 10–12 with selected teachers; 3) along with the academic classes, participants in grades 10–12 take a technical course designed to provide them with basic job skills in a promising labor market field in their geographical area; 4) strong support from local businesses, including curriculum input, speakers, field trip sites, mentors, and work experience positions; and 5) both high school and district support for the program, providing the necessary teacher coordination time, facilities, equipment, curriculum development, and counseling support.

Academies represent three-way partnerships among the state, local school districts, and supporting companies. The state provides grants to districts with an Academy, which must be matched by direct or in-kind support by *both* the receiving district and local business community. Thus the funding mechanism is designed to encourage cooperation among school districts and the private sector. In addition, the state grant is based on a formula directly reflecting program performance; its size is determined by the number of program students who perform adequately in terms of attendance and earned credits each year. These structures in the funding mechanism for Academies encourage both school-business cooperation and a focus on student outcomes.

Eight of the twelve Academies operating from 1985 through 1988 were utilized in this survey of the June 1988 graduates. They include the two Peninsula Academies, which were in their seventh year of operation during the 1987–88 school year, and six of the replications begun in the fall of 1985 (all those that had graduates in June 1988). Two programs were terminated before this point, and two others operated on a cycle which resulted in the first class graduating in June 1989. Two of these were in the San Francisco Bay Area, three in or near Sacramento, and one in Bakersfield.

From November through February, 1988–89, the graduates were contacted by telephone and interviewed. The interview was structured into sections pertaining to post-graduate education, work, or military service, as well as perceptions about their high school and post-high school experiences. A comparison group of non-Academy students was interviewed as well.

One finding of the follow-up survey is that fewer Academy students dropped out of high school in their senior year than did comparison group students (3% versus 5%). While this difference is not statistically significant, it reflects a continuing discrepancy in dropout rates between the two groups that appears throughout the three year course of the Academy program.

The most common form of activity among graduates, in both the Academy and comparison group, is going to school, which about two-thirds do. Among those in school, most are in two year colleges, and half intend to earn a Bachelor's Degree. About three-quarters of those in school are enrolled full-time. Somewhat more Academy than comparison graduates are enrolled in degree programs (77% versus 62%).

About two-thirds of the graduates from both groups are also working, on the average about 30 hours per week. While Academy graduates started after graduation with slightly higher wages, this difference had largely disappeared by the time of the survey, roughly six months later. Among those graduates who are both working and attending school (about two-thirds of those working), however, Academy graduates not only began with higher wages but increased this gap by the time of the survey.

Graduates of both groups report they are generally "fairly well" satisfied with both their high school preparation and achievements since graduation.

These survey results are tentative. A second, more extensive follow-up survey is planned of both June 1988 and June 1989 graduates during Winter 1989–90. Nonetheless, results are notable given that the comparison group reflected in the survey is a relatively selective one compared to the Academy group.

Policy Analysis for California Education

Policy Analysis for California Education, PACE, is a university-based research center focusing on issues of state educational policy and practice. PACE is located in the Schools of Education at the University of California, Berkeley and Stanford University. It is funded by the William and Flora Hewlett Foundation and directed jointly by James W. Guthrie and Michael W. Kirst. PACE operates satellite centers in Sacramento and Southern California. These are directed by Gerald C. Hayward (Sacramento) and Allan R. Odden (University of Southern California).

PACE efforts center on five tasks: (1) collecting and distributing objective information about the conditions of education in California, (2) analyzing state educational policy issues and the policy environment, (3) evaluating school reforms and state educational practices, (4) providing technical support to policy makers, and (5) facilitating discussion of educational issues.

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Introduction

Background

From the fall of 1985 through the spring of 1988 twelve Academy programs were operated in California under state sponsorship. Two of these were the Peninsula Academies, operated since 1981 by the Sequoia Union High School District in Redwood City. The remaining 10 were replications of these, now called Partnership Academies. The Academies are directed at reducing dropouts among “at-risk” high school youth. They combine a modified high school curriculum and structure with a number of specific elements:

- A student selection process designed to enroll students with potential, but whose past performance indicates they are in danger of dropping out
- A school-within-a-school administrative structure, such that Academy students take three core academic subjects as a group in grades 10–12 with selected teachers
- Along with the academic classes, participants in grades 10–12 take a technical course designed to provide them with basic job skills in a promising labor market field in their geographical area
- Strong support from local businesses, including curriculum input, speakers, field trip sites, mentors, and work experience positions
- Both high school and district support for the program, providing the necessary teacher coordination time, facilities, equipment, curriculum development, and counseling support.

The high school attrition rate in California is nearly 30%. Among urban schools and minority youth this figure often surpasses 50% (55% percent of the participants in Academies are black or Hispanic). Dropouts among such youth are associated with low self-esteem, dramatically reduced lifetime earnings, crime, single parenthood, and many other problems. At the same time, due to the “baby bust” there is a declining number of graduates and an estimated 40% drop in the number of young people who will be entering the work force by the year 2000. Thus on the one hand young people are leaving high school with no diploma or job skills, and on the other, the economy is suffering from a lack of well-prepared young workers. Academies are designed to address these problems.

