

# Pathways From Middle School to College: Examining the Impact of an Urban, Precollege Preparation Program

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## Abstract

This study is based on a 2-year evaluation of the Pathways Partnership, a precollege preparation program involving one school district, multiple colleges and universities, and several major businesses in a Midwestern metropolitan area. The week-long summer program cultivates youth leadership and the exploration of higher education through various student activities. The program also involves parents in an orientation at the beginning of the week and a graduation ceremony at its culmination, and it sponsors workshops on college choice and access for teachers in the district throughout the academic year. Through quantitative and qualitative methods we conclude that a program like Pathways has a positive effect on the academic self-efficacy and college aspirations of urban youth. Factors useful in predicting the likelihood with which urban middle school students hold postsecondary aspirations include peer norms, parental involvement, and academic self-efficacy. Our study contributes to the need for systematically derived research on precollege preparation programs and their effectiveness, and it also provides

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data and insights to promote the development of such partnerships in other interested communities.

### **Keywords**

urban youth, precollege preparation, college aspirations, access to higher education

Pursuing postsecondary education is significant for a number of reasons. Not only can college graduates improve their future employment opportunities and earning potential, but they are also likely to realize significant personal, social, and intellectual growth as a result of the experience (Pascarella & Terenzini, 2005). College graduates report greater satisfaction with the quality of their lives overall, and research consistently demonstrates that the benefits they enjoy extend to their offspring and home communities as well (Porter, 2002). Given the many advantages associated with college attendance, it is important that all individuals have a viable opportunity to go.

Whether or not students choose to attend college, however, depends upon their prior educational experiences and achievements, personal aspirations and persistence, and individual life circumstances (Hossler, Schmitt, & Vesper, 1999; McDonough, 1997). As Walpole (2007) points out, the decision to go to college is affected by key factors that “begin at a young age, are cumulative, and result from many forces” (p. 2). Research clearly indicates that those students least likely to pursue higher education and complete a 4-year degree come from urban communities; are in the lowest income quartiles nationally; have parents who also did not attend college; and are African American or Hispanic (Cabrera & La Nasa, 2000b; Postsecondary Educational Opportunity, 2007; Quinn, 2007; Sokatch, 2007; Swail, 2000). Students with these demographic characteristics are often educationally at risk throughout their primary, secondary, and postsecondary experiences.

Precollege preparation programs designed to encourage, inform, and support the future educational ambitions of youth from at risk backgrounds can play a critical role in addressing their disproportionately low college going rates (Tierney, 2002; Tierney, 2005). To explore the impact of such an effort, this article presents results from a 2-year evaluation of the Pathways Partnership, a week-long summer program for low income, racial and linguistic minority middle school youth in Kansas City, Kansas. The program was designed to cultivate students’ leadership skills and facilitate their exploration of higher education. Key components of the experience for students

included the following: (a) Small group creativity development workshops led by community college faculty over four days wherein students created science, writing, art, or dance related presentations to be featured at the program's graduation ceremony; (b) presentations related to diversity, interpersonal communication, goal setting, and career preparation by local leaders; (c) large and small group team building exercises led by Pearl Rovaris-MacDonald, a graduate of the University of Kansas and recognized speaker and comedian; (d) guest speakers from the nationally known Freedom Writers who shared their personal stories and led students in a Toast for Change (Gruwell, 2006); (e) campus visits to the University of Kansas Lawrence and Edwards campuses, University of Kansas Medical Center, and Kansas City Kansas Community College; (f) mentoring and roundtable discussions about leadership with Academy Leaders, current college students who were selected to participate on the basis of their own impressive involvement and volunteerism while in college; (g) and small group advisement on preparing for college by university admissions office staff. The program also involved guardians at the beginning of the week in a 90 minute orientation about program goals, importance of college access and planning, and strategies for providing children with support and a graduation ceremony at its culmination.<sup>1</sup> Throughout the academic year, Pathways sponsored workshops on college choice and college access for teachers in the district as well. By forming a collaboration between the Kansas City Kansas Public Schools, Kansas City Kansas Community College, the University of Kansas Edwards Campus, and such corporate sponsors as AMC and Sprint in the Kansas City metropolitan area, the Pathways Partnership and its mission exemplify civic responsibility shared across institutional entities (Tierney & Jun, 2001) and affirms the belief expressed by Cabrera and La Nasa (2000b) that "intervention strategies that involve the family, the student, the community, and the school are likely to facilitate [college] access" (p. 42).

