Career Academies: Building Blocks for Reconstructing American High Schools

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If I hadn't gotten into the academy, my life would be so much different than it is now! It has helped me so much, because I didn't really talk to people that much, and I was very shy. I know it's hard to believe that but I was! I wouldn't be as active in school as I am now, so I just feel as though I'm glad I got into the academy because, you know, all the opportunity I have now, it would never have been possible.(Career academy senior, quoted by Poglinco 1998, p. 15.)

When I talk about the academy, I would very much highlight the fact that it sounds like all you do is work, you're college prep and everything like that, but actually it's not. Our first year, when we thought it was going to be very boring, we were hardly ever in the building because we'd go on field trips every two weeks, to get us more involved in what the academy is about. Instead of us just sitting in class and learning about it, they took us out and hands-on and said, 'Well, this is what we do and this is what you will do.' And that's one thing I can point out to them, it's not boring. It may be harder but it's not boring. They give you a lot of things to deal with and a lot of things to accomplish.(Career academy senior, quoted by Poglinco 1998, p. 13.)

Summary

Career academies, after more than three decades of development and two decades of evaluation, have now been found by a conclusive random-assignment study to be effective in improving the performance of students in high school. Career academies have therefore become the most durable and best-tested component of a high school reform strategy that includes dividing large schools into smaller units.

The number of career academies has been expanding rapidly, in part because academies have been found to be effective, and in part because they embody ideas promoted by several major high school reform movements. This paper describes the growth and evolution of career academies, reviews the evaluation evidence, explains how career academies reflect widely accepted principles of high school reform, and considers prospects for the future.

Growth and Evolution of Career Academies

In the first two decades after their 1969 inception, the growth of career academies was steady but gradual. Since about 1990, growth in the number of academies has accelerated.

Accurate counts of career academies are available only from three organized networks. In Philadelphia, the nonprofit Philadelphia Academies, Inc., has supported career academies since 1969. In California, after two nonprofit-sponsored academies were established in 1981, the state began funding academies in 1985. The nonprofit National Academy Foundation (NAF) has sponsored academies since 1982, and now supports academies in more than 30 different states. Table 1 shows that the number of academies in these three networks together grew to about a hundred in 1990, then expanded to more than 700 in 2000.

Table 1

Growth of Three Career Academy Networks

Year	Philadelphia	California*	National Academy Found
When founded	1969: 1 academy	1981: 2 academies	1982: 1 aca
1980	approximately 5	--	--
1985	approximately 10	12	8
1990	approximately 20	29	54
1995	28	45	167
1998	28	200	289
2000	29	290	400

* Includes only state-funded academies. Approximately an equal number of academies operate in California in 2000 without state funding.

In addition to these three networks, Illinois, Florida, Hawaii, and other states followed

California's lead and began funding career academies in the 1990s. Another academy-building network started in 1997 at the Center for Research on the Education of Students Placed at Risk (CRESPAR), which includes career academies as a major component of the Talent Development High School model (LaPoint et al. 1996). Apart from these organized initiatives, an uncounted number of unaffiliated academies have sprung up independently across the country. The total number of career academies operating in U.S. high schools in 2000 almost certainly exceeds one thousand, and could well be two or three thousand.

Until the 1990s, career academies existed only as separate, small units within larger high schools. For example, a career academy might serve 200 students in a high school containing 2000. In the mid-1990s, however, a number of high schools decided to convert themselves entirely into career academies, or into various kinds of small learning communities (SLCs), some of which are career academies. Lee, Ready, and Johnson (1999) conducted an informal national canvass to identify high schools divided entirely into some kind of small learning environments. They identified 55 such high schools, 80 percent of which were using career academies as the model for the SLCs. CRESPAR's Talent Development High School is an example of this approach; every student in grades 10-12 belongs to a career academy.

What is a career academy?

A career academy is a type of school-within-a-school that provides a college-preparatory curriculum with a career-related theme. A precise national count of career academies has not been attempted, and would be difficult because there is no single, authoritative definition. We coined the term "career academy" in 1992 to encompass the Philadelphia academies, California partnership academies, and the NAF academies (Stern, Raby, and Dayton 1992). Only the California academies are defined in legislation. Nevertheless, these and other career academies generally share three basic features, as identified by researchers at the Manpower Demonstration Research Corporation (MDRC) (Kemple and Rock 1996, p. ES-3):

• First, academies are small learning communities. An academy comprises a cluster of students who have some of the same teachers for at least two years, and who share several classes each year. A group of teachers from academic and technical disciplines are scheduled to have only or mostly academy students in their classes, meet with each other on a regular basis, and share in decision-making related to administrative policies, curriculum content, and instruction. One of these faculty members assumes lead responsibility for administrative tasks and usually serves as a liaison to the school principal and other building administrators, school district officials, and employer partners.

• Second, academies combine a college-preparatory curriculum with a career theme. Examples of common themes are health care, business and finance, communications media, and transportation technology. Academic courses that meet high school graduation and college entrance requirements are linked with technical courses that focus on the academy's field of work. Teachers some have shared planning time to coordinate course content and instructional strategies. Employability skills may be taught in the vocational courses and in one or more academic courses. Work-based learning opportunities for students tie classroom activities to internships with local employer partners. College and career

counseling informs students about options and planning for employment and further education, which may or may not be related to the academy career theme.