Academies represent three-way partnerships among the state, local school districts, and supporting companies. The state provides grants to districts with an Academy, which must be matched by direct or in-kind support by *both* the receiving district and local business community. Thus the funding mechanism is designed to encourage cooperation among school districts and the private sector. In addition, the state grant is based on a formula directly reflecting program performance; its size is determined by the number of program students who perform adequately in terms of attendance and earned credits each year. These structures in the funding mechanism for Academies encourage both school-business cooperation and a focus on student outcomes.

Eight of the twelve Academies operating from 1985 through 1988 were utilized in this survey of the June 1988 graduates. They include:

- The two Peninsula Academies, which were in their seventh year of operation during the 1987–88 school year
- Six of the replications begun in the fall of 1985 (all those that had graduates in June 1988). Two programs were terminated before this point, and two others operated on a cycle which resulted in the first class graduating in June 1989. Two of these were in the San Francisco Bay Area, three in or near Sacramento, and one in Bakersfield.

The In-School Evaluation

An extensive evaluation of the Academies was conducted by PACE from fall 1985 through spring 1988. This evaluation entailed two broad components: process and outcomes. The process evaluation addressed the quality of program implementation and the degree to which programs followed the Academy model. Each site was rated in terms of 27 elements which together comprise the full model. In 1986–87 the ratings ranged from 7.5 to 23, with a mean of 18.0; in 1987–88 they ranged from 14 to 26.5, with a mean of 20.7. Converted to “numerical grades,” the mean implementation grade increased in 1987–88 from 72% to 81%.

The outcomes evaluation addressed the degree to which student performance changed as a result of the Academies. A comparison design was used for this part of the evaluation, in which a group of non-academy students similar to those in each Academy were selected and tracked along with the Academy students. Comparisons were made in terms of

retention in school, attendance, credits earned, courses failed, and grade point averages. A regression model was used to test for differences between program and comparison groups on these dimensions; this model corrects for differences in prior school performance, gender, race or ethnicity, and date of birth.

Of 270 tests of differences between Academy and comparison group students on their performance during these three years, 61 were statistically significant in favor of Academy students and 11 in favor of comparison groups. These differences were spread about equally across four variables: attendance, credits earned, courses failed, and grade point averages.

A fifth dimension, retention in school, showed a statewide dropout rate among the first cohort of Academy students, across three years, of 7.3% and among comparison group students of 14.6%. The transfer rate among Academy students was 25.6% and among comparison students 33.1%. Thus the attrition rate, the combination of dropouts and transfers, was 32.9% for Academy students and 47.7% for comparison students. These figures suggest the Academies have some effect in reducing transiency between schools and substantial effect in reducing dropouts.

Feedback from student questionnaires showed that most students in the Academies liked the Academy equipment and materials with which they worked, saw a clear connection between their Academy studies and post-graduate plans, and preferred the Academy over their regular high school program. Relatively few students were developing career plans through the Academies; most planned to attend some form of college upon graduation. A significant proportion of students reported more positive feelings toward their class work after being in the Academy.

Nature of the Graduate Follow-up Survey

While this in-school evaluation provided evidence of the Academies' impact on students while they were in school, the ultimate objective was to improve students' post-graduate performance. Would more students obtain jobs as a result of being in the program? Would they earn higher wages? Would more students attend college? Would they have higher educational ambitions?

To address these questions, the William and Flora Hewlett Foundation sponsored a follow-up survey of the June 1988 graduates from the Academies and comparison groups. From November through February 1988–89, the graduates were contacted by telephone and interviewed. The interview was structured into sections pertaining to post-graduate education, work, or military service, as well as perceptions about their high school and post-high school experiences. The full Interview Guide used in the survey is presented in the appendix to this report.

Response Rate

Table 1 on the next page provides a picture of the survey group that was interviewed in each site, and across sites. It shows the survey response rate achieved among expected graduates, the number of students who failed to graduate, and the number thus available as graduates for the subsequent analyses. Across the four sites, 171 Academy and 127 comparison group graduates were intact in their respective groups as seniors. Of these, 142 program and 91 comparison group students graduated and were reached in the survey.

It is often difficult to locate students after they graduate, and sometimes difficult to secure their cooperation for such a survey. Extensive efforts were made to reach these graduates. Their telephone numbers and addresses were obtained from them before they left high school in June 1988. Several attempts were made to reach each graduate when this proved difficult. The final response rate achieved is relatively high for such a survey (86% for Academy graduates and 76% for comparison group graduates).

