

# Understanding the Role of Research Universities in Improving College Preparation and Access at Local Urban High Schools

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## Abstract

*Urban colleges and universities not only have a responsibility to engage in activities designed to improve the educational attainment of local urban youth, but also have extensive financial, human, intellectual, and organizational resources that may be directed productively toward this purpose. This article describes the multipronged approach that the University of Pennsylvania is using to improve college opportunities for students attending Philadelphia high schools. We conclude by offering lessons that other institutions may draw from this example.*

Postsecondary education is increasingly important to the nation's continued economic prosperity and global competitiveness, given the shift from an industrial economy to an information- and technology-driven economy (Advisory Committee on Student Financial Assistance 2006; Carnevale and Desrochers 2003). New jobs increasingly require at least some postsecondary education, and the educational requirements of all jobs, including those that once required no more than a high school education, have been rising. For example, 69 percent of white-collar office workers, which are the largest, fastest-growing, and among the highest-paying categories of employment, had at least some college education in 2001, up from 37 percent in 1973 (Carnevale and Desrochers 2003).

Projected demographic trends suggest that the demand for college-educated workers will continue to increase in the near future. Over the next 20 years, baby-boomers will retire from the labor force, resulting in a substantial shortage of workers, especially workers with the most education and experience (Carnevale and Desrochers 2003). Although the number of high school graduates is projected to increase between 2001–2002 and 2017–2018 (Western Interstate Commission for Higher Education 2003), this growth likely will be insufficient to meet labor market demands. Carnevale and Desrochers (2003) estimate that, in 2020, demand will exceed the supply by 20 million for workers overall and by 14 million for workers with at least some college education.

Despite the substantial need for college-educated workers, in recent years, the United States has lost ground in the educational attainment of its population. The share of the 25- to 34-year-old population that has completed a postsecondary program is now lower in the United States than in a number of other developed nations, including Norway, Netherlands, Korea, New Zealand, Denmark, and Sweden (Baum, Ma, and

Payea 2010). Moreover, within the United States, college enrollment and degree attainment rates continue to be substantially lower for students from low-income than high-income families and for Blacks and Hispanics than for Whites (Baum, Ma, and Payea 2010; NCES 2008).

Educational attainment rates are particularly low for students attending urban high schools. Raising the educational attainment of these youth is critical to the continued economic prosperity of our nation's cities. For example, using data from the 2000 Census, the Brookings Institution (2003) concludes that the city of Philadelphia faces "significant challenges in creating opportunity and prosperity for its residents." The report identifies several forces that contribute to these challenges including an aging, more decentralized, and more diverse population, as well as the low level of educational attainment of the city's population. Only 18 percent of the city's adults have attained at least a bachelor's degree, "one of the lowest levels among large U.S. cities" (Brookings Institution 2003). This level of educational attainment is substantially lower than the national average—as 26 percent of all individuals age 25 and older nationwide had this level of educational attainment (NCES 2008).

Multiple forces contribute to the low levels of educational attainment for youth in Philadelphia and other urban areas, including racism and poverty. Moreover, race and poverty interact to compound the challenges facing urban youth. For example, 44 percent of Blacks and 46 percent of Hispanics attending public elementary and secondary schools in cities are enrolled in "high-poverty" schools (that is, schools where at least 75 percent of students are eligible for free or reduced price lunch), compared with only 9 percent of Whites, 17 percent of Asian/Pacific Islanders, and 27 percent of American Indians/Alaskan Natives (NCES 2008). Compared with low-poverty schools, high-poverty schools are associated with higher rates of teacher turnover (Planty et al., 2008). Rates of "serious violent incidents" (e.g., rape or attempted rape, other sexual battery, physical attacks or fights with a weapon, and robbery) are also higher at public schools located in cities than public schools located in suburban, town, and rural locales (Planty et al. 2008).