• Third, academies embody partnerships with employers. An advisory group for the academy includes representatives from the local employer community, academy faculty, and the school district. Employer representatives give advice on curriculum, appear as guest speakers in classes, supervise student internships, provide financial or in-kind support, and some serve as mentors for individual students.

Origin and development of career academies

The first academies began with a focus on dropout prevention and vocational preparation, but academies soon evolved to include preparation for four-year colleges and universities. Philadelphia established the first career academy in 1969: an "Electrical Academy" at Edison High School, sponsored in collaboration with the Philadelphia Electric Company. The idea was subsequently applied to other fields —— business, automotive, health, environmental technology, law, horticulture, tourism, aviation —— and other high schools, growing to a network of 29 academies in 12 different career areas. The separate nonprofit organizations that had mobilized employer support came together in 1982 as one organization, which is now called Philadelphia Academies, Inc. Supported by corporate contributions and foundation grants, this organization continues to coordinate and subsidize academies in Philadelphia, while the city school district retains jurisdiction and supplies teachers and classrooms. Although the Philadelphia academies began as vocational training programs, today they send most of their graduates to college.

In 1981 the academy idea was introduced in California, starting with a "Computer Academy" at Menlo-Atherton High School and an "Electronics Academy" at Sequoia High School, near Silicon Valley. Based on a series of evaluations that demonstrated improved student performance, California passed legislation in 1984 that supported ten replications of the model. Evaluations of these academies continued the pattern of encouraging results, and in 1987 a second state bill was passed, supporting approximately 40 additional replications. The legislation was renewed again in 1993 and 1999, with continued expansion to a total of 290 in 2000. These academies range over some 25 career fields. Many others have begun on their own, and in many districts there are now several non-funded academies for every one receiving a state grant, with an estimated 500 in all (no one has a precise count). The California Academies formalized the involvement of three academic courses as part of the model, along with one career-related course, in grades 10-12. They also advanced the notion of preparing students for college and careers at the same time.

Also in the 1980s, New York City created the first "Academies of Finance," sponsored by the American Express Company. American Express subsequently joined with other companies, which now number more than 100, to create the National Academy Foundation (NAF). NAF added the field of "Travel and Tourism"

in 1987, "Public Service" in 1990, and "Information Technology" in 1999. NAF provides curriculum, technical support, and professional development for teachers. The NAF academies usually include only grades 11-12, but some individual NAF academies are moving toward the Philadelphia and California models, adding both earlier years of high school and more coordination with academic classes. NAF academies have been college-oriented since their inception.

In the 1990s a number of states and cities began to sponsor career academies. For instance, the Illinois State Board of Education started 20 California-style academies in 1994-95, expanding to about 50 in 2000. Cities with growing numbers of academies include Atlanta, Chicago, Denver, Sacramento, Seattle, Oakland, and Washington, D.C.

Career academies have evolved from an initial focus on traditional vocational education to preparation of high school students for both work and college. According to federal law and historical custom, vocational education traditionally has been directed toward occupations not requiring a bachelor's or advanced degree. Thus it has often been viewed by students and parents as a less desirable option than college prep. Growth in the proportion of jobs that require at least some postsecondary education has further reduced the attraction of traditional vocational education. In contrast, career academies provide broad information about an industry, exposing students to a range of careers requiring various amounts of formal education, and building a foundation on which to add more advanced and specialized postsecondary preparation. Most academies offer a rigorous academic curriculum that qualifies students for admission to a four-year college or university. By linking academic coursework to career themes and workplace experience, academies motivate students to stay in school and attend to their studies —— as a number of evaluations have demonstrated.

Effects Of Career Academies On Student Performance

One good reason why growing numbers of states, districts, and schools have decided to start career academies is that they have been found to be effective in improving students' performance. This section summarizes the evidence to date, focusing on quantitative studies of student performance. The studies and findings are summarized in Tables 2 through 5.

Several studies in California have found that academy students perform better than similar students in the same high schools who are individually matched with academy students on demographic characteristics and ninth grade records of low grades, high absenteeism, and disciplinary problems. An evaluation of the first two academies in California in the early 1980s found that academy students in grades ten through twelve had better attendance, earned more credits, obtained higher grades, and were more likely to graduate than the comparison groups (Reller 1984; additional citations in Stern, Raby, and Dayton 1992; see also Raby 1995). From 1985 through 1988 a similar evaluation of the ten initial state-funded academies in California showed substantial and statistically significant advantages for academy students in attendance, credits earned toward

graduation, grade point averages, and retention through high school (Dayton et al. 1989; Stern et al. 1989).

Annual data collected from state-funded academies in California continue to show improvement after students enter an academy and while they are in it (Dayton 1997). High school dropout rates in academies average about 7 or 8 percent over three years — about half the rate in the general population of California students, despite the fact that state-funded academies are required to recruit a majority of students who are economically or educationally disadvantaged. Although these data describe only the performance of academy students, without comparison groups, they are consistent with the comparison-group evaluations.

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Toolbox

Mentorships and internships

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