Table 1. Response and graduation rates among participants

| | Initial N* | Response Rate | Did Not Graduate** | N Used In Analysis |
|-----------------------|------------|---------------|--------------------|--------------------|
| Bakersfield | | | | |
| Program | 13 | 100% (12) | 0% (0) | 12 |
| Comparison Group | 26 | 100% (26) | 15% (4) | 22 |
| Mountain View | | | | |
| Program | 7 | 100% (7) | 14% (1) | 6 |
| Comparison Group | 18 | 100% (18) | 11% (2) | 16 |
| Oakland Tech | | | | |
| Program | 34 | 79% (27) | 4% (1) | 26 |
| Comparison Group | 8 | 38% (3) | 0% (0) | 3 |
| Oak Ridge | | | | |
| Program | 14 | 93% (13) | 0% (0) | 13 |
| Comparison Group | 9 | 78% (7) | 0% (0) | 7 |
| Rio Cazadero | | | | |
| Program | 9 | 89% (8) | 11% (1) | 7 |
| Comparison Group | 13 | 100% (13) | 0% (0) | 13 |
| Hiram Johnson | | | | |
| Program | 36 | 94% (34) | 6% (2) | 32 |
| Comparison Group | 15 | 67% (10) | 0% (0) | 10 |
| Menlo-Atherton | | | | |
| Program | 27 | 78% (21) | 0% (0) | 21 |
| Comparison Group | 18 | 28% (5) | 0% (0) | 5 |
| Sequoia | | | | |
| Program | 32 | 78% (25) | 0% (0) | 25 |
| Comparison Group | 20 | 75% (15) | 0% (0) | 15 |
| Total | | | | |
| Program | 171 | 86% (147) | 3% (5) | 142 |
| Comparison Group | 127 | 76% (97) | 5% (6) | 91 |

* "N" stands for the number of participants. The "Initial N" is all those who were seniors the previous year and whom we expected to track.

** Of those located, this column reports the number who had failed to graduate as expected. These non-graduates are subtracted from the analysis.

There are nevertheless reasons why the results obtained in this survey should be regarded with caution. First, the analysis uses data only from Academy and comparison group *graduates*. The three-year in-school evaluation showed that the Academies on average reduced dropouts by half (from 14.6% to 7.3%, across three years). Thus while the Academy and comparison groups were matched at the programs' beginning, in grade 10, they may be no longer. The differential dropout rate could cause a bias in favor of the comparison group graduates, who represent a smaller and more selective proportion of the original matched groups than is true of the Academy graduates.

This problem is heightened by the fact that more of the Academy graduates were reached in the follow-up survey (86%, versus 76% of the comparison group). Usually graduates engaged in some responsible activity, such as college or work, are easier to track down than those not so engaged. This discrepancy gives the findings reported here a "conservative" slant; that is, any differences favoring the Academy graduates are probably under-reflected in the data. A second follow-up survey is planned, of both June 1988 and June 1989 graduates, during the winter of 1989–90. Hopefully this will provide a firmer data base and will help to eliminate the uncertainties associated with this one.

Results Of The Survey

Status of Graduates

What do the data from the survey show? What are graduates doing six months after graduation? How do those students who were in the program compare with those who were not? There are four categories into which graduates can fall in this respect: "going to school," "working," "in the military," and "neither in school nor working." Table 2 shows the status of the graduates with respect to these four categories, both by site and across the eight sites. In Table 2 and subsequent tables, the numbers in parentheses are the numbers of graduates who responded to each of the particular questions.

Table 2. Status of graduates* (N in parentheses)

| | Going to School | Working | In the Military | Neither School Nor Work |
|-----------------------|-----------------|---------|-----------------|-------------------------|
| Bakersfield | | | | |
| Program (12) | 50% | 58% | 0% | 17% |
| Comparison Group (22) | 55% | 82% | 0% | 18% |
| Mountain View | | | | |
| Program (6) | 67% | 100% | 0% | 0% |
| Comparison Group (16) | 75% | 75% | 6% | 0% |
| Oakland Tech | | | | |
| Program (26) | 81% | 62% | 4% | 4% |
| Comparison Group (3) | 67% | 67% | 33% | 0% |
| Oak Ridge | | | | |
| Program (13) | 38% | 77% | 15% | 8% |
| Comparison Group (7) | 57% | 71% | 0% | 14% |
| Rio Cazadero | | | | |
| Program (7) | 43% | 43% | 29% | 14% |
| Comparison Group (13) | 54% | 62% | 8% | 15% |
| Hiram Johnson | | | | |
| Program (32) | 63% | 50% | 13% | 3% |
| Comparison Group (10) | 70% | 50% | 10% | 10% |
| Menlo-Atherton | | | | |
| Program (21) | 67% | 67% | 5% | 0% |
| Comparison Group (5) | 100% | 20% | 0% | 0% |
| Sequoia | | | | |
| Program (25) | 72% | 68% | 4% | 8% |
| Comparison Group (15) | 60% | 93% | 0% | 0% |
| Total | | | | |
| Program (142) | 64% | 63% | 8% | 6% |
| Comparison Group (91) | 64% | 71% | 4% | 9% |

* Rows do not necessarily add to 100%; students may be in school *and* working.

The cross-site figures show that Academy and comparison group students are in school at the same rate of 64%. Slightly more comparison students are working, 71% versus 63%. Contrastingly, slightly more Academy graduates are in the armed services, 8% versus 4%. And slightly fewer Academy graduates are “neither in school nor working,” 6% versus 9%. None of these differences is statistically significant.

Graduates In School

One subset of questions pertains to the graduates enrolled in some form of postgraduate education. There are many forms of schooling available, from one or two-year vocational programs to enrollment in full four-year colleges or universities leading to a Bachelor's Degree. Table 3 shows the breakout of students in each category of schooling, while Table 4 shows the ambitions and eventual educational goals of graduates.