Given these and other challenges, urban public high schools typically have few resources available for promoting the college enrollment and success of their students. Although college-related information and rigorous academic preparation are critical predictors of college enrollment and success (Perna 2006), both are less available at urban schools. Counselors at most schools—regardless of location—have little time for college counseling, given high advising loads and competing priorities (McDonough 2005; Perna et al. 2008). These challenges are magnified at urban high schools (that is, schools located in cities with a population of 250,000 or more), where the average number of students per college counselor is substantially higher than at high schools in towns with fewer than 25,000 people (392 versus 319 students) (NACAC 2007). Moreover, college counseling is just one of most counselors' responsibilities, as school counselors also engage in crisis intervention counseling, developmental counseling, scheduling, test administration, and discipline (Ballard and Murgatroyd 1999; McDonough 2005; NACAC 2007; Venezia and Kirst 2005). The

need to satisfy federal and state testing requirements associated with No Child Left Behind further redirects the attention of counselors and other school staff away from college-related activities, especially at high schools with relatively low-levels of academic achievement (Perna and Thomas 2008).

Compared with students attending schools located in suburban areas and smaller cities, students attending urban high schools also may have less access to the types of rigorous courses that increase the likelihood of enrolling and succeeding in college (Adelman 2006). In 2002–2003, only 65 percent of public high schools located in cities offered at least one “dual credit” course (that is, a course that is awarded credit by both high schools and colleges), compared with 74 percent of public high schools located in the “urban fringe,” 79 percent in towns, and 70 percent in rural areas (Walls, Setzer, and Lewis 2005). Only 53 percent of public high schools in cities offered both dual credit and Advanced Placement, compared with 63 percent of schools in the urban fringe, 57 percent in towns, and 37 percent in rural areas (Walls, Setzer, and Lewis 2005).

## **The Role of Research Universities in Improving the Attainment of Urban Youth**

Clearly more must be done to raise the educational attainment of our nation’s urban youth. One important but underexamined resource for addressing this imperative is local colleges and universities, particularly urban research universities.

Higher educational institutions, particularly research universities, may well be *the* strategic agent for the effective and democratic transformation of a society’s schooling system. The research university’s significance derives in part from its status as a particularly resource-rich and powerful local institution. More fundamentally, universities have arguably become the most influential institutions in the world. President of Harvard, Derek Bok (1990) highlighted the reasons for the growth in the importance of universities since World War II by stating

. . . all advanced nations depend increasingly on three critical elements: new discoveries, highly trained personnel, and expert knowledge. In America, universities are primarily responsible for supplying two of these three ingredients and are a major source of the third. That is why observers ranging from Harvard sociologist Daniel Bell to editorial writers from the *Washington Post* have described the modern university as the central institution in post-industrial society. (p. 3)

Moreover, while insightful, Bok did not explicitly emphasize perhaps the most critical reason for this growing leadership role. The powerful role of research universities stems not only from their tremendous prestige and power—they serve, in effect, as the reference group that defines and shapes the entire schooling system—but also from their role in educating teachers. In short, what universities do and *how* they do it, and

what they teach and *how* they teach, have enormously complex and far-reaching impacts on the entire educational system and society in general.

The idea that universities play the central role in shaping the schooling system, and, thus, advancing American democracy, is not new. More than 100 years ago, this idea inspired William Rainey Harper when he served as the first president of the University of Chicago (1892–1906). According to Harper’s theory of democracy in industrial societies, the schooling system functions as the leading societal subsystem. Harper believed that continuing development *and effective integration at all levels* (elementary to university) is required to produce significant democratic progress. Harper’s efforts reflected his messianic philosophy, activist temperament, and extraordinary organizational skills and experience, as well as his societal theory and the strategic location of the city of Chicago in the Midwestern communication system and economy. Harper worked tirelessly to make the university of that “central city” function as the dynamic hub of a highly integrated network of Midwestern schools, academies, and colleges dedicated to fulfilling democracy’s “mission to the world” (Benson, Harkavy, and Puckett, 2007).

Harper’s belief in the role of the university in improving educational attainment for all is suggested in part by the following example. When criticized by a university trustee for sponsoring a journal focused on pedagogy in precollegiate schools, Harper passionately defended such engagement and proclaimed, “As a university we are interested above all else in pedagogy” (McCaul 1959, p. 267). Harper’s devotion to pedagogy logically derived from two propositions central to his vision for the University of Chicago in particular and American universities in general.

1. “Education is the basis of all democratic progress. The problems of education are, therefore, the problems of democracy” (Harper 1905, p. 32).
2. More than any other institution, the university determines the character of the overall schooling system.

