

Career Academies and Urban Minority Schooling: Forging Optimism Despite Limited Opportunity

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This qualitative case study focuses on 80 urban minority high school students enrolled in 2 California Career Academies, paying close attention to the cultural and institutional processes that impact their achievement. This study argues that, despite urban inequality, the Career Academy model fosters optimism among low-income minority students. However, students' experiences differ within each academy context. Some Career Academy structures are able to promote positive student relations, whereas others simply reflect the status quo. This phenomenon is primarily due to an uneven recruitment process, the resulting student population of each academy, and the differing Career Academy cultures and institutional mechanisms. This article suggests that Career Academies constitute a potentially successful school reform strategy, despite their limitations.

I cast the same image that Victor's story in *Frankenstein* sheds. Victor oversteps the bounds of science and brings a creature to life in an alien world. Yet, the creature proves that he is human and with a heart, despite an image as a violent beast. I too want to reveal whom I am inside. Maybe I will be able to change the world; I want to make a difference. One day I will win the Nobel Prize for discovering a medical breakthrough. I refuse to be just another ordinary human being—like an unfinished puzzle. (Marisol, Career Academy Junior)

Within an urban California high school rife with violence and low performance, many minority students remain optimistic. Marisol's words, for example, vividly capture high expectations among minority students at Baldwin High School.¹ As a low-income minority high-school student, Marisol is determined to succeed. She plans to become a medical doctor. Marisol is not alone in her quest for social mobility. Many other students at this high school are performing well and plan to enroll in college, despite their profile as potential dropouts. These students are part of two school-within-a-school California Career Academies (or schools-within-schools where teachers typically offer a career-related academic curriculum to students in Grades 9–12 or 10–12) that embrace them, challenge them intellectually, and prepare them for college.

This case study explores how and why two Career Academies that exist within the same high school and promote a common sense of optimism and school success among urban minority students also create distinct peer experiences. This study captures the complexity of the Career Academy model and its influence on African American, Vietnamese, and Latino (Mexican American, Central American, & South American) students' academic and social engagement. Through the voices of teachers and students, the study presents the ability of Career Academies to mediate social and academic engagement, yet also create conditions for racial and ethnic disparity. Finally, and without disregarding their limitations, this study argues that Career Academies are a significant and potentially successful high-school reform strategy.

Despite the historically poor performance of urban minority students, many have defied the odds (Conchas, 2001; Davidson, 1996; Gándara, 1995, 1999; Gibson, 1997; Hubbard, 1995; Mehan, Villanueva, & Lintz, 1996; Steinberg, 1998). Many of those who have succeeded despite obstacles are optimistic in their assessment of the opportunity structure and their own potential to achieve social mobility (Conchas, 2001). Career Academies are one possible education reform initiative contributing to optimism among minority students and promoting for school success.

In the early 1980s, Career Academies in California grew out of the need to retain potential dropouts and prepare at-risk students for the labor force (Stern, Raby, & Dayton 1992). To date, the number of Career Academies in California has increased dramatically. Stern, Dayton, and Raby (1998) suggested two reasons for this increase. First, they cited "evidence that academies are effective in improving students achievement"; they also cited research demonstrating that the design of Career Academies is "strongly congruent with the widely accepted principles of high school reform" (p. 2).

Although Stern et al. (1998) did not believe that an exhaustive definition of Career Academies was possible because of the many variations between and within

¹Baldwin High School is a pseudonym.

them, they did attempt to outline several key features fundamental to the Career Academy model (pp. 21–24):

1. **Small learning communities:** An academy comprises a cluster of students who have some of the same teachers for at least 2 years and who share several classes each year. A group of teachers from academic and vocational disciplines are scheduled to have only or mostly all academy students in their classes. These teachers 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 responsibility for administrative tasks and usually serves as a liaison between the teachers and the school principal, building administrators, school district officials, and employer partners.

2. **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 work. Teachers sometimes have shared planning time to coordinate course content and instructional strategies. Employment and job readiness 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 work internships with local employers. 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.

3. **Partnerships and employers:** An advisory group for the academy includes employment representatives from the local community, academic faculty, and district-wide administrators. Employer representatives give advice on curriculum, appear as guest speakers in classes, supervise student internships, provide financial or in-kind support, and sometimes serve as mentors for individual students.

Because of their emphasis on dropout prevention, some Career Academies have been viewed as vocational programs for low-achieving high school youth. Strong postsecondary outcomes of students in Career Academies, however, indicate the contrary. An evolving key ingredient in the Career Academy model is its persistent push for both low- and high-achieving students to enroll in higher education. For students to become professionals, such as lawyers and doctors, they must seek baccalaureate and graduate degrees. The model also recognizes that, in a knowledge-based economy, all students need to engage in a "thinking curriculum," wherein they are held to more rigorous standards. Most Career Academies foster student interest in various professional endeavors and strongly encourage students to pursue and prepare for postsecondary education (Kemple, 1997; Kemple & Snipes, 2000; Steinberg, 1998; Stern et al., 1992).

Research shows that the Career Academy model has a long tradition of promoting academic excellence. Evaluations have shown that students in Career Academies have a lower dropout rate, perform better, receive more high school diplomas, and are more likely to enroll in postsecondary education than students in comparison groups (Cannon & Reed, 1999; Kemple, 1997; Kemple & Rock, 1996; Kemple & Snipes, 2000; Kopp, Kazis, & Churchill, 1995; Maxwell & Rubin, 1997; Pedraza, Pauly, & Kopp, 1997; Steinberg, 1998; Stern et al., 1992). In addition, Career Academies reflect principles of high-school reform, such as small learning communities and college-preparatory curriculum focused on a work-related theme (Kemple & Snipes, 2000; Steinberg, 1998; Stern et al., 1998). Although research points to the benefits of the Career Academy model for at-risk youth, a certain amount of caution is still in order (Kemple & Snipes, 2000; Maxwell & Rubin, 1997; Stern et al., 1992).

Stern et al. (1992) emphasized the ability of Career Academies to improve student achievement, but also called for more systematic studies exploring the specific aspects of Career Academies that contribute to positive student outcomes. Using a comparative approach between academy and nonacademy students, Maxwell and Rubin (1997) supported the finding that academies positively affect students but also suggested that not all students benefit equally from the academy experience. Their data showed that many students acquire higher grades, score higher on exams, and are more content within the academy. Yet, outcomes for some academy students are not as positive. Although most academy students are able to engage in and benefit from the academy structure, some simply do not show much improvement. In fact, these students, compared to nonacademy students, may not gain substantially from being enrolled in the academy. Maxwell and Rubin acknowledged that their quantitative analysis was unable to explain why this was so, although they did call for further exploration to assess the within- and between-academy processes that may explain differences in school engagement.

