To assess the impact of the National Academy Foundation (NAF) career academy (CA) model, a large-scale, multi-site evaluation was undertaken. Survey and interview data on program experiences and postsecondary outcomes were analyzed from nine CA programs. The study used pre-post evaluation of student data, field visits, and written and telephone surveys. It drew on data for 199 graduating CA seniors and a comparison group of 190 non-CA seniors; survey data for 157 alumni who had graduated from 9 long-standing NAF-affiliated CAs 5 and 10 years before the study; survey data for 34 CA and 26 non-CA teachers; and survey data for 192 employees. Findings include the following: (1) the program impacts students positively by providing a quality experience they find beneficial and by engaging them in schooling, but it neither adds to nor detracts from their overall academic achievement; (2) as measured by their college enrollment and completion, improved career aspirations, and employment outcomes, the program positively impacts students' postsecondary transitions; (3) for teachers, the CA model challenges them to think differently about their work with students, their teaching, and their work with one another; (4) CAs provided a structured avenue for strategic and substantive employer participation. (Contains 10 references) (YLB)
Shaping Postsecondary Transitions: Influences of the National Academy Foundation Career Academy

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A confluence of educational issues and policy developments has brought renewed emphasis on efforts to improve adolescents' transitions to further education and careers. With raised academic expectations for all students and an economy requiring a more highly skilled labor force, more students are graduating from high school and enrolling in college. Yet many come under-prepared, flounder, and drop out, due in large part to inadequate high school coursework and insufficient college preparation (Adelman, 1999). Inadequate high school coursework and insufficient college preparation have been linked to college dropouts (Carnegie Council on Policy Studies in Higher Education, 1983). The emphasis on academics has increased with the passage of the No Child Left Behind Act (2001). The act seeks to increase academic standards and ensure that all students are prepared for postsecondary education and careers. The act has focused attention on the importance of high school graduation rates, with the expectation that more students will graduate from high school and enroll in postsecondary education.

The researchers also wanted to see how the academy students were doing in terms of post-high school outcomes. They compared the academy students to a comparison group of non-academy students. The researchers found that the academy students had slightly higher college-going rates—28% for academy students and 24% for comparison seniors. The academy students were also more likely to participate in post-secondary education, with 22% of academy students enrolled in college and 11% in technical or vocational training, compared to 18% and 6% for comparison seniors. The academy students were also more likely to have higher GPAs, with 78% of academy students meeting or exceeding college readiness standards, compared to 69% of comparison seniors.

The study used a mixed methodology, including pre-post evaluation of student data, field visits, and written and telephone surveys. The research was limited to well-implemented, long-standing programs. The study was designed to determine whether and to what extent career academies shape students' experiences while in high school and facilitate their transitions to college and careers. The researchers also wanted to see how the program's philosophy, design, and operations yielded benefits for teachers and participating employers.

The study used a comparison group of 190 graduating non-academy seniors; survey data for 157 alumni who had graduated from nine long-standing NAF-affiliated career academies five and ten years before the study began; survey data for 34 academy teachers and 26 non-academy teachers; and survey data for 192 employers. The study used comparison groups selected from the same schools and among seniors who were not affiliated with career-focused programs or other specialized academic programs. Statistical analysis of the academy and comparison seniors showed that, among personal demographics and risk factors commonly associated with educational outcomes, the two samples differed only slightly. Analysis of the two groups' GPAs at the time of enrollment found that on this measure the academy students were slightly advantaged as well. There was no difference in the two samples' attendance rates. The academy sample was somewhat more likely to be interested in the career field or in a better educational experience. The two teacher groups had similar demographic and teaching characteristics, although the academy teachers were somewhat more likely to be male and nonwhite than were the non-academy teachers.

The Career Academy as a Learning Experience

To enroll students in NAF career academies, program staff actively recruit students from their classes, encouraging those who might need a "hook" to stay in
school or who could benefit from a career-focused program of study, but who are not necessarily college-bound.

Most students at NAF-supported career academies have four or more core academy courses during their junior and senior years, a computer or technology course, a paid six-week summer internship with a private company, a college-level course, and a variety of industry exposure and college and career planning activities. In contrast, few comparison seniors had such experiences, except for computer technology courses.

The internship, the program's cornerstone, is typically six to eight weeks of paid summer work in a private industry-affiliated company. Sixty-five percent of the academy seniors (and 84 percent of the alumni) had a paid, program-related summer internship, while only 8 percent of comparison seniors did. Typically the career internship experiences were of high quality, with several attributes that distinguish them from typical after-school work: most NAF career academy students spent some time in training at their internship, were supervised by school staff, had a designated work site supervisor, and, for many, a workplace mentor.