To quote rather than paraphrase Harper (1905):

Through the school system, the character of which, in spite of itself, the university determines and in a large measure controls. . . through the school system every family in this entire broad land of ours is brought into touch with the university; for from it proceeds the teachers, or the teacher’s teachers (p. 25).

Today’s leaders of research universities continue to articulate that their institutions have a direct self-interest in, as well as a responsibility to, improve the educational attainment of local urban youth. As Donald N. Langenberg, former Chancellor of the University System of Maryland, observed:

We have come to believe strongly, and elementary and secondary schools have come to believe, that they cannot reform without us. . . This is not telling them

how to do it, but both of us working together to fix what's wrong with our education systems . . . We prepare teachers for the public schools, and we admit their students. So it's our problem just as much as theirs. (Bassinger 1998, p. A28)

## **Purpose of this Article**

This article offers an example of how one institution, the University of Pennsylvania ("Penn"), currently is attempting to meet its responsibility to improve the educational attainment of local urban youth. Located in West Philadelphia, Penn is a highly selective private research university and one of eight institutions in the Ivy League. The institution enrolls about 10,000 undergraduates in four schools (that is, arts and sciences, business, engineering and applied science, and nursing) and another 10,000 students in its 12 graduate and professional schools: arts and sciences, business, communication, education, design, law, dental medicine, engineering and applied science, medicine, nursing, social policy and practice, and veterinary medicine. Penn has about 2,500 standing faculty, 1,500 associated faculty, and 2,200 academic support staff (University of Pennsylvania 2008e).

Penn's commitment to improving the local community is indicated in part by the following statement from Penn's website (University of Pennsylvania 2008d): "Penn makes a substantial investment in its surrounding neighborhood and offers ways for students and faculty to make community service part of their educational experience."

Other indicators suggest Penn's commitment to community engagement. For example, Penn is one of only 57 four-year colleges and universities, and one of only 28 private not-for-profit four-year institutions, to voluntarily participate in the Carnegie Foundation for the Advancement of Teaching's Community Engagement and Outreach and Partnership classification. Established in 2005, this elective classification is designed to provide information about institutions that engage extensively with the community via teaching and research, outreach, and other collaborations (Carnegie Foundation for the Advancement of Teaching 2008).

Several organizations have formally recognized Penn for its community engagement efforts. In 2008, the Corporation for National and Community Service awarded Penn its Presidential Award for General Community Service. One of just three institutions selected from more than 500 considered, this award honors Penn for its achievements in community service and service learning (Barbara and Edward Netter Center for Community Partnerships 2008c). In 2009, Penn ranked 1st (tied with the University of Southern California) on the list of "Savior of Our Cities: Survey of Best College and University Civic Partnerships" (Dobelle 2009a). The list identifies 25 urban colleges and universities "that have led the way in instituting policies, which have not only had positive results on their campuses, but also produce a major beneficial impact in the cities they call home" (Barbara and Edward Netter Center for Community Partnerships 2008b). The ranking is designed to reflect an institution's engagement in the local urban community as measured by impact on college enrollment for local urban youth through

partnerships with K–12 schools, as well as the history of involvement, level of financial investment, faculty and student participation, and other criteria (Dobelle 2009b).

A primary emphasis of Penn’s community engagement is its efforts to improve postsecondary preparation and access for students attending West Philadelphia high schools. In this article, we describe the types of activities in which Penn is engaged and identify the institutional resources that Penn contributes to this engagement. We conclude by identifying lessons that other colleges and universities may draw from this example.

## **One Example: The University of Pennsylvania**

Through “The Penn Compact,” President Amy Gutmann articulates the basis for the University’s efforts to improve college opportunity for students attending neighborhood public schools. Although Gutmann announced the Penn Compact at her presidential inauguration in October 2004, the principles of the Penn Compact are consistent with the institution’s historical commitments. Founded in 1740, Benjamin Franklin played a key role in the development of Penn. Whereas existing Colonial colleges sought to prepare students for the clergy, Franklin argued that Penn should focus on educating students with an “inclination joined with an ability to serve” (Best 1962, pp.150–151).