Table 3 shows that Academy and comparison graduates had similar patterns of enrollment. Slightly more Academy graduates were in vocational or business programs (8% versus 0%). Most graduates in both the Academy and comparison groups who were in school were in either a junior/community or four-year college (91% and 95% respectively). Comparison graduates were found more often in four-year colleges (24% versus 14%). Again, none of these differences is statistically significant. A separate question (not shown in the table) reveals that 77% of Academy graduates in a two- or four-year college were in a *degree* program, versus 62% of comparison graduates.

Table 3. Type of school attended* (N in Parentheses)

| | Adult Night | Vocational/ Business | Junior College | Four Year |
|-----------------------|-------------|-------------------------|----------------|-----------|
| Bakersfield | | | | |
| Program (6) | 0% | 17% | 83% | 0% |
| Comparison Group (11) | 0% | 0% | 91% | 9% |
| Mountain View | | | | |
| Program (4) | 0% | 25% | 75% | 0% |
| Comparison Group (11) | 0% | 0% | 73% | 27% |
| Oakland Tech | | | | |
| Program (21) | 0% | 5% | 29% | 67% |
| Comparison Group (2) | 0% | 0% | 100% | 0% |
| Oak Ridge | | | | |
| Program (5) | 0% | 0% | 100% | 0% |
| Comparison Group (4) | 25% | 0% | 75% | 0% |
| Rio Cazadero | | | | |
| Program (3) | 0% | 0% | 100% | 0% |
| Comparison Group (7) | 0% | 0% | 100% | 0% |
| Hiram Johnson | | | | |
| Program (20) | 5% | 5% | 80% | 10% |
| Comparison Group (7) | 0% | 0% | 86% | 14% |
| Menlo-Atherton | | | | |
| Program (13) | 0% | 15% | 46% | 38% |
| Comparison Group (5) | 0% | 0% | 40% | 60% |
| Sequoia | | | | |
| Program (17) | 0% | 6% | 88% | 6% |
| Comparison Group (9) | 0% | 0% | 100% | 0% |
| Total | | | | |
| Program (89) | 1% | 8% | 68% | 25% |
| Comparison Group (56) | 2% | 0% | 81% | 14% |

* Where rows fail to total 100% it is due to rounding error.

Table 4 reports on the educational plans of those graduates enrolled in school. The correspondence between Academy and comparison group graduates is very close, with 60% of Academy graduates and 59% of comparison graduates planning on four-year degrees. Again, no differences found here are statistically significant. The higher proportion of Academy graduates actually *in* a degree program at the time of the survey (77% versus 62%) suggests a closer correspondence between their plans and the likelihood of achieving them, however.

Table 4. Educational plans of those in school* (N in parentheses)

| | Vocational Certificate | Two-year Degree | Four year Degree | Graduate Degree |
|----------------------------|------------------------|-----------------|------------------|-----------------|
| Bakersfield | | | | |
| Program (5) | 0% | 60% | 40% | 0% |
| Comparison Group (10) | 30% | 20% | 50% | 0% |
| Mountain View | | | | |
| Program (4) | 0% | 50% | 25% | 25% |
| Comparison Group (12) | 0% | 17% | 50% | 33% |
| Oakland Tech | | | | |
| Program (21) | 0% | 5% | 57% | 38% |
| Comparison Group (2) | 0% | 50% | 50% | 0% |
| Oak Ridge | | | | |
| Program (5) | 0% | 0% | 80% | 20% |
| Comparison Group (3) | 0% | 33% | 67% | 0% |
| Rio Cazadero | | | | |
| Program (3) | 0% | 33% | 67% | 0% |
| Comparison Group (7) | 14% | 29% | 57% | 0% |
| Hiram Johnson | | | | |
| Program (17) | 12% | 12% | 76% | 0% |
| Comparison Group (7) | 0% | 14% | 86% | 0% |
| Menlo-Atherton (14) | | | | |
| Program (14) | 0% | 14% | 43% | 43% |
| Comparison Group (4) | 0% | 0% | 75% | 25% |
| Sequoia | | | | |
| Program (15) | 7% | 27% | 67% | 0% |
| Comparison Group (9) | 0% | 11% | 56% | 33% |
| Total | | | | |
| Program (84) | 4% | 18% | 60% | 19% |
| Comparison Group (54) | 7% | 19% | 59% | 15% |

* Where rows fail to total 100% it is due to rounding error.

Other distinctions among those graduates enrolled in school includes whether they are full or part-time, and whether they are receiving financial aid. Table 5 provides a picture of the graduates in these respects. As this table shows, the pattern of Academy and comparison groups is again similar. About three-fourths of students are full-time. Academy graduates are in school slightly more hours per week (14.6 versus 13.0). And substantially more Academy graduates are receiving financial aid (27% versus 9%). This statistic tends to confirm the likely bias between Academy and comparison groups in the overall findings of the survey, as about three times as many Academy graduates surveyed appear to be economically disadvantaged.