Academy seniors also had a variety of work-based learning experiences and co-curricular activities to help them learn about the industry, explore careers, plan for college, and develop their social and interpersonal skills. They were much more likely than the comparison seniors to talk about colleges in class, learn about financial aid, and visit colleges. Academy seniors were significantly more likely than other seniors to plan for work after high school, to secure a job offer by graduation, and much more likely to participate in career exploration activities, job fairs, mentoring relationships, and practice interviews.

**How the Career Academy Program Impacts Students in School**

The research found that the program impacts students positively by providing a quality experience that they find beneficial and by engaging them in schooling, but it neither adds to nor detracts from their overall academic achievement.

First, academy seniors rated their courses significantly higher than did other seniors for contextualizing the subject matter, supporting student learning, incorporating college and career planning, and being more interesting than other academic classes.

Second, the majority of academy seniors rated their academy experience as highly beneficial academically and in planning for careers. Consequently, most academy seniors felt that they were more prepared for their future than their non-academy friends because of these experiences. Most alumni reported similar assessments, crediting the program for improving their workplace and other interpersonal skills and motivating them academically.

Third, the academy seniors and alumni agreed that their academy experience influenced their career plans: for seniors, it helped them prepare for a career in the field (82 percent), caused them to seek a challenging career path (75 percent), and generally interested them in a career in the field (69 percent). Most alumni (90 percent) agreed that their career academy experience helped them develop their career plans in the academy field or a related area. For many, the academy experience was a pivotal influence on their career direction.

Fourth, the program fostered a supportive learning environment for students through its school-within-a-school organization and thematic focus. Academy seniors were more likely than other seniors to feel motivated by and engaged in schooling, and improved their school attendance more during high school than did other seniors.

Academy seniors had better initial GPAs than did the comparison seniors and did not change this average significantly by their senior year, despite the possible distraction of the work experience and demanding college course.

**The Impact of the Career Academies on Transitions to College and Careers**

As measured by their college enrollment, completion, improved career aspirations, and employment outcomes, the program positively impacted students' postsecondary transitions. Academy seniors took several measures to prepare for college, and significantly more so than comparison seniors, such as completing at least one college-level course and engaging in college planning actions. By the time they were graduating, 77 percent of the academy seniors and 64 percent of the comparison seniors planned to go to college after high school and had already been accepted.

Even when we took into account factors such as gender, race, geographic mobility, parents' educational attainment, advanced academic high school course taking, and initial GPA for the academy and non-academy groups, we found that the academy affiliation independently influenced whether students had planned for and been accepted into a four-year college. Much of this is attributable to the Finance Academy seniors, however, since Travel and Tourism Academy seniors were as likely as the comparison seniors to be planning to work or enroll in a two-year college.

Many program alumni followed through on these positive starts by completing a two-year or four-year college degree within five to ten years. Fifty-two percent of the ten-year alumni and 44 percent of the five-year alumni had completed a four-year degree. Forty-five percent of those with degrees (either two-year or four-year) had earned them in fields related to their academy industry. Moreover, while 20 percent of all first-time college goers reported needing remedial coursework (National Center for Education Statistics, 1998), only 8 percent of the academy alumni did.

Finally, the academy experience positively influenced the participants' employment aspirations and outcomes. The career academy seniors' interest in the academy industries increased significantly during their program years, particularly for travel and tourism seniors. Only some career academy seniors had been interested in their academy's industries when they started, but by the time they graduated, the percentage interested had doubled. The majority of graduating academy seniors planned to combine work and college after high school graduation, and most alumni had. Twenty-six percent of the graduating seniors had plans to work for their internship employer or other academy-affiliated employer in the summer or fall after high school.

Most working alumni appeared to be in career-track positions five and ten years after graduating. Eighty-five per-
cent were working and most were in a professional field. Most of the alumni were satisfied with their current job based on a wide range of job satisfaction characteristics, including its field, the nature of the work, pay, benefits, importance, challenge, security, permanence, and opportunities for advancement.

Many alumni were working somewhat or directly in their academy-affiliated field, and 8 percent of working alumni were still with their original internship employer or one that was academy-affiliated.

How the Program Benefits Teachers

For teachers, the career academy model challenges them to think differently about their work with students, their teaching, and their work with one another. NAF sponsors a national professional development conference, provides contextualized curriculum, and facilitates local business affiliation to engage teachers in the underlying ideas and philosophy of the academy approach. The conference exposes teachers to new ideas and practices from other settings, connects them with teachers from other schools, and engages them in non-school-based learning experiences. The program’s thematic focus, cohort structure, and partial school-within-a-school organization encourage teacher collaboration, making it a more supportive work environment.