The Penn Compact has three dimensions: increasing access, integrating knowledge, and engaging locally and globally. In the following description of the Penn Compact from her inaugural address, President Amy Gutmann (2004) describes Penn’s role in American society. Gutmann argues that Penn’s role includes encouraging the full participation of “all capable and aspiring students” regardless of social class, educating the nation’s next generation of leaders, and promoting democratic values. In her words:

The Penn Compact that I propose encompasses three principles.

The first is Increased Access. The excellent education we offer must be much more accessible. We must make a Penn education available to all outstanding students of talent and high potential. In a democracy and at great Universities, diversity and excellence go together. Keeping them together requires access based on talent, not income or race or any irrelevant characteristic. . .

The second principle of our compact is about knowledge. We must better integrate knowledge from different disciplines and professional perspectives in our research and teaching. . . The most challenging problems cannot be addressed by one discipline or profession. . .

The third principle of the Penn Compact is to engage locally and globally. No one mistakes Penn for an ivory tower. And no one ever will. Through our collaborative engagement with communities all over the world, Penn is poised—and I think uniquely poised—to advance the central values of

democracy in a great urban city: life, liberty, opportunity, and mutual respect. Effective engagement of these values begins right here at home. We cherish our relations with our neighbors, relationships that have strengthened Penn academically, and they have strengthened the vitality of West Philadelphia. (Gutmann 2004).

Many on Penn's campus have long been engaged in efforts to "increase access" and "engage locally." Nonetheless, the Penn Compact has formalized the institutional commitment to these efforts and provided an umbrella for Penn's many efforts to improve educational attainment for students attending local urban schools. Taken together, Penn's efforts reflect a multipronged approach to addressing this complex and persisting societal and community problem. The institution's primary efforts in this area are (1) need-based grants; (2) college preparatory programs; (3) university-assisted community schools; (4) academically-based community services courses; and (5) a Penn-School District of Philadelphia partnership public school.

### **Need-Based Grants**

Inadequate financial resources are one major barrier to college access and opportunity (Perna 2006). Even after controlling for academic achievement, educational attainment continues to increase with social class. Within eight years of their scheduled high school graduation, about 74 percent of 1988 eighth graders in the highest quartile of math achievement and highest quartile of socioeconomic status had attained at least a bachelor's degree, compared with only 29 percent of those in the highest quartile of math achievement but lowest quartile of socioeconomic status (Baum and Ma 2007).

Financial aid is a common lever for reducing gaps based on family income in college enrollment, choice, and degree completion (Paulsen 2001). Research suggests the effectiveness of this lever, as the likelihood of enrolling in college has been shown to increase with the availability of financial aid, particularly need-based grant aid (Kane 1999; Perna and Titus 2004).

Recent trends in financial aid indicate that colleges and universities can play an important role in reducing financial barriers to college enrollment and degree attainment for low-income students. About one-third (34 percent) of undergraduates utilized federal Stafford loans to pay college costs in 2010–2011, up from 22 percent in 2000–2001 (College Board 2011). Over the past two decades, the purchasing power of the Federal Pell Grant, the primary federal need-based grant, has failed to keep pace with growth in the price of attending college. The maximum Pell grant covered only 14 percent of the average tuition, fees, and room and board at four-year private institutions in 2011–2012, about the same share as in 1993–1994 but down from 16 percent in 2001–2002 (College Board 2011). The decline was greater at public four-year institutions where the maximum Pell grant covered only 32 percent of tuition, fees, and room and board in 2011–2012, down from 42 percent in 2001–2002 (College Board 2011).

In 2010–2011, 17 percent of all undergraduate student aid was in the form of institutional grants (College Board 2011). But a substantial share of these institutional financial aid dollars are awarded to students based on criteria other than financial need. On average, at private four-year colleges and universities that admit at least 35 percent of applicants, between 25 and 30 percent of the average institutional grant in 2010–2011 was awarded based on non-need criteria (College Board 2011). At the most selective private colleges and universities (that is, institutions admitting fewer than 35 percent of applicants), only about 7 percent of institutional grants are awarded based on non-need criteria (College Board 2011).