Table 5. Time in school, financial aid

| | Percent Full-time | Mean hours/ work in school | Receiving Financial Aid |
|-----------------------|-------------------|----------------------------|-------------------------|
| Bakersfield | | | |
| Program (6) | 67% | 16.7 | 17% |
| Comparison Group (12) | 58% | 12.8 | 17% |
| Mountain View | | | |
| Program (4) | 75% | 20.3 | 0% |
| Comparison Group (12) | 92% | 11.3 | 8% |
| Oakland Tech | | | |
| Program (21) | 100% | 14.2 | 67% |
| Comparison Group (2) | 0% | 10.0 | 0% |
| Oak Ridge | | | |
| Program (5) | 40% | 10.8 | 0% |
| Comparison Group (4) | 75% | 18.5 | 25% |
| Rio Cazadero | | | |
| Program (3) | 67% | 16.0 | 0% |
| Comparison Group (7) | 57% | 13.6 | 0% |
| Hiram Johnson | | | |
| Program (20) | 65% | 13.3 | 20% |
| Comparison Group (7) | 71% | 11.9 | 0% |
| Menlo-Atherton | | | |
| Program (14) | 93% | 15.5 | 29% |
| Comparison Group (5) | 100% | 15.2 | 0% |
| Sequoia | | | |
| Program (18) | 67% | 14.8 | 11% |
| Comparison Group (9) | 89% | 13.1 | 11% |
| Total | | | |
| Program (91) | 77% | 14.6 | 27% |
| Comparison Group (58) | 74% | 13.0 | 9% |

Working Graduates

There are many avenues through which students may secure jobs, ranging from school programs to public or private employment agencies, direct applications to employers, or through the help of relatives and friends. Table 6 shows the means by which those graduates who were working gained their employment. Slightly more of the Academy graduates report finding their job through school (17% versus 11%), while slightly more comparison graduates did so through a relative or friend (48% versus 41%).

Table 6. Means by which employment was obtained* (N in parentheses)

| | School | Publ./Pri. Agency | Employer Directly | Relative/ Friend |
|-----------------------|--------|----------------------|----------------------|---------------------|
| Bakersfield | | | | |
| Program (7) | 0% | 0% | 14% | 86% |
| Comparison Group (18) | 6% | 0% | 56% | 39% |
| Mountain View | | | | |
| Program (4) | 0% | 25% | 50% | 25% |
| Comparison Group (12) | 33% | 0% | 25% | 42% |
| Oakland Tech | | | | |
| Program (16) | 19% | 6% | 38% | 38% |
| Comparison Group (2) | 0% | 0% | 50% | 50% |
| Oak Ridge | | | | |
| Program (10) | 0% | 0% | 40% | 60% |
| Comparison Group (5) | 0% | 0% | 20% | 80% |
| Rio Cazadero | | | | |
| Program (3) | 0% | 0% | 67% | 33% |
| Comparison Group (8) | 13% | 0% | 25% | 63% |
| Hiram Johnson | | | | |
| Program (13) | 8% | 0% | 54% | 38% |
| Comparison Group (4) | 0% | 25% | 25% | 50% |
| Menlo-Atherton | | | | |
| Program (13) | 38% | 0% | 23% | 38% |
| Comparison Group (1) | 100% | 0% | 0% | 0% |
| Sequoia | | | | |
| Program (16) | 31% | 6% | 38% | 25% |
| Comparison Group (13) | 0% | 8% | 46% | 46% |
| Total | | | | |
| Program (82) | 17% | 4% | 38% | 41% |
| Comparison Group (63) | 11% | 3% | 38% | 48% |

* Rows may not total to 100% because of rounding error.

We also examined the number of hours per week graduates were working, and their starting and current wages. These figures are presented in Table 7. As this table shows, Academy graduates were working on average about three hours more per week than comparison graduates (31.2 hours versus 27.9). This difference is statistically significant at the 0.05 level (one-sided test, correcting for unequal variances). Academy graduates also started out with higher wages than comparison graduates (\$5.01 per hour versus \$4.75), although by the time of the survey, about six months after graduation, this difference had largely disappeared.

Table 7. Mean hours worked per week, hourly wages (N in parentheses*)

| | Mean Hours Worked | Mean Starting Wages | Mean Current Wages |
|-----------------------|-------------------|---------------------|--------------------|
| Bakersfield | | | |
| Program (7) | 35.6 | \$4.06 | \$4.60 |
| Comparison Group (17) | 25.8 | \$4.36 | \$4.59 |
| Mountain View | | | |
| Program (6) | 31.0 | \$5.64 | \$7.34 |
| Comparison Group (11) | 27.8 | \$5.10 | \$5.89 |
| Oakland Tech | | | |
| Program (16) | 27.2 | \$5.18 | \$5.40 |
| Comparison Group (2) | 19.0 | \$4.25 | \$5.00 |
| Oak Ridge | | | |
| Program (10) | 41.8 | \$4.66 | \$5.18 |
| Comparison Group (5) | 31.8 | \$3.99 | \$4.73 |
| Rio Cazadero | | | |
| Program (3) | 33.0 | \$4.63 | \$5.50 |
| Comparison Group (8) | 32.4 | \$4.46 | \$5.18 |
| Hiram Johnson | | | |
| Program (16) | 31.3 | \$4.56 | \$4.96 |
| Comparison Group (5) | 26.2 | \$5.35 | \$5.95 |
| Menlo-Atherton | | | |
| Program (14) | 27.2 | \$5.57 | \$5.88 |
| Comparison Group (1) | 15.0 | — | — |
| Sequoia | | | |
| Program (17) | 30.1 | \$5.33 | \$6.16 |
| Comparison Group (13) | 29.4 | \$5.25 | \$7.10 |
| Total | | | |
| Program (89) | 31.2 | \$5.01 | \$5.66 |
| Comparison Group (62) | 27.9 | \$4.75 | \$5.56 |