Utilizing a combination of quantitative and qualitative methods to gather data from Pathways participants and their guardians, we explore the following questions: What impact does a program like Pathways have on the academic self-efficacy and college aspirations of urban youth? What factors are useful in predicting the frequency with which urban middle school students think about their post-high school plans? Although based on just a single, week-long summer program, our study contributes to the need for systematically derived research on precollege preparation programs and their effectiveness. It also provides data and insights to promote the development of similar partnerships in other urban communities committed to preparing and equalizing opportunities for all students to pursue higher education.

## Theoretical Framework and Related Literature

The development of this study, the types of data collected, and our analysis of the data were informed by existing scholarship in the following five areas: *College choice and aspirations*, *social and cultural capital*, *family and parental involvement*, *self-efficacy*, and *precollege preparation programs*. Taken together, this research provides a view of college going as a process shaped by important individual, familial, and societal factors. It also makes evident that efforts to increase the pursuit of higher education among low income, racial, and ethnic minority groups living in urban communities take a variety of approaches with distinct objectives and effects.

### *College Choice and Aspirations*

Our study and discussion of the Pathways Partnership is premised on theories of college choice, specifically the model of college choice developed by Hossler and Gallagher (1987). Hossler and Gallagher describe a model of college choice in three distinct stages: Predisposition, search, and choice. This study focuses on the predisposition stage and considers the extent to which precollege preparation programs can foster aspirations for postsecondary education among students who might not otherwise choose to attend college. The targeted involvement of middle school youth in the Pathways Partnership is also important since Hossler et al. (1999) conclude that precollege preparation programs starting before high school are especially beneficial, as individual aspirations can be difficult to alter once they are articulated and solidified.

### *Social and Cultural Capital*

Researchers have established negative relationships between going to college and variables such as being enrolled in an urban high school, being a member of a historically marginalized racial/ethnic minority group, coming from a low-income family, and having parents who did not attend college themselves (Cabrera & La Nasa, 2000b; Quinn, 2007; Sokatch, 2007; Swail, 2000). An important factor that contributes to this negative relationship is the absence of certain kinds of capital. For example, McDonough (1997) and Lareau (1987) detail how the cultural capital some families possess negatively impacts their ability to navigate the educational system and gain the necessary understanding of the processes involved in college choice and preparation. The program detailed in our study is specifically designed as an

intervention in line with the findings of Cabrera and La Nasa (2000a), who explain that those students who have college plans in middle school have also developed the necessary cultural capital that enables them to secure requisite skills and information for college attendance. Additionally, the Pathways Project intentionally emphasizes cultural integrity, individual identity development, and community building with teachers, families, and other mentors—elements, which according to Tierney (2001), meaningfully contribute to the development of cultural capital for low-income, minority students who initially lack it.

A potentially more significant factor than demographic background and cultural capital seems to be having friends with college plans (Choy, Horn, Nunez, & Chen, 2000; Sokatch, 2007; Tierney, Colyar, & Corwin, 2003). This suggests an influence of social capital, which, according to Jarrett, Sullivan, and Watkins (2005), can be further fostered through relationships between youth and community adults sharing forms of information, assistance, exposure, and support. The program described in this study attempts to capitalize on these forms of social capital by providing opportunities for students to develop friendships with peers who are gaining similar exposure and aspire to higher education as well as by maintaining a small student-to-college student mentor ratio of three-to-one. Participants also meet with dynamic presenters at local college campuses and form connections with these community and campus leaders. A core issue examined in this study is the relationship between students' social capital and the effectiveness of the Pathways program.

### *Family and Parental Involvement*

Research indicates that students' academic experiences and postsecondary educational plans are strongly influenced by the involvement of their family. For example, parents who play active roles at home and at school have children with higher rates of academic achievement, school attendance, homework completion, graduation, and college enrollment (Tierney et al., 2003). Choy et al. (2000) find that while parental expectations alone do not affect the odds of college enrollment for low-income, minority youth, parental involvement in the form of conversations with children about school is a useful predictor. Similarly, Cabrera and La Nasa (2000a) associate parental encouragement with early college aspirations, and Hossler and Stage (1999) cite the specific importance of both parental expectations and encouragement during the initial phases of college choice. For this reason, the guardian survey and focus group questions developed for our study were designed to

elicit data on the frequency and depth of parent–child engagement about the child’s current schooling and future educational plans.