A recent study by Manpower Demonstration Research Corporation (MDRC) began the process of systematically addressing the disparity between Career Academies (Kemple & Snipes, 2000). The study found, among other things, that Career Academies that are better able to link career-based curriculum and work-based learning activities with strong interpersonal and academic support are more likely to increase school engagement. Kemple and Snipes specifically stated that a "highly structured school-within-a-school organization can create a necessary set of conditions for providing these supports" (p. 3). A less structured Career Academy, on the other hand, runs the danger of reducing school engagement among some students. Moreover, the study strongly recommended that student populations in Career Academies should be of varied academic ability, because of the significance of peer relations for both at-risk and highly engaged students.

The two Career Academies discussed in this case study forge positive academic experiences and encourage low-income minority students to do well in school. Al-

though both Career Academies are structured for positive school engagement and success, students interact differently depending on the student make-up of each academy. Racial and ethnic heterogeneity created for healthy student interactions as students began to appreciate and experience diversity, whereas students that were not exposed to racial and ethnic diversity often experienced more hostile environments in the larger school setting.

METHOD

Case study methodology has been defined as an empirical inquiry that investigates a contemporary phenomenon within a real-life context (Wells, Hirshberg, Lipton, & Oakes, 1995; Yin, 1994). Data were collected and analyzed with an eye to the context in which the Career Academies functioned in comparison to the larger school setting. Close attention was given to the social forces at work (e.g., tracking) and how these forces do and do not give structure to the institution and to what takes place between various individuals in the institution. A “constructivist” grounded theory approach was employed to study the Career Academies and larger high school culture (Wells et al., 1995), allowing for a theoretically rich interpretation of students’ and teachers’ voices in relation to institutional processes.

This case study was part of a larger comparative racial and ethnic research project of urban high-school students’ engagement and school success (Conchas, 1999). This larger project included data on 80 minority high school students and assessed their responses to the various school structures and cultures. This particular case study focused on data collected in interviews, focus groups, and observations with these students in two Career Academies. It also included interviews with teachers, administrators, and staff at one California high school during the 1996–1997 and 1997–1998 academic years. Semistructured protocols were used to guide interviews and focus groups that lasted 1 to 2 hr each. These were taped and transcribed verbatim. The sample of all students interviewed included 26 Latino, 27 African American, and 27 Vietnamese American students, with an equal number of males and females. Also, the sample incorporated non-Academy students enrolled in the general school program. The Latino and Vietnamese student populations comprised a majority of low-income and single female-headed households, whereas the African American sample included both low- and middle-income families. Focus groups and interviews with a total of 45 teachers, administrators, and staff were also conducted.

This research endeavor was collaborative in nature. The first author was a researcher and the second a practitioner (an urban school teacher). The practitioner was involved with the school on many levels. During the period of the study, her title–role was Academy Director. She began as an English teacher at the high school

and in 1985 helped lead the effort to launch the first Career Academy in the district, along with a core group of teachers. The Medical Academy aimed to provide a powerful work-based learning initiative serving a multicultural community of at-risk urban students. This endeavor was truly a grass-roots initiative that sought to redress existing educational inequalities in the district. As such, this case study included insider as well as outsider knowledge; this helped strengthen both the validity and reliability of the findings.

BALDWIN HIGH SCHOOL AS THE CASE STUDY SETTING

Baldwin High School is located in a large urban city in Northern California. The population of the city is predominantly minority. According to the Census Bureau (1993), the city's racial and ethnic composition was 42.9% African American, 28.3% White, 14.3% Asian, 13.8% Latino, 0.5% Native American, and 0.3% Other. The household medium income of the city ranged from \$27,095 to \$61,171; depending on the part of the city in which the responding family resided. Baldwin High School was built at the turn of the century and is one of several high schools in the district serving a low-income and racially heterogeneous student body, reflective of the larger community.

At the time of the study, Baldwin High School served 1,700 students: 65% African American, 20% Asian American, 10% Latino (mostly Mexican-American), 4% White, and 1% Filipino, Native American, or Pacific Islander. Of these students, 30% qualified for Aid for Dependent Children benefits, 40% qualified for free or reduced-price lunch, and 18% were Limited English Proficient (LEP). At Baldwin High School, more than a dozen different languages are spoken. This school profile is representative of the larger school-district population. The high school struggled with issues of school safety, poor academic performance, and a high dropout rate—mainly among African American and Latino males. The dropout rate was also increasing among the Southeast Asian male population. However, 11% of graduating students attended college. The majority of college-bound students were enrolled in one of several schools-within-schools.

Although a full curriculum was offered at Baldwin High School, ranging from general classes to advanced placement (AP), student access to the various academic niches was not always equitable. The high school housed a Medical Academy for students who were interested in pursuing health related occupations, a Graphics Academy, a Teacher Academy, a Transportation Academy, an English as a Second Language program (ESL), and a well established AP Program. The college preparatory curriculum was composed of standard college prep courses as well as 12 AP and honors courses. Data indicate that the structure of Baldwin High School forms various academic groupings that contribute to differing school experiences.

The General School Climate as Perceived by Teachers and Students

The schooling process at Baldwin High School segregated classes, dividing teachers and students along racial and ethnic lines.² Reflecting this pattern, teachers and students separated themselves socially within classrooms, during lunch, and after school. Baldwin High School was balkanized into small racially and ethnically based academic communities, each with its own home territory. African Americans gathered in front of the school; Latinos, by the boys' gym. Some Asians hung out on the east side of campus; other Asians and Whites stuck to AP and Academy homerooms and classrooms during the day and after school. Many teachers and students noted that Whites, in particular, did not interact with the rest of the school subpopulations, and preferred to remain separate in these classrooms. These racial and ethnic divisions were noted by faculty and students in the two Career Academies and in the general school.