* In this table, the number responding varies slightly between columns.

Tables 8 and 9 report the findings on hours worked and wages separately for those graduates in school and not in school, respectively. Table 8 shows that about two-thirds of those graduates working, from both the Academy and comparison groups, were also enrolled in school. Among these graduates, the Academy group was working on average about three hours more per week than the comparison group (26.5 versus 23.7 hours). Academy graduates' earnings began higher (\$5.00/hour versus \$4.65), and this gap had widened by the time of the survey (to \$5.82 versus \$5.31). Each of these differences is statistically significant at the 0.10 level (one-sided test, correcting for unequal variances).

Table 8. Mean hours worked per week, hourly wages, graduates who are also in school (N in parentheses*)

| | Mean Hours Worked | Mean Starting Wages | Mean Current Wages |
|-----------------------|-------------------|---------------------|--------------------|
| Bakersfield | | | |
| Program (4) | 24.3 | \$4.15 | \$4.67 |
| Comparison Group (11) | 23.3 | \$4.47 | \$4.75 |
| Mountain View | | | |
| Program (4) | 29.3 | \$5.40 | \$7.40 |
| Comparison Group (8) | 21.0 | \$5.26 | \$6.46 |
| Oakland Tech | | | |
| Program (12) | 22.1 | \$5.35 | \$5.67 |
| Comparison Group (2) | 19.0 | \$4.25 | \$5.00 |
| Oak Ridge | | | |
| Program (5) | 43.6 | \$4.89 | \$5.54 |
| Comparison Group (3) | 29.0 | \$3.65 | \$4.63 |
| Rio Cazadero | | | |
| Program (2) | 32.0 | \$4.63 | \$5.50 |
| Comparison Group (6) | 30.3 | \$4.61 | \$5.08 |
| Hiram Johnson | | | |
| Program (9) | 26.7 | \$4.53 | \$4.99 |
| Comparison Group (4) | 22.8 | \$4.94 | \$5.69 |
| Menlo-Atherton | | | |
| Program (8) | 21.1 | \$5.32 | \$5.71 |
| Comparison Group (1) | 15.0 | — | — |
| Sequoia | | | |
| Program (13) | 26.2 | \$5.16 | \$6.87 |
| Comparison Group (7) | 22.4 | \$4.65 | \$5.56 |
| Total | | | |
| Program (57) | 26.5 | \$5.00 | \$5.82 |
| Comparison Group (42) | 23.7 | \$4.65 | \$5.31 |

* In this table, the number responding varies slightly between columns.

The picture was not the same for those graduates who were working but not in school, however, as Table 9 shows. The Academy graduates in this group were also working about three hours more per week (39.6 versus 36.8), but while their initial wages had started out at the same level as the comparison graduates (\$5.02 versus \$4.96), they had not kept pace, and were less than the comparison graduates at the time of the survey (\$5.36 versus \$6.05).

Table 9. Mean hours worked per week, hourly wages, graduates who are working only (N in parentheses*)

| | Mean Hours Worked | Mean Starting Wages | Mean Current Wages |
|-----------------------|-------------------|---------------------|--------------------|
| Bakersfield | | | |
| Program (3) | 50.7 | \$3.93 | \$4.52 |
| Comparison Group (6) | 30.3 | \$4.18 | \$4.30 |
| Mountain View | | | |
| Program (2) | 34.5 | \$6.00 | \$7.25 |
| Comparison Group (4) | 46.7 | \$4.76 | \$4.95 |
| Oakland Tech | | | |
| Program (4) | 42.5 | \$4.60 | \$4.60 |
| Comparison Group (0) | — | — | — |
| Oak Ridge | | | |
| Program (5) | 40.0 | \$4.42 | \$4.82 |
| Comparison Group (2) | 36.0 | \$4.25 | \$4.50 |
| Rio Cazadero | | | |
| Program (1) | 35.0 | — | — |
| Comparison Group (2) | 38.5 | \$4.00 | \$5.48 |
| Hiram Johnson | | | |
| Program (7) | 37.1 | \$4.59 | \$4.90 |
| Comparison Group (1) | 40.0 | \$7.00 | \$7.00 |
| Menlo-Atherton | | | |
| Program (6) | 35.3 | \$5.91 | \$6.06 |
| Comparison Group (0) | — | — | — |
| Sequoia | | | |
| Program (4) | 42.5 | \$5.81 | \$5.94 |
| Comparison Group (6) | 37.5 | \$5.81 | \$8.64 |
| Total | | | |
| Program (32) | 39.6 | \$5.02 | \$5.36 |
| Comparison Group (20) | 36.8 | \$4.96 | \$6.05 |

* In this table, the number responding varies slightly between columns.