### *Self-Efficacy*

The theory of self-efficacy, which asserts that behavior is affected by one’s beliefs about how effectively one can perform a certain behavior, has its roots in Bandura’s (1977) social learning theory. Bandura’s more recent research specifically reveals a direct relationship between a child’s high self-efficacy and his/her high educational aspirations (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Zimmerman, Bandura, & Martinez-Pons, 1992). Our study of the Pathways Partnership utilizes self-efficacy as an important variable in measuring the effectiveness of the program. It was hypothesized that participation in Pathways would be associated with significant increases in students’ perceptions of self-efficacy as well as be related to their university goals. Participant’s self-efficacy is a key component of our study’s data as determined through the preprogram and postprogram surveys.

### *Precollege Preparation Programs*

The increasing diversity of precollege program characteristics has led researchers to classify the particular types of services provided. Perna (1999) identifies three main categories of early intervention programs: Those with financial assistance for college and support services, those with financial aid only, and those with support services only. The Pathways Partnership represents Perna’s third category. Coles (1999) creates an alternate typology, identifying seven different forms of precollege preparation programs. The Pathways Partnership most closely matches what Cole’s calls “educational awareness programs” that provide “campus visits and exposure to role models” in order to “help younger students understand the relevance of college” (p. 13).

Regardless of their variation, Tierney, Corwin, and Colyar (2005) assert that precollege preparation programs ought to emphasize the culture of the student, engage families, begin no later than the 9th grade, have knowledgeable, available counselors at the “core of the program,” and provide mentoring. They further identify “intellectual scaffolding” that bolsters academic skills, provides college planning information and methods, develops self-efficacy and college going aspirations, and provides strategies for socialization into the college environment as aspects of precollege preparation programs that have been determined effective in encouraging historically

underrepresented students to attend college. These characteristics are the hallmark of the Pathways Partnership and undergird our research on the effectiveness of implementing such strategies to influence youth aspirations during the predisposition stage of college choice.

## **Method and Data Sources**

Our study utilizes a mixed methods design. Quantitative data were collected in the form of pre and post surveys from participants and an initial survey completed by guardians. While these surveys also provided space for open-ended comments, the majority of the qualitative data came from focus groups conducted with students and their guardians.

### ***Participants***

During the 2 years of our study, approximately 50 students participated in the program each year, and approximately 20 students elected to return for a second year of continued involvement. Participants were all nominated by their middle school teachers who recognized their leadership potential, a characteristic defined broadly and separately from academic achievement. Thus, individual levels of student achievement varied, and evidence of students' leadership qualities was derived from a range of school-sponsored groups to illicit gang activities, for example. Because retaining initial distinctions of "positive" versus "at risk" leadership could be stigmatizing and have detrimental effects for students, no such information was retained by program leaders or available to us as researchers.

In 2007, 50 first year participants registered for the program. Of these, 50 students completed the initial survey and 43 completed the follow up survey. Forty two guardians of first year students in the program responded to our survey. In 2007 there were also 16 second year participants; 14 completed both student surveys and 13 guardians completed their survey. Seven of the second year participants engaged in the focus group discussion, along with 6 of their guardians.

All of the participants in our study were students enrolled in the same district. Information from the 2007 District Report Card showed reading achievement in the district increased from 11% of students being proficient in 1996 to 53% meeting the state standards. District-wide math achievement increased from 3% of students being proficient in 1996 to 53% meeting the standard in 2007. The district serves approximately 19,000 students, of whom 44% are African American, 35% are Hispanic, 17% are Caucasian, and 4%

**Table 1.** Pathway Partnership Participant Demographics.

	Percent (%)	Count
<b>Gender</b>		
Male	51.2	22
Female	48.8	21
<b>Race/ethnicity</b>		
African American	55.8	24
Asian American	7.0	3
Hispanic	20.9	9
Native American	2.3	1
White	20.9	9
Other	4.7	2
<b>Family status</b>		
Biological mother	83.7	36
Biological father	41.9	18
Stepparent	20.9	9
Single parent	20.9	9
Both biological parents	32.6	14
<b>Family education</b>		
High school or below	28.5	12
Some college	42.9	18
Bachelor's degree	21.4	9
Graduate degree	7.1	3

come from other ethnic groups. Seventy six percent of students qualify for free or reduced lunch, and 22% are English language learners.