Race also seemed to divide the faculty at Baldwin High School. Black faculty criticized the role of White and Asian teachers, and particularly of Asian counselors, in tracking students. To them, the counselors were the gatekeepers of the tracking system: "They create a suburban atmosphere," said one African American teacher. Another Black faculty member stated, "Something is wrong with access [to special programs]. The class enrollments of the [Graphics Academy] and AP do not reflect the numbers here." A Black female teacher agreed that selection of students for advanced classes were based on race by saying

Take a look at the numbers, I'm sure you will see that the GPAs and test scores show that African Americans are qualified but they do not have access to those programs. The counselors and teachers work together and help out students who are not African American or Latinos. Just look at the numbers!

The majority of African American teachers reported that tracking was indeed the result of race and not social class. For instance, Joyce, an African American English teacher, believed these divisions went "much deeper than class." She explained that although she is a middle-class Black woman, "to many, [she is] first a Black person." She further posited that because she is African American, some of her peers and even some of the parents assumed that she is an easy and incompe-

²Even the racial composition and student achievement patterns of the elementary and middle schools that feed into Baldwin High School promoted these divisions. Students from a predominantly African American elementary–middle school feeder pattern entered Baldwin High School with far less experience in science and math, allowing informal tracking to persist into ninth grade. Ninth-grade students who have completed and are enrolled in algebra take biology, whereas students who are not yet enrolled in algebra (primarily students from the African American feeder middle school, which does not offer algebra) take physical science, which does not meet university entrance requirements.

tent instructor. She believed that Asian and White counselors deliberately moved Asian students out of her classroom and into one with an Asian or White teacher. She said, "The counselors are always moving Asian kids out of my room because they think I'm too easy. But I see it this way: They see me as Black!" Thus, it was not surprising that students at this school also separated themselves along racial lines. Students responded to and reinforced what they were taught within the various academic communities. For instance, Kenia, an African American student in the general school program, noted the following: "Teachers don't get along with themselves. Blacks hang with Blacks and Asians and Whites hang together." Simply put, race divided the teachers at Baldwin and this greatly affected students' social and academic experiences.

Students also made strong links between the racial and ethnic composition of the different academic programs and the racial and ethnic stigma associated with each. Students clearly articulated how the racial and ethnic divisions within each program reflected the racial and ethnic hierarchy present in larger society. Iyana, an African American student, for example, made the following observation concerning the Graphics Academy director's interactions with students:

I don't want to say he is racist, but you can tell the difference between his Asian male students, his Black male students, his female Asian students, and his Black female students. To me, there is a big difference. Favoritism for one! He favors Asian students.

Iyana commented that her teacher was more attentive to the needs of Asian than Black students. Indeed, students recognized the significance of race and academic prestige through their everyday experience of going to school. Diego, a Mexican American student, attempted to make sense of the racial and ethnic divisions in school as well:

I don't think any of this is done directly. All this racial segregation in the school. I don't think there is any one person or group of people that are out to do this at this school, but I think just the ways things have shaped up, things that happen are the way they are because the stereotypes that people hold and they get turned into who gets the best and most challenging things here. Teachers have also been influenced by this, I think that over the years, they have seen it over and over and over again, and after a while, they help in making stereotypes come true.

As Iyana and Diego suggested, racial and ethnic stereotypes are associated with social constructions of race and ethnicity in larger society. The schooling practices, in particular the academic hierarchies, reflected the social ordering of racial and ethnic populations. In this respect, teacher expectations were strongly corre-

lated with race and the formation of academic niches. For instance, teachers had higher expectations for Asian students than they did for Latino or African American students. This often resulted in Asian students' enrollment in higher level courses. In turn, these academic hierarchies correlated with students' school optimism and engagement. Students that were enrolled in more advanced classes exhibited more enthusiasm for school, whereas those in lower level classes felt alienated and insecure about their academic ability.

Student Perceptions About the General School Pathway

Data revealed that the low-achieving students in the general school pathway viewed themselves as "outsiders." These students were not enrolled in any alternative academic structure at school, nor did they express common beliefs about school success. In other words, they did not know how to navigate the educational system to attain success. Instead, these students were enrolled in the lower track classes, and received little support from teachers and peers. These were mostly (a) Latino students who hung out with their peers by the gym during lunch and after school, (b) African American students who hung out in front of the school, and (c) some Vietnamese students who also hung out smoking by the school auditorium. Several students reported that these students might also have been involved in gangs. Fred, for instance, suggested that in his community there were "already about 30 Asian gangs." These students found school boring and disengaging. They cut classes because, as Blanca, a Mexican-American student, explained, "there ain't nothing else to do."

Most of these students attributed their lack of academic motivation and achievement to their marginalized status and lack of guidance from adults and other students. Although many of these students did have career goals and expectations, they were not given enough support from what Stanton-Salazar (1997, 2001) termed key "institutional agents," such as other peers and adult staff members. During interviews and informal conversations, these students expressed interest in becoming computer technicians, nurses, doctors, astronauts, and small business owners, but did not know how to achieve these goals. Kenia, a low-achieving African American female, stated that some students do well "because they have people around them that tell them they can do well." However, she articulated an awareness of the limitations that schooling and society impose on African Americans, believing that such structures would likely impede her from achieving her goals. Likewise, Miguel reported that he had no "support, man, no way of doing it."

Many of the low-achieving students reported few positive role models to whom they could turn for help. They understood the importance of positive peer relationships and caring teachers in the schooling process; however, such relationships and teachers were not available to them. Their sense of isolation and invisibility

translated into a lack of motivation to plan for college or pursue lifelong career goals. Their optimism for academic and career success was limited. The experiences of the general pathway students greatly contrasted with those of the students enrolled in the two Career Academies. Students in the Career Academies were exposed to distinct institutional and support systems early on.

THE MEDICAL ACADEMY AND GRAPHICS ACADEMY

Last year, there were 205 Black male freshmen. By the time they were seniors about 40 graduated. Of the 40 that graduated, one had about a 3.0 GPA, fewer than 12 had above 2.5 GPA, and about half had above a 2.0. The interesting thing is that all of these students were in the academies. (Educational Consultant)³

While noting the dramatic dropout rate among Black males at Baldwin High School, an educational consultant noted that, of those who did graduate, all 40 were Career Academy students. At Baldwin High School, Career Academies began in the mid 1980s. Table 1 summarizes some of the key demographics and outcome data of the two Career Academies in 1997–1998.