According to survey information, the career academy teachers have been with their academy for several years. In six sites, the teachers taught part-time in the program; in the other three sites, they were exclusively with the program. Almost all were committed to the academy philosophy and approach, but only some relied on the NAF curriculum almost exclusively in their academy courses. Most reported using an applied curriculum approach, project-based instruction, and career exploration activities in their academy classes, as recommended by NAF. Most believed that they created a supportive learning environment for their students and for one another.

About half the teachers met together at least monthly, often focusing on instructional strategies and individual students. The majority of teachers had attended at least one NAF conference in the last ten years, and almost all who attended agreed these were effective. For some, these conferences were integral to their teaching—by motivating, inspiring, and building a network. The majority of teachers reported using some business support, through consultation, advice, and training.

By working with a small group of students—whom they often taught several times—teachers developed more supportive relationships with them, reinforcing their commitment to the program, and enhancing their satisfaction in teaching.

How the Program Benefits Employers

Career academies, particularly those affiliated with NAF, also provide a structured avenue for strategic and substantive employer participation. Even with the stress on employer participation in schools through the School-to-Work Opportunities Act, there has been skepticism over the potential for widespread employer involvement in high school programs. Some researchers (Bailey, 1995) have argued that it would be difficult to sustain large-scale employer participation simply for philanthropic reasons. Our research suggests that intermediary organizations, such as NAF, can facilitate schools’ relationships with employers.

NAF encourages its local program affiliates to recruit businesses for program advisory boards, which in turn can facilitate internships, career exploration activities, teacher professional development, and other kinds of instructional support. According to employer interviews, the nine long-standing programs that we studied have attracted well-educated and motivated students permanent positions right after high school. Finally, almost all agreed that their commitment would remain strong in the future, and that they plan to continue as internship sponsors.

Conclusions

From the various debates in recent years about high schools, three converging objectives for transitioning adolescents have emerged: improve their academic skills and performance, increase college-going and college completion, and shorten the floundering period between high school completion and quality employment. Many high school reform recommendations underscore features that are typical for career academies, particularly the NAF-supported ones: creating a small, more intimate learning community; using thematic, contextualized, and challenging curriculum; incorporating student-centered instructional practices; and engaging learning resources from businesses and the community at large.

Until now, limited evidence existed on whether these features, if implemented well, actually yielded the hoped-for outcomes of improved student transitions into and through college and into quality employment. The evidence shown here clearly demonstrates that the NAF-affiliated career academies created a distinguishable experience for participating students. The evidence from this study also demonstrates the value of sustaining an enriched high
school experience that encompasses the workplace as well as the school, is supportive for both students and teachers, and provides a challenging, thematic focus for both teaching and student learning.

The NAF-affiliated academies serve a cross-section of student abilities and interests. They encourage all students to be well prepared for college and develop a strong interest in a career field. These academies improved students' engagement in school and their ability to be successful in college and move into quality employment. The strongest results were from the alumni's current employment, which for most was of high quality, fitted well with their long-range career goals, and, for many, was in a field that related directly or indirectly to their academy's industry.

NAF’s organizational structure seems to contribute significantly to overall model fidelity in the local sites, and to successful employer involvement and quality teacher preparation. NAF personnel guide local program staff in their recruitment of and relationships with local employers. For teachers, NAF provides structured ways to engage with other teachers in improving their teaching craft, focusing their work, and infusing college and career preparation in their work with high school students. NAF’s emphasis on the core program features and on employer and teacher resources seems to encourage sustained program quality, which in turn contributes to students’ success. While positive, these outcomes must be interpreted cautiously. The study is only of program completers, and the comparison group was not randomly selected but chosen as average seniors without a career-program experience. Comparisons of academy and other seniors showed them to be similar on most demographic and risk factors, but the academy seniors had slightly better GPAs when enrolling in the academy than their comparisons. Thus, some positive results may be due to these initial differences or other unaccounted-for factors. Nonetheless, this research shows that the career academy is a viable educational experience that improves students’ engagement in high school and facilitates effective transition to further education and careers.

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References


This Brief was developed at the Institute on Education and the Economy, Teachers College, Columbia University. It was drawn from a longer paper, Shaping Postsecondary Transitions: The Influence of the Career Academy Experience—The National Academy Foundation Story, which is available from IEE. The research was conducted with support from the National Academy Foundation (NAF).
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