School district demographics were mirrored in the backgrounds of Pathways participants. Seventy-two percent of the students in Pathways received free or reduced lunch at school. As noted in the attached tables (see Table 1), 51% were male and 49% were female; 56% were African American and 21% were Hispanic. Overall, 79% identified themselves as racial/ethnic minorities, and 71% reported having parents without bachelor's degrees. Note, the number of respondents vary by question because some surveys and survey items were incomplete.

### *Quantitative Methods*

As the main goal of the Pathways Partnership is to encourage students to succeed in school and eventually pursue postsecondary education, guardian and participant surveys were developed to focus on these areas. Survey data



from participants and their guardians were collected in 2006 and 2007. Only data from the 2007 surveys are presented in the present article, although statistical tests conducted to compare data from 2006 and 2007 were found to be statistically similar. Guardians of all participants were asked to complete a consent form and a questionnaire indicating their goals relative to the program. Guardians were also asked to provide demographic information about themselves and their child. Prior to Pathways, students completed an initial assessment indicating their goals and perceptions of self-efficacy, academic achievement, and thoughts about college. On the last day of the program, students answered similar questions on a follow-up survey. Reliability analyses were conducted on all scales and consistently demonstrated reliability above the .80 level. Initial statistical analyses including matched-pairs *t* tests and bivariate correlations were computed.

Additionally, a multiple linear regression analysis was conducted. For this analysis, five independent variables from the student postsurveys were considered: whether the student received free or reduced lunch, the guardian's perception of how much they talk about college with their child, guardians' expectations of their children with regard to college, student self-efficacy, and student perception of whether their friends are planning to attend college. The first three variables were reported by the guardians on their survey. The remaining two variables came from the student's post Pathways survey and represent student's *perception* of these factors. Guardian talk and self-efficacy were variables created from multiple responses, and reliability analyses again demonstrated reliability above the .80 level. The remaining variables were based on individual survey items. (Please refer to the survey items that are included in Appendix.)

The survey questions that were statistically analyzed in this study were all based on a Likert-type scale. Since previous research has confirmed that these ordinal scales produce results consistent with interval scales, this data is treated as continuous in the linear regression analysis. The first step was to clean the data and recode the Likert-type scale data so that items phrased negatively were reversed. Issues related to outliers and multicollinearity were analyzed and addressed.

### *Qualitative Methods*

Qualitative data were gathered from all Pathways participants and their guardians through open-ended survey questions seeking to capture their expectations of Pathways and future educational and career aspirations before the program began. An exit survey of the students also solicited comments regarding the overall effectiveness of the program and reflections upon their individual experience. In addition, participants and their guardians

who returned for a second year of involvement with Pathways in 2007 were invited to participate in focus groups at the conclusion of the academy. Participants were asked to discuss the influence of Pathways on their personal and academic achievement, their choice to return to Pathways, their future goals, and other insights related to the program. Guardians were asked similar questions about their goals for their child's future, their role in helping their child achieve those goals, and the role of schools in general and of Pathways in particular for advancing these ambitions. Guardians were asked about the changes they saw in their child's behavior and decision making over the past year as well as suggestions for improving Pathways. These data were analyzed using a constant comparative method with themes such as social and cultural capital, family involvement, self-efficacy, and programmatic objectives derived from our review of existing research.. Attention was also given to the age and developmental characteristics of participants as adolescents in the predisposition stage of college choice.

Two of the study authors were hired as external evaluators and are professors employed at the research university partner involved in Pathways. The third was a graduate student and served as a paid mentor to the program participants. These relationships to the program offered a sense of insider and outsider perspective. Further, the authors' interests and teaching experiences collectively span middle school through postsecondary education, providing a useful understanding of the transitional process of college choice. It is through these lenses that we analyze and present the data in this study.

## **Study Results**

### *Descriptive Survey Results*

Participants reported generally positive views of education and their own experiences. Before starting the program, participants believed that it was very important to graduate from high school (Mean = 3.98 on a scale of 1 to 4), get good grades (Mean = 3.84) and learn from teachers (Mean = 3.59; see Table 2). They also had a relatively high sense of self-efficacy (Mean = 4.35). Students in the program were relatively good students, with most of them earning half A's and B's in math, science, and social studies and most them earning B's in English. Before starting the program, students indicated that they intended to finish a bachelor's degree and earn a master's degree (Mean = 3.84 on a scale of 1-5).