Medical Academy

The Medical Academy began as an experimental program bridging classroom lessons with real-life experience. Patricia Clark, an English teacher at Baldwin High School, founded the program and was involved in its implementation for 15 years. She and a devoted team of teachers spent countless hours working to increase the number of inner-city students pursuing careers in health, medicine, the life sciences, and biotechnology. Since its inception, the focus of the Medical Academy has been to serve all students, but especially those with high potential. The goal of the Academy has been to interest students in health and bioscience careers and to provide them with the breadth and depth of educational experiences they need to be well prepared for high quality health–bioscience careers, for postsecondary education, and for active and healthy citizenship.

³The educational consultant was a retired CEO from a large computer corporation. He became interested in the Career Academies at Baldwin High School and devoted much time and material resources to the school. He placed particular emphasis on bringing computer technology to the academies and to the school at large. His greater role was not only to incorporate technology but to bridge business partnerships with the school, creating unique bonds that brought resources as well as adult mentors to academy students.

TABLE 1
 Characteristics of the Medical Academy and Graphics Academy in 1997–1998

	<i>Medical Academy</i>	<i>Graphics Academy</i>
School structure	School-within-school	School-within-school
Grades	10–12 grades and some in 9th	10–12 grades
Enrollment	Voluntary enrollment with high emphasis on recruiting at-risk African American and Latino males.	Voluntary enrollment with a high emphasis on recruiting already high-achieving math students.
Student population	267 students 55% African American 32% Asian 10% Latino 3% White	127 Students 25% African American 56% Asian 9% Latino 10% White
Gender		
Male	31%	63%
Female	69%	37%
Limited English Proficient	None	None
Socioeconomic Status	Very low income	Mostly all low-income and a few middle to upper-income African American and White students.
Graduation and college rates		
Graduation	93%	100%
College	98%	100%
4-year	79%	98%
2-year	19%	2%

Medical Academy teachers have made a strong effort to recruit a racially heterogeneous student population. The 267 students enrolled in the Medical Academy during 1996–1997 more closely reflected the racial makeup of the overall student population at Baldwin High School than did those enrolled in the Graphics Academy, as discussed next. The Academy was more than two thirds female (69% vs. 31%). According to Medical Academy staff and research report evaluations, the student body had always been over 60% female. In addition, the academy encouraged low-, middle-, and high-achieving students to participate in the program.

Medical Academy students took interrelated academic and lab classes during 80% of their school day for 3 or 4 years. Students typically joined the program in the ninth or tenth grade. The Medical Academy relied heavily on team teaching to link curriculum along interdisciplinary lines. All academy students participated in related work-site learning, including volunteer experience, career explorations, clinical rotations, summer and senior year internships, career portfolios, senior projects, and demonstrations of mastery. In addition, the program provided career mentors and postsecondary student coaches, frequent contact between school and

home, tutors and workshop support services, and special social and award activities highlighting students' success. Sense of community was a major emphasis of the program.

The graduating class of 1997 was remarkably successful: 93% of the 267 students graduated (the remaining 7% left the school district or enrolled in another high school). Of those who graduated, 98% enrolled in college—79% in 4-year universities and 19% in 2-year community colleges. Two students chose not to attend college (an Asian male decided to pursue a military career and a Latina female decided to work to help her family). Similar results were found among Graphic Academy students for the 2 academic years of this study.

Graphics Academy

The Graphics Academy specialized in computer-assisted graphics technology and had a reputation for catering to students with a strong math and science background. It sought to prepare students to pursue careers in computer technology and to succeed in college. During their 3 years in the Graphics Academy, students took a variety of classes in physics, calculus, and chemistry. In the summer following their junior year, they participated in paid internships linked to their studies.

The Graphics Academy enrollment fluctuated from 100 to 150 students. During the 1996–1997 academic year, the academy enrolled 127 students; these students were 56% Asian, 25% African American, 10% White, and 9% Latino. The racial and ethnic makeup of the academy did not reflect the larger school profile. Although program recruitment occasionally took place at other schools in the district, most students were recruited within the ninth-grade AP pathway. These students were predominantly Asian and middle-class African American and White students. Given the focus on students with prior strengths in math and physical sciences, it is notable that enrollment was nearly two-thirds male (63% male vs. 37% female). The academy director made a strong effort to recruit a more diverse student body, but the emphasis was still on enrolling high-achieving students. Neither the Medical Academy nor the Graphics Academy enrolled any students who were classified as LEP, as the students were expected to be able to read and write fluently in English. Graphics Academy students, like those in the Medical Academy, continually showed high levels of success. The Academy had a 100% graduation rate during the 1996–1997 school year; nearly all graduates enrolled in top 4-year universities.

Academy Recruitment Differences

The different approaches to recruitment in the two Career Academies reflected two very different educational philosophies. From its inception, the Medical

Academy was committed to the belief that all students could achieve to high standards, and made a special effort to include those students who were not already succeeding in a traditional education setting. The Graphics Academy began as an honors–AP program and continued to target those students who were already high achieving, especially those with demonstrated success in mathematics. Although the Medical Academy accepted high-achieving students, its primary target population included “high-potential” students (students who had not yet demonstrated their academic excellence).

The Academy developed an excellent reputation for hands-on science and good teaching and had no trouble recruiting talented students. However, they had to work much harder to attract high-potential versus high-achieving students and made a special effort to attract disenchanted students. Each year, the Medical Academy Director would go through the records of all ninth graders and look for those who were in trouble academically. Students who had failed one or more classes, who had poor attendance, or low test scores would receive special invitations to join the Medical Academy. Applications were mailed to homes and students were invited to Academy Orientation Sessions. In many cases, the director made home visits and attended community and local faith-based activities to talk with parents about what joining the Academy might mean for their sons or daughters. The director involved the Medical Academy’s business and postsecondary partners in the recruitment process as well.

The Medical Academy also developed contacts among reporters at racial and ethnic media publications, making certain that word of the Academy and its application process was spread. The director also worked closely with ninth-grade teachers and counselors to identify potential Academy students. Medical Academy teachers and students made presentations in all ninth-grade science classes, inviting all interested students to sign up. Current and former Medical Academy students were sometimes the very best ambassadors for the program. Those students who applied were invited to visit Academy classes and to bring their parents/supporting adults to informational meetings about the Academy experience.