Along with several other highly selective colleges and universities, Penn recently has increased its commitment to using institutional resources to reduce financial barriers to college access and success. The primary institutional initiative under the first part of the Penn Compact, increasing access, involves raising the availability of financial aid for low- and middle-income students. Like other Ivy League institutions (for example, Brown, Cornell, Harvard, Princeton, and Yale), elite private liberal arts colleges (for example, Amherst, Wesleyan, and Williams Colleges) and public flagship research universities (for example, Universities of Virginia, North Carolina, and Maryland), Penn has shifted its financial aid packaging policies to increase the availability of grants and reduce the loan and work burden for low- and middle-income students.

Penn has historically made student admissions decisions using “need-blind” practices and met 100 percent of students’ financial need via some combination of grants, loans, and work-study. Over the past several years, the university has increased the availability of need-based grants. Penn began by providing loan-free aid packages for students from incomes below \$60,000. Effective September 2008, loan-free aid packages were expanded to include students with incomes below \$100,000. In addition, need-based loans were reduced by 10 percent for other students. Beginning September 2009, need-based loans will be replaced with grants for all undergraduates (University of Pennsylvania 2008f).

### **College Preparatory Programs**

Recognizing that other barriers besides inadequate financial resources limit college opportunity for urban youth (Perna 2006), Penn offers several programs that are designed to improve college opportunity for students from sixth grade to adulthood. Penn’s Office of Equity and Access Programs (EAP) oversees several federally funded precollege outreach programs, including Upward Bound, Veterans Upward Bound, Talent Search, Educational Opportunity Center, and the Ronald E. McNair Post-Baccalaureate Achievement Program. Penn’s EAP also offers PENNCAP (Pennsylvania College Achievement Program), a program that is funded by a federal TRIO grant, an ACT 101 grant from the Commonwealth of Pennsylvania, and the university.

Considered together, the EAP programs provide a continuum of support from precollege through graduate and professional school. Penn’s Talent Search program provides services to 600 students from two middle schools and one high school in

West Philadelphia (Equity and Access Programs 2008). Program activities are designed to provide low-income and first-generation students with information about college and careers, as well as assistance with completing college enrollment requirements. Penn's Upward Bound Program also is designed to increase college enrollment and graduation rates for low-income and first-generation-college students. At any one time, about 100 students attending seven Philadelphia public high schools participate in the program (Equity and Access Programs 2008). The year-round program includes SAT and ACT preparation, college visits, and other activities designed to prepare students to enroll and succeed in a four-year college or university. PENNCAP offers academic and personal counseling and advising, social and cultural activities, and other support services to low-income and educationally disadvantaged Penn undergraduates from their freshmen through senior years. Program activities include a four-week Pre-Freshman Program.

Each year, the Educational Opportunity Center (EOC) offers counseling, seminars, and other assistance to about 1,000 West Philadelphia residents age 19 and older. The EOC offers many activities that are related directly to college-related processes, as well as other activities designed to promote more general skill development (for example, use of the Internet). The McNair Program is designed to prepare low-income and first-generation college students, as well as students from historically underrepresented racial/ethnic minority groups, for graduate and professional school. Program activities include undergraduate research experiences, academic workshops, graduate school fairs, and GRE preparation.

Penn also participates in other programs designed to increase the enrollment of academically talented low-income students. QuestBridge, a non-profit organization, solicits applications from students and then identifies a pool of applicants, based on academic and financial criteria, from which Penn and other partner institutions may select. Like the other 25 "partner" colleges and universities, Penn provides selected students with a scholarship covering four years of tuition, fees, and room and board (QuestBridge 2009). In 2009, Penn became the first Ivy League institution to become a partner with the Posse Foundation. As a partner, Penn will work with the Posse Foundation to identify 10 students attending high schools in Miami, Florida, to attend Penn in a "posse" and will provide scholarships that cover students' full-tuition for four years. Posse provides support to selected students during their senior year of high school and after students enroll in college.

### **University-Assisted Community Schools**

Penn also seeks to promote the educational attainment of students attending local urban high schools through its University-Assisted Community Schools initiative. Under the leadership of Penn's Barbara and Edward Netter Center for Community Partnerships and with the support of West Philadelphia schools and community partners, this initiative is designed to transform schools into centers for community engagement, service, and activity that improve "both the quality of life and the quality of learning of children in urban neighborhoods" (Barbara and Edward Netter Center

for Community Partnerships 2008c). These university-assisted community schools are designed to engage both participating public schools and their students as well as the university in ways that address “educational, social service, health, and recreational needs” of the community (Barbara and Edward Netter Center for Community Partnerships 2008c).