Based on the guardian survey, we learned that, on average, guardians want their children to earn a graduate or professional degree (Mean = 5.70, on scale

**Table 2.** Prepathways Descriptive Statistics.

	Mean	Standard deviation
Importance of graduating from high school	3.98	0.14
Importance of getting good grades	3.84	0.37
Importance of learning from teachers	3.59	0.64
Self-efficacy	4.35	0.49
Post-high school plans	3.84	1.15

**Table 3.** Guardian Survey Descriptive Statistics.

Variables	Mean	Standard deviation
Desire for child's degree attainment	5.70	0.60
Expectation for child's degree attainment	5.35	1.00
Frequency guardian talk about child's future plans	3.71	0.48
Desire college so that child ...		
can get a good paying job	3.73	0.67
will learn new things	3.68	0.47
will have a good time	2.88	1.00
will keep busy	3.10	0.97
In choosing college, guardian concerned about ...		
academic reputation	3.60	0.67
affordability	3.63	0.67
athletic programs	2.60	1.17
religious affiliation	2.18	1.11

of 1-6) and they expect that their children will at least earn a bachelor's degree (Mean = 5.35; see Table 3). To facilitate this goal, guardians indicated that they talk to their children "sometimes" about future plans, college, and school (Mean = 3.71, on scale of 1-4). For guardians, the most important reason they wanted their children to go to college is "to get a good paying job" (Mean = 3.73, on scale of 1-4) and "to learn new things" (Mean = 3.79). "Having a good time" (Mean = 2.88) or "keeping busy" (Mean = 3.10) were not as important to guardians. Further, when considering which college to attend, guardians were concerned about "academic reputation" (Mean = 3.60) and "affordability" (Mean = 3.63). They were less concerned about the institution's "athletic programs" (Mean = 2.60) or "religious affiliation" (Mean = 2.18).

**Table 4.** Postpathways Descriptive Statistics.

Variables	Mean	Standard deviation
Self-efficacy	4.36	0.54
More optimistic about attending college	5.40	1.14
Think about post-high school plans	5.25	1.12
Perception that guardians encourage them to go to college	5.44	1.05
Perception that friends plan to attend college	4.93	1.20
Desire for degree attainment	4.05	1.13
Desire to go to college so that ...		
can get a good paying job	3.79	0.56
will learn new things	3.70	0.64
will have a good time	3.72	0.50
In choosing college, concerned about ...		
academic reputation	3.47	0.70
length of academic program	3.41	0.76
availability of financial aid	3.42	0.76
cost of attending	3.37	0.82
athletic programs	3.16	0.92
location	3.14	0.99
social activities	3.07	0.94

After participating in the Pathways Program, students' self-efficacy remained high (Mean = 4.36 on a scale from 1-5; see Table 4). Most indicated that they frequently thought about their plans after high school (Mean = 5.25 on a scale of 1-6) and that their guardians encouraged them to go to college (Mean = 5.44). They were less likely to report that their friends were planning on attending college (Mean = 4.93). After participating in the program, students aspired to earn a master's degree or equivalent (Mean = 4.05 on a 1-5 scale). Students reported it was important to go to college to get a good paying job (Mean = 3.79 on a 5 point scale), to have a good time (Mean = 3.72), and to learn new things (Mean = 3.70). When considering which college to attend, the most important factors were reputation of the school (Mean = 3.47 on a 1-4 scale), the length of the academic program (Mean = 3.41), financial aid availability (Mean = 3.42), and the cost of attending (Mean = 3.37). Strong athletics programs (Mean = 3.16), location (Mean = 3.14), and social activities (Mean = 3.07) were also less important considerations for the students. One of the most important results was students' self-report that their

participation in the Pathways Program made them more optimistic about eventually attending college (Mean = 5.40 on a 6 point scale).

### *Significant Relationships*

Students reported stronger college aspirations after participating in the program than at its outset, increasing from a mean of 3.71 to a mean of 4.05 (on a 1-5 scale). This difference was statistically significant ( $t = -2.471, p < .05$ ). There were no significant differences in self-efficacy before and after participation in Pathways. However, analyses reveal additional significant relationships between several variables that are of importance to this study. Specifically, guardians engaging in conversation with their children about such topics as doing well in school, their future plans, and going to college was positively associated with parents' levels of education ( $r = .351$ ) as well as guardians' expectations of their child's future educational attainment ( $r = .370$ ). The children of guardians who had such conversations expressed even stronger college aspirations by the end of the Pathways program ( $r = .357$ ) than those with less parental encouragement. Students whose guardians encouraged them to go to college indicated stronger desires for postsecondary education ( $r = .323$ ) than those whose guardians did not explicitly promote the idea. There was also a moderate, significant correlation between students who reported parental encouragement to go to college and their sense of academic self-efficacy ( $r = .468$ ).