Each year, and with a different approach, the Graphics Academy director made presentations in ninth-grade Algebra and Geometry classes, hoping to attract students with strong math skills and records of academic success. The head guidance counselor would supply the Graphics Academy director with a list of math students with the highest test scores; these students would be invited to participate in the Graphics Academy. The director would also make presentations to parent groups, but would do this exclusively in feeder schools with greater numbers of academically successful students. The AP English and History teachers also helped with recruitment for the Graphics Academy, and written recruitment materials highlighted the close tie between Baldwin High School’s AP program and the Graphics Academy. The Graphics Academy also utilized industry partners in its

recruitment efforts; one partner made a special effort to send professionals of color to help with classroom presentations.

These two approaches to recruitment resulted in two very different Academy classes. The Medical Academy worked to reflect the diversity of the school and to include the whole range of student achievement. As a result, at least two thirds of the Medical Academy entering class consisted of underachieving students. The Graphics Academy recruited only those students who were already academically successful and who were enrolled in geometry (or higher levels of math) as entering tenth graders. As a result, the entering Graphics Academy class typically included a far larger percentage of Asian and White students than existed in the school population as a whole.

Institutional Mechanisms and Academy Cultures

Each Academy operated as a “school-within-a-school,” but there were clear differences in curriculum design. Students in the Medical Academy enrolled in Academy English, Academy History, and two Academy Science classes each year. In the tenth grade, Academy students enrolled in Medical Academy English II, Medical Academy World Cultures, Medical Academy Biology, and Medical Academy Bio Lab. In the eleventh grade, they enrolled in Medical Academy English III, Medical Academy U. S. History, Medical Academy Physiology, and Medical Academy Physiology Lab. Finally, in the twelfth grade, students enrolled in Medical Academy English IV, Medical Academy Government and Economics, Medical Academy Chemistry, and Medical Academy Advanced Biology or Physics. Medical Academy students also took math, foreign language, and electives in the general school program.

On the other hand, the Graphics Academy design was more integrated along the Honors–AP pathway. In the tenth grade, the Graphics Academy curriculum structure included Honors English II or Graphics Academy English II, Honors World Cultures or Academy World Cultures, Graphics Academy Physics I, and Graphics Academy Descriptive Geometry. In the eleventh grade, Graphics Academy students enrolled in AP English III or Graphics Academy English III, AP U. S. History or Graphics Academy U. S. History, and Graphics Academy Physics II (Honors). In the twelfth grade, they enrolled in AP English IV or Graphics Academy English IV, AP Government–Economics or Graphics Academy Government–Economics, and Graphics Academy Physics III AP. Graphics Academy students also took math, foreign language, and electives in the general school program.

Medical Academy teachers met regularly to integrate curriculum around health and bioscience themes and to develop a series of integrated Medical Academy student projects and learning experiences. In addition, the Medical Academy staff

met weekly to discuss and monitor student progress. Although the Graphics Academy teachers also held students to high standards, they did not meet regularly as a team and there was little or no effort made to integrate graphic themes into Academy English and History classes, nor to monitor student success.

Teachers reported that the goal of both Career Academies was to encourage school success, not to push youth into particular career paths. The two Career Academies aimed to prepare at-risk youth for postsecondary education through various social and academic support systems. An academy English teacher, for instance, found the model significant in that “kids don’t feel like they have to go out and be doctors, but instead go to college and succeed.” At-risk youth were given the opportunity to pursue higher education rather than simply joining the work force after high school.

As noted, Career Academies are intimate schools-within-a-school that focus on career themes along with important partnerships with employers, the community, and higher education (Stern et al., 1998). The smaller school climate and focus on a common theme enable teachers to concentrate on students and their individual needs, and helps create an academic culture wherein students actively engage and succeed in school. As noted by an academy science teacher, students need to have a “culture that they share with their peers that validates doing well in school.” A rich multicultural curriculum and pedagogy enrich the familial atmosphere. The academy teachers work long hours to provide this type of school climate.

Despite differences in enrollment (the Medical Academy was more racially integrated than the Graphics Academy) and career focus, both Career Academies sought to treat students as important and valuable individuals. The academies engendered a close sense of community. Many students characterized their Career Academy as a “family.” Baldwin High School’s educational consultant spoke of the strong relationships formed:

I really don’t like and I am tired of the expression ‘It takes a village,’ but there is a village in the academy. It is much more like a family. And the school is too big to be a close family, but the academies are part of the family.

Teachers reported that students flourished within this setting.

The academic culture of these two programs influenced student engagement in school, creating a rich learning environment whereby students encouraged one another to excel. As one academy English teacher stated,

These kids have a lot of classes together and they see the quality of work, that is good, [and] they are proud of it. The students like the projects. They tell other students, ‘I really like your project,’ ‘How did you do that?’ They encourage one another. It’s here. It’s growing. It’s happening.

Students felt comfortable in a setting where they belonged socially and academically. “Everyone feels good when there is a sense of belonging,” reported another academy teacher. Likewise, the Graphics Academy Director stated that the academic structure was so strong that even the lower achieving students felt out of place and began to work harder. This process resulted in close friendship bonds:

There’s such a seriousness in this academy about academics and the kids are very motivated, they work really hard. If a lot of kids who have the ability, but aren’t doing well, are put into a situation where all of a sudden they look around and everyone’s working really hard, well, they might look darn silly and then friendships spring up and they all begin to work hard and they form study groups together.

Unlike within the general school setting, academy teachers were key players in the creation of the academic environment.

The academic culture of Career Academies was linked with specific structural characteristics. For example, the majority of administrators, adults, and students interviewed expressed that the small academy setting was key. Reporting on how the smaller school-within-a-school structure encouraged a strong community of learners, the educational consultant reported,

I can see the difference [from nonacademy students] in that the academy students have a smaller group. There were adults that cared about them. They cared about each other. They got to know each other, there was more of an acceptance of academic performance being an okay peer thing. They worked on projects that were of interest to them. I realized that everything did not make sense in the main school, but it structurally made sense in the academy. It was not 100% successful, for sure, but it made sense with the academy. And it is often the personality of the people in the academy that encourages students to stay and go through your rough spots and stick it out. And I think that both of the academy directors, who have incredibly different styles, are absolutely dedicated to that.

The school-within-a-school structure allowed for stronger social relationships among and between students and teachers. Although both academy directors and teachers exhibited different styles in the activation of such relationships, the end product in both cases was a stronger sense of community than in the larger high school setting. In turn, this created a strong sense of optimism among Career Academy students.