The Netter Center oversees several programs within these university-assisted community schools that are designed to improve the educational attainment of urban youth. The College Access and Career Readiness Program provides about 90 students at two public high schools with activities that are designed to increase awareness of and preparation for college and careers. Students in the program participate in a paid internship at their high school, the University of Pennsylvania’s Health System, Penn’s campus, or other local businesses; after-school programming designed to develop students’ life, workforce, and academic skills; and a summer institute for rising seniors. The program also includes activities to involve parents.

A second program, Moelis Access Science, is designed to enhance teaching and learning in science, technology, and mathematics (STEM) for K–12 students, as well as undergraduate and graduate students. Supported by the Netter Center and other faculty from Penn’s School of Arts and Sciences and School of Engineering and Applied Science, the program promotes the professional development of the School District of Philadelphia’s math and science teachers.

The university-wide literacy tutoring program, a third program offered through the university-assisted community schools initiative, is designed to maximize the contribution of undergraduate student tutors to improving literacy. Focusing on three local public schools, the program provides training to undergraduate students and includes efforts to measure the effects of tutoring on literacy.

The Netter Center also coordinates several other after-school programs that are designed to improve educational attainment for students attending university-assisted community schools. For example, through the After School Academic Enrichment program, high school staff, paid program staff, and Penn tutors provide academic enrichment and other support to students. Through the K-8 project-based after-school program, Penn volunteers and work-study students, paid program staff, and other volunteers provide academic enrichment and recreational activities to students.

Although not yet comprehensively evaluated, several indicators suggest that the university-assisted community schools may be helping to promote students’ educational attainment. An examination of available data suggests that the establishment of university-assisted partnership schools may be associated with improvements in scores on the Pennsylvania System of School Assessment (PSSA) for 5th and 8th graders, the progress of one high school in meeting requirements for adequate yearly progress as specified by No Child Left Behind, and improvements in math and science teaching and learning, as well as increased numbers of students applying for college admission, federal financial aid, and other scholarships (Netter

Center for Community Partnerships n.d.). Penn's partnership with one local high school (Sayre) has been recognized by several awards, including the School District of Philadelphia's "Best Practice for Effective Community Partnership Award" in May 2008 and the Coalition for Community Schools' National Award for Excellence in June 2007.

### **Academically Based Community Service Courses**

One structure for encouraging the involvement of students and faculty in university-assisted community schools and other initiatives is academically based community service (ABCS) courses. Offered under the leadership of Penn's Netter Center for Community Partnerships, ABCS courses are designed to provide "hands-on, real-world problem solving" opportunities and "help students become active, participating citizens of a democratic society" (Barbara and Edward Netter Center for Community Partnerships 2008a). An ABCS course is defined as a course that

1. is service rooted in and intrinsically linked to teaching and research;
2. encompasses problem-oriented research and teaching and service learning emphasizing student and faculty reflection on the service experience;
3. aims to bring about structural community improvement including effective public schools, neighborhood development, and community organizations; [and]
4. reaffirms Ben Franklin's belief that: "The great Aim and End of all Learning. . ." is service to society. (Barbara and Edward Netter Center for Community Partnerships 2008a).

The Netter Center reports that, since 1992, more than 160 ABCS courses have been offered across twenty-one departments and in eight of Penn's twelve schools, focusing on topics related to education, the environment, health, and arts in West Philadelphia. Several of these courses are intended to improve the availability of high-quality educational opportunities in West Philadelphia. For example, one course is designed to help plan curricular programs in a new West Philadelphia High School projected to open in 2011. Others involve observation and participation in Philadelphia public schools in order to develop activities to improve students' college-readiness, understand theory and practice pertaining to tutoring, and enhance teaching and learning of particular subject areas including science and social studies, American literature and history, and 9th grade algebra.

### **Penn-School District of Philadelphia Partnership School**

Opened with kindergarten and first grade in September 2001 and grades K–6 in September 2002, the Sadie Tanner Mossell Alexander-University of Pennsylvania Partnership School is a public elementary school located in a new building only a few blocks from campus in West Philadelphia. The Penn Alexander School reflects a partnership formalized in June 1998 between the University of Pennsylvania, the

School District of Philadelphia, and the Philadelphia Federation of Teachers (School District of Philadelphia 2008). The Penn Alexander School serves the diverse population of children living in the area, including students from more than 17 countries (University of Pennsylvania 2008c).