Program Ratings and Feedback

At the end of the interview respondents were asked to reflect on their high school experience and assess how well their courses prepared them for the work or schooling in which they were now engaged. They were also asked to rate themselves on how well they believed they were doing.

Table 10 summarizes the feedback related to the first two of these questions. As this table shows, the patterns of response are very similar between the Academy and comparison group students, with no statistically significant differences. The ratings are generally favorable, averaging about a 2.0, indicating graduates are “fairly well” satisfied with both their high school preparation and achievements since graduation.

Table 10. Graduates ratings of “how well prepared” and “how well doing” (1=extremely well; 5=very poorly)

| | How Well Prepared | How Well Doing |
|-----------------------|-------------------|----------------|
| Bakersfield | | |
| Program (12) | 1.2 | 1.5 |
| Comparison group (22) | 1.9 | 2.2 |
| Mountain View | | |
| Program (6) | 2.0 | 1.6 |
| Comparison group (16) | 2.3 | 1.8 |
| Oakland Tech | | |
| Program (26) | 2.2 | 1.9 |
| Comparison Group (3) | 1.7 | 2.3 |
| Oak Ridge | | |
| Program (13) | 2.8 | 1.6 |
| Comparison Group (7) | 2.1 | 1.4 |
| Rio Cazadero | | |
| Program (7) | 1.8 | 1.5 |
| Comparison Group (13) | 3.0 | 1.9 |
| Hiram Johnson | | |
| Program (32) | 2.3 | 2.1 |
| Comparison Group (10) | 2.0 | 2.0 |
| Menlo-Atherton | | |
| Program (21) | 2.1 | 2.0 |
| Comparison Group (5) | 2.0 | 1.5 |
| Sequoia | | |
| Program (25) | 2.0 | 2.0 |
| Comparison Group (15) | 2.1 | 1.9 |
| Total | | |
| Program (142) | 2.1 | 1.9 |
| Comparison group (91) | 2.2 | 1.9 |

Conclusions

It is difficult to draw any clear conclusions from a survey of so few graduates. This is particularly true given the discrepancy in dropout rates between the Academy and comparison groups (the rate over three years was half for Academy students what it was for comparison students, 7.3% versus 14.6%). In addition, almost twice the percent of graduates among the comparison group could not be reached in the survey (24%) as was true for Academy graduates (14%).

In research parlance, these differences make the survey's design substantially "conservative." They suggest the likelihood that the Academy and comparison groups, matched at the time they entered tenth grade, are not matched in this survey, and that the comparison group reflected here is a relatively selective one compared to the Academy group. As a result, the findings reported here must be viewed as tentative. A second follow-up survey is planned, of both June 1988 and June 1989 graduates, during the winter of 1989-90. Hopefully this will provide a firmer data base and will help to eliminate the uncertainties associated with this one.

One finding of the follow-up survey is that fewer Academy students dropped out of high school in their senior year than did comparison group students (3% versus 5%). While this difference is not statistically significant, it reflects a continuing discrepancy in dropout rates between the two groups that appears throughout the three year course of the Academy program.

Most of the questions examined showed no significant differences between the Academy and comparison group graduates. The most common form of activity among graduates is going to school, which about two-thirds do. Among those in school, most are in two year colleges. About half intend to earn a Bachelor's Degree. About three-quarters of those in school are enrolled full-time. Somewhat more Academy than comparison graduates are enrolled in degree programs (77% versus 62%), while fewer say they plan to obtain graduate degrees (15% versus 19%), suggesting a higher correspondence between educational ambitions and achievements among this group.

About two-thirds of the graduates from both groups are also working, on the average about 30 hours per week. While Academy graduates started after graduation with slightly higher wages, this difference had largely disappeared by the time of the survey, roughly six

months later. Among those graduates who are both working and attending school (about two-thirds of those working), however, Academy graduates not only began with higher wages but increased this gap by the time of the survey.

Graduates of both groups report they are generally “fairly well” satisfied with both their high school preparation and achievements since graduation, ranking both about a 2 (1=extremely well; 5=very poorly) on a five-point scale.

APPENDIX

GRADUATE INTERVIEW GUIDE

GRADUATE INTERVIEW GUIDE

City: _____ Program Student Comparison Group

Graduate's Name: _____

Address: _____
(Street, city, state, zip code)

Telephone #: _____ Date & Time: _____

Hello, may I speak with (name of graduate)? This is (name of interviewer) from (name of high school). I am conducting a survey of last year's graduates to find out what they are doing now. The questions should take about five minutes. Is now a good time to do this? (If this is not a good time, set up another time to call. If this is the wrong telephone number, try to obtain a current one).