The degree of students' self-efficacy determined at the beginning of Pathways was moderately correlated with their beliefs about the importance of school ( $r = .391$ ). This became an even more pronounced association by the end of the program ( $r = .681$ ). Students' self-efficacy was also related to frequently thinking about plans after high school in both the initial survey ( $r = .436$ ) and post survey ( $r = .509$ ). Peer-group effects were strong as well, with positive associations between students whose friends were planning on going to college and the belief that school is important ( $r = .309$ ), thinking frequently about plans after high school ( $r = .521$ ), and having high self-efficacy ( $r = .399$ ).

Our results substantiate existing research by documenting a moderate negative correlation between students receiving free or reduced lunch and students reporting that they frequently think about their plans after high school ( $r = -.35$ ). This further emphasizes the need for research on programs like Pathways that encourage students from low-income, minority backgrounds to consider higher education at the critical predisposition stage of college choice. Students in the middle grades can benefit by being equipped

**Table 5.** Linear Regression Model Predicting Frequency of Thoughts About Post-High School Plans (N = 34).

Model	Adjusted R <sup>2</sup>	df	F
Regression	0.594	5	10.655**

\*\*p < .001.

with essential social and cultural capital related to college preparation and admissions processes as they transition into high school and beyond.

Correlations were also examined between self-efficacy and grades as well as aspirations and grades. There was a significant correlation between participants’ self-efficacy by the end of the program and their grades in English ( $r = 0.338$ ). Grades in math, however, were not significantly correlated with self-efficacy. Additionally, it is interesting to note that there was a negative correlation (although weak and insignificant) between students’ university aspirations and their math grades ( $r = -.13$ ).

To further look at the important aspects of the predisposition stage of the college choice process, students’ frequency of thoughts about post-high school plans was examined as the dependent variable in a multiple linear regression analysis. The independent variables examined were: whether students received free or reduced lunch, guardians’ perceptions of how much they talked about college with their children, guardians’ expectations of their children with regard to college, students’ self-efficacy, and students’ perceptions of whether their friends were planning to attend college. The results of this regression can be found in Table 5. This model explained 59.4% of the variation in a student’s frequency of thought about post-high school plans. Overall, the model was significant ( $p < .01$ ). The best predictor of thinking about post-high school plans was perception of peer plans (Standardized Beta = .516), followed by self-efficacy (Standardized Beta = .478). There were two significant negative predictors: being on free and reduced lunch (Standardized Beta =  $-.360$ ) and guardian’s talking about the future (Standardized Beta =  $-.282$ ; see Table 6). Tests of multicollinearity did not reveal problems as tolerance levels were relatively high (all above 0.80) and VIF values were low (all below 1.20; see Table 7). Some caution needs to be used in interpreting the results, however, because the number of respondents was quite small ( $N = 34$ ).

Further analysis based on the slope coefficients of this model reveal that as self-efficacy increased by one unit on the Likert-type scale, frequency of

**Table 6.** Linear Regression for Predicting Frequency of Thoughts about Post-High School Plans.

Variable	B	SE B	Standardized beta	t
Constant	1.13	1.37		.83
Free/reduced lunch	-.96	.30	-.360	-3.16*
Expectations of guardians	.034	.14	.030	.25
Guardian talk about future	-.69	.295	-.282	-2.33*
Friends planning to attend college	.60	.135	.516	4.45*
Self-efficacy	1.08	.272	.478	3.96*

Note: (N = 34).

\*p < .05.

**Table 7.** Analysis of Multicollinearity for Linear Regression.

Independent variable	Tolerance	VIF
Free/reduced lunch	.949	1.05
Expectations of guardians	.833	1.20
Guardian talk about future	.845	1.18
Friends planning to attend college	.915	1.09
Self-efficacy	.844	1.18

thought about the future increased by 1.08 units, when all other variables were held constant. Similarly, when holding other variables constant, a one unit increase in friends planning to attend college corresponded with a .60 unit increase in frequency of thoughts about post-high school plans. Most interesting and surprising is that when all variables were held constant, a one unit increase in frequency of parental encouragement resulted in a 0.69 unit *decrease* in frequency of thought about post-high school plans. This finding is discussed later in the article.