Penn supports the Penn Alexander School with both academic and financial contributions (University of Pennsylvania 2008a). Faculty, staff, and students at the University's Graduate School of Education worked with teachers, parents, and other members of the local community to design the school to meet students' educational and developmental needs (University of Pennsylvania 2008c). Faculty, staff, and students from across the Penn campus also contribute research and guidance to the development of the school's curriculum, teacher preparation, and pedagogy and increase the availability of educational resources by serving as student teachers, tutors, and mentors (University of Pennsylvania 2008c). On its website, the School District of Philadelphia (2008) publicly acknowledges support for the Penn Alexander School from numerous Penn schools and departments including the Department of Music, School of Social Policy and Practice, School of Dental Medicine, Annenberg Center, School of Medicine, University Museum, School of Nursing, Law School, bookstore, radio station, Department of Recreation, Barbara and Edward Netter Center for Community Partnerships, and Office of Government and Community Affairs. In terms of financial contributions, Penn "leases the land to the School District of Philadelphia for \$1 per year" and provides support for operating expenses through a 10-year renewable term at a rate of \$1,000 per student (University of Pennsylvania 2008c).

The success of the university's involvement in the Penn Alexander School is suggested by several indicators. For example, the National Association of Independent Colleges and Universities labels the Penn Alexander School as a "gold standard" for its incorporation of research-based educational strategies (School District of Philadelphia 2008). Penn also reports that 82 percent of graduating 8th graders are admitted to the city's selective high schools (University of Pennsylvania 2008g). The university's financial support likely contributes to the ability of the school to maintain small class sizes and low student-teacher ratios (23:1 for grades 1–8) (School District of Philadelphia 2008).

## **Lessons to Be Learned from Penn's Efforts to Improve College Opportunities for Local Urban Youth**

To date, none of these programs have been rigorously or comprehensively evaluated. Nonetheless, a review of these initiatives suggests several lessons and insights for other institutions that are seeking to improve college opportunity for students attending local urban schools.

First, the magnitude of the challenges that are associated with increasing the representation of students from local urban high schools on Penn's campus (and the

campuses of other highly selective institutions) is substantial. Even with the Penn Compact and other efforts, students from low-income families remain underrepresented. In 2005–2006, only 9 percent of Penn’s undergraduates received Pell grants, only 6 percent came from families with incomes below \$30,000, and 15 percent came from families with incomes below \$60,000 (Institute for College Access and Success 2008). Pell grant recipients represent a similarly low percentage of undergraduates at other elite universities (for example, 6 percent at Harvard, 8 percent at Princeton, 8 percent at Yale, 10 percent at Brown, 14 percent at Cornell) (Institute for College Access and Success 2008). In 2007–2008, only about 17 percent of dependent undergraduates attending the nation’s private not-for-profit doctoral-granting colleges and universities are from low-income families (that is, income below \$40,000), compared with 28 percent of the dependent students at public four-year nondoctoral granting institutions, 35 percent at public two-year institutions, and 54 percent at for-profit institutions (Baum, Ma, and Payea 2010). Substantially raising the representation of students attending local public high schools and other historically underrepresented groups likely requires a comprehensive and multifaceted approach.

Second, this review of Penn’s initiatives suggests that colleges and universities have a range of financial, human, and organizational resources that may be invested in improving college opportunity for urban youth. Even for an institution that enrolls relatively small numbers of low- and moderate-income students, an expansion of institutional grants requires substantial financial resources. To support the increased availability of institutional grants, Penn expects to raise spending on financial aid from \$87 million in fiscal year 2008 (FY08) to \$114 million in FY10 (Gutmann 2008). On its website, the university asserts that its undergraduate financial aid endowment has doubled since 2003 but that only 19 percent of the costs of its need-based grants are funded by endowment income. The university’s current \$3.5 billion, five-year fundraising campaign is designed to raise \$350 million for undergraduate financial aid (University of Pennsylvania 2008f).