CREATING OPTIMISM AMONG CAREER ACADEMY STUDENTS

The academies enabled students to view themselves optimistically, as people with high potential. They felt close bonds with one another and their teachers. These relationships transcended race and ethnicity. As reported by academy teachers, academy students worked well with one another as they strove to succeed. Ana, an academy Junior, said that “The Medical Academy is like a group of people that are working together and if one is not doing good, the other helps to make it better, to make everything better.” Academy students expressed feelings of affinity and emphasized that students come together around common interests and as future professionals. “We are like a community,” expressed an academy student, “because in the Medical Academy, they are always telling us to work together, and more things are going on for us to unite. We help each other to fulfill our goals in school and go into health.” The Career Academies’ various support systems create a community of youth united to achieve common career goals.

Academy students have suggested that school context is significant in the development of their optimism and motivation. Chica, a Graphics Academy student, stated that her motivation “comes from within, and then outside factors affect how your personality is.” She further explained that the “school setting is the most important, because that is something that adults can control and the home life you can’t really control.” Students articulated an essential link between school context and academic engagement. They viewed the entire school context, including the teachers, exposure to professions, and college-preparatory curriculum as essential to creating their sense of optimism. Nikki, also a Graphics Academy student, said

The academy makes you do good and the teachers come and tell you and tell you that anything is possible. There’s a lot there to make you wanna do good. The academy is there to support you when you need it cause without the support thing you wouldn’t be able to do anything without the support.

Similarly, Cass, a Medical Academy student, suggested that “the academies give you better information on colleges. We all know more than the other students on how to get scholarships because our teachers inform us.”

Students were exposed to different careers through field trips, internships, and mentoring. This may have contributed to and solidified their desire to aspire for professional careers and achieve them. For example, Ana, a Medical Academy student, explained that they “get to experience the different careers in health, have mentors, and have more real goals because we see it and they bring it to us.” Likewise, Marisol, also a Medical Academy student, stated that her summer internship experience helped her firm up her goal of becoming a medical doctor:

During the summer of 1997, I had the honor of being a health intern in a well known medical hospital. I worked side by side with real doctors. This has forever inspired and encouraged me to pursue my life long career choice ... I observed the doctors' professional expertise as they had to make vital life saving decisions. Regrettably, I even witnessed a death while I was an intern in the emergency room. I have a strong academic background in science and, most importantly, I have hands on experience in the world of health.

The academy curriculum, coupled with internship experience, allowed students to experience first hand the importance of academic and professional skills.

The Graphics Academy students also agreed that internships helped them understand the path to becoming a professional in that field. Joe, for instance, stated that "summer internships are really helpful. The [academy] gets you jobs in the career and that helps you out to understand the work better." Early exposure to careers, coupled with professional mentors, enabled students to observe first hand what it entailed to become a doctor or an engineer.

Early career exposure allowed some students to solidify their professional interests. For others, it provided the opportunity to learn that a particular career was not right for them. Instead of spending many years obtaining credentials for certain professions, Cass quickly concluded that after dissecting animals in class, a medical career was not for her. "If you want to be in health," she comments, "the [Medical] Academy gives you many benefits, but since I've joined the academy, I totally chose a different career. After dissecting and everything, I realized I really didn't want to be a doctor." Both outcomes are useful and positive. Whether students decide to pursue a career academy profession or not, they are exposed to networks, in and out of school, that are necessary for their social mobility.

Both Graphics and Medical Academy students expressed the importance of relevant and rigorous curriculum. Iyana, for instance, observed that career-related and college preparatory courses prepared students for college: "We learn things in class, hands on and our college prep courses prepare us for college. Our geometry book is the same book they use at Cal Berkeley, and the physics book, too." To these students, challenging courses translated into college matriculation. John, a student in the Graphics Academy, understood the relation between challenging curriculum and college:

If students just take dance, cooking, and PE, and no math, science, or other challenging classes, it's unfortunate. They are not going to get into college. It's gonna be easier for someone who had harder classes to get into college—and a better college—easier.

Most important, academy students realized what it was they wanted to accomplish professionally and familiarized themselves with how to obtain their educational

and career goals. Academy students expected to graduate from high school and go on to college and graduate school. They were informed and active agents in this process. Consider Linda's specific school and career plans:

When I graduate from [Baldwin High School's Medical Academy], I plan on going to either UCLA or UC San Francisco. There, I will major in premedicine or biology. After receiving my bachelor's degree in 4 years, I will then either stay or transfer to UC San Francisco's medical school. I will stay there for 4 years then I will do 4 more years in residency for becoming a pediatrician. After becoming a doctor, I will look for a job in a hospital or clinic. To me, these plans are very realistic.

Linda had her life planned out. She not only had high expectations, but could articulate the process by which she would prepare for a career in health.

Academy students recognized a relevant and rigorous curriculum as a prerequisite to postsecondary education. They also benefited from career-centered pedagogy in and out of the classroom. In this respect, academy students, unlike those in the general school pathway, acquired a solid foundation to pursue their college and career goals. They affirmed their professional expectations and remained optimistic despite adversity.

MEDIATING DISTINCT PEER RELATIONS AMONG ACADEMY STUDENTS

Career Academy students shared the view that they belonged to a community of learners who supported, instead of competed against, one another. They characterized their learning environment as strong and supportive, an environment that circumvented the kind of racial and ethnic divisions that were present in the larger school setting. They also reported that the racial and ethnic diversity of the programs encouraged intergroup relationships. Students became friends, colleagues, and in many cases, dated individuals of different racial and ethnic backgrounds. For instance, a Medical Academy student said, "You know, stereotypes we might have had are not true because we get to know people better." Similarly, another Medical Academy student reported, "little by little people begin to change. Stereotypes begin to change." The Medical Academy made the initial step in forging racial and ethnic integration within the school. Graphics Academy students, however, did not have the same level of peer interaction across race and ethnicity.

Students in the Graphics Academy were part of a small and exclusive group of high achievers. These students made little effort to form relationships with students in other academic communities, such as those in other Career Academies who were not seen as high achieving, those within the Graphics Academy that

were less high achieving, and especially low-achieving students within the general high school population. Many of the Graphics Academy students suggested that this was because they felt that others did not share the same social and academic values. They exclusively befriended other high achievers that were predominantly Asian or White. Bill, for example, had no interest in associating with other Latinos or African Americans. He explained that his friends were “mostly Asian students, because they are more [his] type unlike the guys that hang out by the gym ... never go to class, have low grades and tend to be different.” Students in the Graphics Academy had little desire to associate with students in the bottom academic tracks. Some students explained their isolation in terms of demographics. Ricardo, for instance, asserted that he had no choice in who he had relationships with because “mostly all are Asians” in his academic program. The academy was distinct from the rest of the school in its concentration of high-achieving students, recruited by the Graphics Academy director. Despite a lesser degree of racial and ethnic inclusion in the Graphics Academy, students reported high levels of peer bonding and changing patterns of student interactions.