### Qualitative Results From Guardians

When analyzing the open-ended survey responses and focus group data from the guardians, it was clear that guardians had very high hopes about what Pathways would be able to accomplish. Four major themes emerged from their responses when asked why they wanted their child to participate in the

Pathways Program. These reasons included reinforcing the importance of school, broadening their future horizons, enhancing their academic and personal skills and development, and helping them to establish positive peer and mentor relationships. Select comments relating to each of these themes are outlined below.

*Reinforcing the importance of school.* Guardians really wanted their children to understand the importance of their K-12 education. In initial surveys, guardians repeatedly expressed the hope that Pathways might serve as a means to motivate their child to take school more seriously. As one parent noted, "I want my child to gain knowledge of the importance of getting good grades, so she can go to college . . ." Similarly, another parent noted that Pathways ought to provide "a better understanding of what he needs to do to obtain his goals and hopefully to be able to better prioritize his activities." Sometimes, the guardians emphasized that they hoped Pathways would reinforce their messages about school. As one parent stated, "I hope it helps her know that what I am telling her is for the good because somebody else is telling her the same things about taking school to the next level."

Focus group discussions with guardians of returning second-year participants indicated that they believed the program had made a difference in these regards, which is why they thought it was so important for their children to be involved with Pathways again. Guardians noted that since the first Pathways summer, their child were more focused about doing school work, seemed to understand the connection between school and their future, and were more likely to talk to them about college. Guardians were not sure how much credit to give to Pathways versus the natural maturation of their child and other factors, but they did believe that Pathways introduced their children to the idea of having a "brighter future and helped to make the connection between school and future."

*Broadening their horizons (cultural capital).* As noted above, most of the guardians of Pathways students wanted their children to go to college. The guardians wanted Pathways to introduce college as a future possibility and to get their children thinking more proactively about their futures. A typical response, for example, included the following: "My hope for my child is to get some ideas about her future, meaning furthering her education after high school." Another parent noted that she wanted her son to "understand that [college] is not out of his reach . . . How important college is to his future." One grandmother commented that she wanted her son to "realize that there is more in life than just playing a sport." Another parent added, "I hope she is more open to opportunities for the future . . . and that it is very important to finish school, graduate and be successful and get better jobs to have a better



life.” This idea of having a “better life” was a recurrent theme in the guardians’ responses. For some, this goal was especially important given their own experiences. One parent, for example, explained that Pathways was important because it would lead to her daughter getting an education that would lead to her finding good employment. The parent noted, “Jobs are so hard to get; then once you get them it can be hard to keep them . . . I don’t want her to be like me—slow but still in the world trying.” The sentiments in this theme were best summarized by a parent who stated that Pathways ought to help her son “go to college and be successful in whatever he wants to do.” Still another comment sentiment was, “I hope that the course will give him an extra push toward being the best at whatever he decides to do in life, work, and school.” Guardians of second-year participants reported that their children’s involvement in Pathways had indeed broadened their horizons, noting for example, “Pathways helped my son to see his options for the future. That made him more likely to do his homework because he saw the work as leading him somewhere positive.” The guardians who participated in the focus group, most of whom had not gone to college themselves (except for one mother), wanted their children to know of the potential of what they could achieve. Pathways, they said, did that. “Pathways taught my son about college and made that a possibility for him.”

*Enhancing academic and personal skills and development.* Most of the guardians whose children participated in Pathways hoped that the program would teach or introduce their children to things that would ultimately improve their general academic skills, leadership skills, and help them to be better people. Self-esteem, self-awareness, and confidence, for example were frequently mentioned goals. Leadership skills were another area that guardians hoped that Pathways would develop. One parent noted that participation in Pathways would help her son be more independent. Another parent noted that the goal of Pathways should be to help her son learn “better time management.” Another explained, “I hope that he gains more confidence in himself. I hope that he becomes a great leader.” Another noted, “I want her to find her true strengths, and build on them to help her throughout her life. I’m hoping that she’ll learn to be more responsible.”