1. Is this telephone number and address still the best way to reach you?

1. Yes 2. No If "no," write in the new ones:

Address: _____

_____ Phone #: _____

2. Did you receive your high school diploma or a GED certificate? (Check one)

1. Diploma 2. GED certificate 3. Neither

3. What are you doing now? Are you: (Read list; check all that apply)

1. Going to school? Yes No If yes, complete Section A.

2. Working? Yes No If yes, complete Section B.

3. In the military? Yes No If yes, complete Section C.

4. Not working or in school? Yes No If yes, complete Section D.

5. Other? (describe):

**COMPLETE ALL APPLICABLE SECTIONS FOR EACH RESPONDENT
COMPLETE SECTION E FOR ALL RESPONDENTS**

**SECTION A
GOING TO SCHOOL**

4. What is the name of the school you are currently attending? (Write in)

5. What kind of school is this? (Check one)

- 1. Adult or night school program
- 2. Vocational, trade, business or other career training school
- 3. Junior or community college (2-year)
- 4. College or university (4 years or more)
- 5. Other (write in): _____

6. Are you planning to receive a degree or are you taking courses not related to any degree program? (Check one)

1. Degree 2. Courses not related to a degree

7. As things stand now, how far in school do you think you will get? (Check one. If unsure, check the respondent's one best guess)

- 1. High school graduation only
- 2. Less than two years of vocational, trade, or business school
- 3. Two years or more of vocational, trade, or business school
- 4. Less than two years of college
- 5. Two or more years of college (including two-year degree)
- 6. Finish college (four- or five-year degree)
- 7. Master's degree or equivalent
- 8. Ph.D., M.D., or other advanced professional degree

8. During the last month, were you classified as a full-time student? (Check one)

1. Yes 2. No 3. Don't Know

9. During the last month, about how many hours a week were your classes scheduled to meet? (Include lectures, shop, lab time, etc. Write in total.)

Hours per week: _____

10. Are you currently receiving financial aid? (Check one)

1. Yes 2. No If "yes," in what form: _____

**SECTION B
WORKING**

11. What kind of job or occupation do you have? (e.g., teller, clerk, etc.)

Write in: _____

12. What kind of business or industry is this job in? (e.g., bank, retail store)

Write in: _____

13. What are your main activities or duties on this job? (e.g., filing, typing)

Write in: _____

14. On this job are you: (check one)

- 1. An employee of a private company
- 2. A government employee (federal, state, local)
- 3. Self-employed in your own business
- 4. Working without pay in a family business
- 5. Working without pay in a volunteer job

15. When did you start this job? _____
(month/day/year)

16. How did you find this job? (Check the main method used)

- 1. School placement service (Specify: _____)
- 2. Public employment service
- 3. Private employment agency
- 4. Newspaper advertisement
- 5. Checked with employer directly
- 6. Through a relative
- 7. Through a friend
- 8. Civil Service application
- 9. Union Registration
- 10. Other (Write in: _____)

17. How many hours a week do you usually work in this job? _____

18. What was your gross starting hourly salary before any deductions on this job?
Average in any tips or commission. Estimate if not sure.

\$ _____/hr.

19. What is your gross hourly salary now? \$ _____/hr.

20. Is your current job the sort you were planning for in high school?

1. Yes 2. No 3. Had no plans in high school

21. Are there skills you wish you had acquired in high school, that would help you in your job?

1. Yes 2. No If "Yes," what are they: _____

**SECTION C
MILITARY**

(O.K. to obtain this information from relative)

22. What branch of the service are you in? (Check one)

1. Army
 2. Navy
 3. Air Force

4. Coast Guard
 5. Marines

23. Are you on active duty or reserve status? (Check one)

1. Active duty 2. Reserve Status

24. If on active duty, when did you begin this: _____
(month, year)

25. When will you be discharged: _____
(month, year)

**SECTION D
NOT WORKING OR IN SCHOOL**

26. What is the main reason you are not working or in school now?

27. Are you looking for work? (Check one)

- 1. Yes, I am looking for full-time work
- 2. Yes, I am looking for part-time work
- 3. No, I am not looking for work

If "yes," what kind of job are you seeking: _____

28. When you were in high school, did you plan to go to college?

1. Yes 2. No If "yes," why did you decide not to go
to college: _____

**SECTION E
FINAL QUESTIONS**

29. As you look back over your high school experience, how well do you think your courses prepared you for the work or schooling you are now doing? (Check one)

- | | |
|--|---|
| <input type="checkbox"/> 1. Extremely well | <input type="checkbox"/> 4. Not very well |
| <input type="checkbox"/> 2. Fairly well | <input type="checkbox"/> 5. Very poorly |
| <input type="checkbox"/> 3. So-so | |

30. How would you rate yourself on how well you are doing since graduation? (Check one)

- | | |
|---|---|
| <input type="checkbox"/> 1. Very well | <input type="checkbox"/> 4. Not very well |
| <input type="checkbox"/> 2. Fairly well | <input type="checkbox"/> 5. Very poorly |
| <input type="checkbox"/> 3. So-so | |

31. If there is one message you would like to give to current high school students, what would it be?

Thank you for your participation.
I have enjoyed talking with you.

RELATED REPORTS

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