The extent to which other institutions may be able to replicate this type of need-based aid program may be limited by several forces, including the numbers of low-income students served by an institution, the availability of institutional resources to invest in need-based aid, and an institutional commitment to award financial aid based only on financial need. Nonetheless, a review of Penn’s activities suggests that colleges and universities also have a number of nonfinancial resources that may be productively directed toward the goal of improving college opportunity for local urban youth.

One form of nonfinancial resources is “human” resources. Human resources include the efforts of work-study students and undergraduate volunteers to serve as tutors in local schools, students and faculty engaged in ABCS courses, and staff who are leading and delivering the many available programs. The investment of “human” resources, especially in the form of students participating in ABCS courses, may generate a number of benefits. According to data collected for an evaluation of ABCS courses in 2002 for the Kellogg Foundation, students who participate in ABCS courses

believe that their participation improves their capacity to behave ethically, serve as a community leader, understand urban areas and social problems, and volunteer in the neighborhood (Netter Center for Community Partnerships n.d.).

A second category of non-financial resources includes “intellectual” resources. Intellectual resources include the efforts of faculty to identify productive ABCS courses and to engage in research, often with their students, designed to identify ways to effectively improve college opportunity for urban youth. Another form of intellectual resources pertains to the efforts of staff and program leaders to apply knowledge gained through research to inform program components and delivery.

A third category of nonfinancial resources is organizational. The Barbara and Edward Netter Center for Community Partnerships offers of an institutional structure for organizing, supporting, and guiding its efforts to promote college opportunity in the local community. The mission of the Netter Center (2008d) involves “bringing to bear the broad range of human knowledge needed to solve the complex, comprehensive, and interconnected problems of the American city so that West Philadelphia, Philadelphia, the University itself, and society benefit.”

A final category of nonfinancial resources is catalytic. By articulating a commitment to increasing access and engaging locally in the Penn Compact, President Gutmann has signaled to others on Penn’s campus, and perhaps on other campuses, the importance of efforts designed to promote the educational attainment of youth attending local schools.

A third lesson to be learned from the Penn example is that, through its efforts, a college or university may promote college opportunity for students attending local urban public schools both directly and indirectly. Penn’s efforts likely directly promote college-related outcomes for students attending local public high schools who participate in these programs because each program targets at least one well-established barrier to college opportunity, namely inadequate financial resources, academic preparation, and/or knowledge and information about college (Perna 2006).

Penn’s efforts likely will improve indirectly college opportunity for urban youth, especially over the long-term. Some Penn initiatives have the potential to encourage changes in school, state, and federal policies and practices related to the education of urban youth. For example, through its partnership with the city of Philadelphia, Penn’s efforts may encourage the school district to make structural changes pertaining to instructional delivery as well as the availability of college counseling and rigorous academic coursework. The research of faculty may be used to inform changes in state policies related to testing and alignment of K–12 and higher education academic requirements and/or changes in federal policies pertaining to student financial aid.

A final type of indirect benefit to the educational attainment of urban youth may result from the involvement of Penn students in these programs. Through their engagement

in the provision of services to urban youth, Penn students likely are developing greater knowledge and understanding of the complexity and severity of challenges that currently limit educational attainment for the city's youth. Certainly some share of these students will someday assume leadership and policy-making positions that enable them to create positive changes for this population.

## **Conclusions**

Most colleges and universities offer programs designed to improve college opportunity for students from underrepresented groups. But, these efforts typically are uncoordinated and isolated from other related activities. Moreover, little rigorous research has examined the direct and indirect benefits of these efforts to the intended recipients of services, the providers of services, the campus community, or society more broadly.

Penn offers a compelling example of why and how an urban college or university may act to improve college opportunities for students attending local urban high schools. Penn has greater financial resources than most institutions to devote to addressing this problem. Nonetheless, Penn's approach suggests the potential of a college or university to address a complex societal problem like low educational attainment for urban youth at multiple levels. Specifically, through related efforts, a college or university has the opportunity to address the needs of individual students and their families; create structural changes within urban public schools; better understand the forces that contribute to and limit the success of various programmatic efforts; and identify and encourage necessary changes in federal, state, and school district policies. Through this description of Penn's efforts to promote college opportunity for local urban youth, this article also suggests the range of resources that an institution may direct toward this goal.

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