In general, Career Academy students were cognizant of the changes they experienced concerning racial and ethnic stereotypes. Studies have shown that difference and inclusion, associated with a strong social scaffolding process, mediate larger racial and ethnic divisions in school and in society (Conchas, 1999, 2001). Perhaps in the world of work or in the university setting, these students will be better able to work with individuals of different backgrounds. Although these students acknowledged racial and ethnic differences, they worked together as a team toward common academic goals. They were fully aware of the racial and ethnic structure at their school, yet created and benefited from their own “safe space,” wherein they felt a strong sense of community as high achievers with common college and career goals (see also Fine et al., 1998).

KEY FINDINGS AND POLICY RECOMMENDATIONS

This case study explicates the importance of understanding diverse Career Academy effects on the school experiences of urban youth, and suggests possibilities for reform. Consistent with past research on Career Academies, this study reveals important outcomes. In comparison to the general Baldwin High School student population, Career Academy students demonstrate higher graduation rates, higher college entrance rates, and greater optimism. They are exposed to important career linkages and healthy school-within-school settings. However, academies have the potential to create distinct peer relations—both those that foster an appreciation of diversity and those that do not. This case study delineates key findings and offers thoughts on the policy lessons and implications of this study:

1. Smaller and more intimate school-within-school structures may be significant in encouraging student optimism and school success: The smaller school-within-a-school structure of Career Academies make for more personalized learning communities within racially divided urban high schools where failure is widespread. Students in these academies enrolled for a 3-year span and became part of an intimate and rigorous learning community where they learned the power of working together. Students in both the Graphics and Medical Academy reported high levels of satisfaction as members of a familial atmosphere and identified this atmosphere as the most important aspect of the Academy. Students formed strong bonds with one another and with their teachers. The faculty also reported high levels of camaraderie.

2. School effects may contribute to differing patterns of school adaptation: Students experienced distinct urban school adaptation patterns, depending on whether they were enrolled in the academies, and, if they were, which academy they were enrolled in. Data for this study revealed that some students, for instance, felt alienated and estranged from the larger high school culture. These students were not part of an academic track that stressed high expectations. Instead, they were left to fend for themselves in a very impersonal setting. At the other extreme, Graphics Academy students experienced a very rigorous and strong school support system that stressed individuality and high academic standards. These students practiced self-isolation and combated stress in a competitive academic culture. In contrast, Medical Academy students evidenced a healthy and team-oriented academic culture. In this respect, school effects and academic cultures mediated the variations in school adaptation among and between urban high-school students. This level of adaptation, in turn, was strongly associated with concrete measures of school achievement.

3. Some institutional arrangements may be more effective at creating a supportive cross-ethnic community of learners: Data from this study clearly revealed that certain academic structures promoted cohesion and tolerance across racial lines, whereas others did not. Although Graphics Academy students showed some level of cohesion, interracial bonding was minimal, given their more homogeneous racial composition. The students in this program got along well, but were unable to successfully navigate between their academic enclave and the larger school community. Two resulting concerns were continued conflict between Asian and African American students and more vocal resentment among African American teachers with regard to both the Graphics Academy and the AP program. Many students and teachers of color expressed strong feelings about what they perceived as special White and Asian privilege at Baldwin High School. Racial and ethnic hostility was a major concern. Certain programs and policies, such as tracking, perpetuated this hostility.

The Medical Academy, on the other hand, structured a positive learning environment that began to bind students and teachers together across race, gender, and

class lines. Students strove toward a common goal, helping one another in the process. The academy structure revolved around common visions and goals that fostered cooperation among teachers and students. This supportive structure promoted a greater sense of social belonging and academic success. The program's strong support systems became the bridge that linked minority youth with adults and other high-achieving peers. The racially integrated culture in the Medical Academy served to overcome the racial animosity and intolerance evident among Latino, Asian American, and African American peer groups in the larger school setting.

4. Some institutional arrangements may induce students of varying academic abilities into a culture of academic achievement: Although the Graphics Academy model catered to a majority of high-achieving students, the Medical Academy attempted to recruit and construct success for "at-risk" (predominantly Latino and African American) youth. Although the Graphics Academy was highly successful, it was unable to include students of varying academic abilities. The Medical Academy structure and philosophy differed in that they accepted and tailored their curriculum and pedagogy to reflect the diverse needs of the students.

The key factor in the Career Academy culture was teachers' and students' shared goals. Students sought to become successful and gain entrance to college, whereas teachers sought to become inspiring educators and mentors. Teachers also sought to provide the relevant, rigorous, and relationship-oriented curriculum and pedagogy necessary for students' college success. The Medical Academy model and curriculum attempted to connect learning with action by specifically linking the health profession to college preparatory curriculum. This approach engendered high expectations on the part of both teachers and students. In turn, students reported positive attitudes toward schooling that further resulted in strong academic identities.

Those students who enrolled as low achievers were introduced to an academic culture based on teamwork and positive relationships in which everyone worked hard to achieve success. Thus, students helped one another to meet common goals of school success. Data from this study revealed many instances wherein students worked together and tutored one another in academy classes before and after school, and during class. Previously at-risk students were immersed in an academic culture that provided them with the tools necessary for social mobility.

CHALLENGES IN THE IMPLEMENTATION OF CAREER ACADEMIES

The findings of this study, for the most part, highlight optimism and academic success among urban youth, yet some important and noteworthy challenges remain in the successful implementation of Career Academies. Specifically, educational pol-

icy must remain critical of structural and cultural variations among Career Academies. Policy and practice must strive toward school equality—not race, class, or gender segregation.

Although some Career Academies are able to ameliorate the racial and ethnic hierarchies present in the larger United States society and culture, ideologies about racial inequality are not as easily transformed at the macrolevel. Students' and teachers' perceptions of race and the social construction of ability are greatly influenced by social phenomenon and in particular, the opportunity structure. Hence, policy and practice must address not only specific school effects, but also issues of social stratification.

Career Academies and other school-within-school programs are able to serve only small populations of students; access to various academies remain limited. Despite research showing the effectiveness of Career Academies and other smaller learning communities, there are too few programs available and too few students enrolled in smaller learning communities. Most students are part of a large, traditional high-school population. Educational policymakers and practitioners have begun to recognize the need for small learning communities. Since the tragedy at Columbine High School, there has been a noticeable increase in funding, both from government and private foundation sources, for the purpose of dividing large high schools into self-contained communities similar to Career Academies. Of equal importance is student access to these programs. As a nation, we cannot afford to further divide students within already segregated urban schools.

Career Academies need to find a balance between student (and often parent) choice, and the issue of equity in the school as a whole. Some all-academy schools have solved this by requiring that each academy reflect the larger school as a whole in terms of race, ethnicity, gender, and range of academic achievement. These schools have still allowed students to indicate their first and second choices of academies, but have placed an even greater priority on assuring diversity and balance in the selection process.

Another challenge is to design academies that are both attractive to students and that involve career pathways that range from quality entry-level to professional positions. Too often schools and districts neglect career pathways; as a result, their academies attract college-bound students only. Care must be taken that most or all academy courses are rigorous enough to meet college entrance requirements, but are also infused with the career theme and opportunities for learning experiences that engage students as problem-solvers, collaborators, and community resources. Students need opportunities for work-based learning (job shadowing, internships, field experiences) that connect to academic classes and relate to learning in school. Students need opportunities to enter into mentee relationships with caring adults in workplaces and the community and to serve as resources for industry partners.

Moreover, what works is not easily replicable. School cultures and teachers cannot be as easily replicated as specific school mechanisms. Many facets of the

school-within-school model can transfer to other school contexts, but the specific culture and teacher enthusiasm cannot be as readily modeled. In other words, educators can implement small class size, a career theme, provide mentors and internships, and other forms of support, but teacher ethos and sense of community cannot be transferred from one setting to the next. The question remains: How can schools replicate charismatic teacher leaders in distinct contexts?

At the same time, research with academy teachers has highlighted academy structure (teachers working as a team; integrating curriculum around central career themes; serving in new liaison roles with industry–postsecondary partners; developing closer relationships with students, families, and professional peers) as mediating positive changes (Kemple, 1997). Several academy directors and teachers described how the academy encouraged teacher leadership and helped boost teachers' confidence. This demonstrated change in academy teachers' sense of efficacy was one of the unanticipated findings of the longitudinal MDRC study (Kemple; Kemple & Rock, 1996; Kemple & Snipes, 2000).

Educational policymakers and practitioners need to devise institutional support systems and new pedagogical methods within schools and in larger society that embrace difference and create positive dispositions toward school success. The Career Academy structure can be viewed as one possible model for high school reform.

REFERENCES

- Bureau of the Census. (1993). *Statistical abstract of the United States*. Washington, DC: U.S. Government Printing Office.
- Cannon, D. G., & Reed, B. (1999). Career Academies: Teaming with a focus. *Contemporary Education*, 70, 48–51.
- Conchas, G. Q. (1999). *Structuring educational opportunity: Variations in urban school success among minority youth*. Unpublished doctoral dissertation, University of Michigan, Ann Arbor.
- Conchas, G. Q. (2001). Structuring failure and success: Understanding the variability in Latino school engagement. *Harvard Educational Review*, 71, 475–504.
- Davidson, A. L. (1996). *Making and molding identity in schools: Student narratives on race, gender, and academic engagement*. Albany: State University of New York Press.
- Gándara, P. (1995). *Over the ivy walls: The educational mobility of low-income Chicanos*. Albany: State University of New York Press.
- Gándara, P. (1999). Staying in the race: The challenge for Chicanos/as in higher education. In J. F. Moreno (Ed.), *The elusive quest for equality: 150 years of Chicano/Chicana education* (pp. 169–196). Cambridge, MA: Harvard Educational Review.
- Gibson, M. A. (1997). Conclusion: Complicating the immigrant/involuntary minority typology. *Anthropology and Education Quarterly*, 28, 431–454.
- Hubbard, L. (1995). *Academic achievement among minority students: The effects of institutional mechanisms and student ideology*. Unpublished doctoral dissertation, University of California, San Diego.
- Kemple, J. (1997). *Career Academies: Communities of support for students and teachers: Emerging findings from a 10-site evaluation*. New York: Manpower Demonstration Research Corporation.
- Kemple, J., & Rock, J. L. (1996). *Career Academies: Early implementation lessons from a 10-site evaluation*. New York: Manpower Demonstration Research Corporation.

- Kemple, J., & Snipes, J. (2000). *Career Academies: Impacts on students' engagement and performance in high school*. New York: Manpower Demonstration Research Corporation.
- Kopp, H., Kazis, R., & Churchill, A. (1995). *Promising practices: A study of 10 school-to-career programs*. Boston: Jobs for the Future.
- Maxwell, N. L., & Rubin, V. (1997). *The relative impact of a Career Academy on postsecondary work and education skills in urban, public high schools*. Hayward, CA: The Human Investment Research and Education Center.
- Mehan, H., Villanueva, I., Hubbard, L., & Lintz, A. (1996). *Constructing school success: The consequences of untracking low-achieving students*. New York: Cambridge University Press.
- Pedraza, R. A., Pauly, E., & Kopp, H. (1997). *Homegrown progress: The evaluation of innovative school-to-work programs*. New York: Manpower Demonstration Research Corporation.
- Stanton-Salazar, R. (1997). A social capital for understanding the socialization of ethnic minority children and youths. *Harvard Educational Review*, 67, 1–39.
- Stanton-Salazar, R. (2001). *Manufacturing hope and despair: The school and kin support networks of U. S. Mexican youth*. New York: Teachers College Press.
- Steinberg, A. (1998). *Real learning, real work: School-to-school and high school reform*. New York: Routledge.
- Stern, D., Dayton, C., & Raby, M. (1998). *Career Academies and high school reform*. University of California at Berkeley: Career Academy Support Network.
- Stern, D., Raby, M., & Dayton, C. (1992). *Career Academies: Partnerships for reconstructing American high schools*. San Francisco: Jossey-Bass.
- Wells, A. S., Hirshberg, D., Lipton, M., & Oakes, J. (1995). Building the case within its context: A constructivist approach to studying detracking reform. *Educational Researcher* 24, 18–24.
- Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed.). Thousand Oaks, CA: Sage.