*Improvement of interpersonal skills and establishing positive relationships (social capital).* Of all the goals that guardians mentioned, the most frequent was related to interacting with important others and improving interpersonal skills. Many guardians hoped the experience of Pathways would help their children to improve their own interpersonal skills. For example, one parent stated that he hoped Pathways would teach his child “to be able to communicate better with peers.” Another noted that Pathways ought to help her son

“learn how to express himself openly . . . be more open to communicating. Not being so shy.” Most of the guardians noted that exposure to motivated peers and adult role models ought to have a positive influence on their child. As one parent explained, “I think my daughter will learn a lot of strong motivation about continuing her education by being around a lot of career and goal oriented people.” Another added, “Exposure to others and positive influences breeds young people to want to do something and be something.” Just meeting new people was also important to many guardians. As one mother explained, “I want my daughter to know more and get to know more people.” Many guardians suggested that knowing people who are associated with college and who had college aspirations would influence their children’s aspirations for the future.

### *Qualitative Results From Pathways Participants*

An analysis of the open-ended survey responses from all students indicated that they shared many of the same objectives their guardians expressed for participating in the program, and they felt their involvement had been worthwhile overall. Focus group discussions with students who returned for a second summer also provided an opportunity for further reflection on the ways Pathways had affected their personal development and educational aspirations.

*Making college real (cultural capital).* Imagining what going to college is like is difficult for many low-income students who would be the first in their families to pursue higher education. Therefore, actually visiting campuses was a powerful experience. One first-year participant reported, “[Pathways changed me] because now I know how college feels.” Others stated similarly that, “[Pathways] gave me new options,” “it changed my outlook on college,” and “it gave me a better view for college and more interest to attend it.” Learning about the college admissions process as well as available financial aid was significant too. One student pointed directly to being involved with Pathways and “possibly getting more money [for college] because when you know certain things, you know how to get money.”

*The development of college aspirations.* Students framed their educational aspirations in emerging, developmental terms that signaled the importance of being able to continue their participation in Pathways for a second summer. One student shared, “I came back, saw new things, went to new places, started thinking differently. Because last year I wasn’t as mature as this year. But I know, so I wasn’t thinking about . . . I was thinking about college but not in the ways I am now.” Another student said, “It took some time to get to

the knowledge of being like . . . wanting to go to college, learning different words, studying different things, knowing what scholarships you want to go after, what things . . . what teachers can do to get scholarships, how to talk to other people, communication skills, stuff . . . things like that.”

Given the significance of aspiring to and planning for college early, an exchange during the focus group about how Pathways might be improved captured the belief of several students that Pathways should begin in the elementary grades “so that when they come into middle school they should already know that they should already start planning for colleges.” However, a few others disagreed because they thought children so young might not have the patience to sit and learn about such weighty topics, and “they’re going to think that they have no childhood if you’re going to give it to them early. That’s too early.” Even though consensus was not reached about whether Pathways would be appropriate for elementary aged children, participants clearly recognized the value of being exposed to future opportunities like college when their life aspirations were still developing and the critical need for strategic, continuous planning throughout their formative years. One student expressed the need for Pathways to extend into high school, for example, “because high school students . . . like, that’s when they give up.”

*Personal confidence and leadership.* In addition to influencing students’ ambitions about college, Pathways sought to cultivate the qualities of leadership in its participants. Students identified particular activities and the general experiences of the program to be meaningful, and they also connected the lessons to specific values, skills, and dispositions that had been affected. For example, participants reported greater awareness of communication strategies that could help them improve interactions with their teachers, guardians, and peers. One student explained, “When I [say] stuff, you know how it sounds different but if you were in a different crowd it would sound different too. So I learned how to adjust and then adapt to different situations.” Perhaps related to this increased insightfulness, students commented that “Pathways changed me by showing me I don’t have to be shy,” “it gave me a little more confidence in myself,” and “I know how to go and meet new people without being scared.” A second-year participant illustrated this assertiveness by explaining, “Last year, I went to [another school] but came at the end of the year and I was real shy. I didn’t talk to nobody. And then, this year I was like a leader, I was a loud person, I took control. I didn’t let people speak for me.” Other focus group members readily voiced their agreement.

*Self-efficacy and success.* Participants’ greater confidence overall led them to feel like they could effect change and make a difference in their own lives. Referencing the guest visit of the Freedom Writers, one student stated, “Most

kids think that all things come easy when it comes to being in school so they don't think they have to show up. But when you meet the Freedom Writers and you read their book and you see how they changed and how things have turned around in their lives to make them successful, it makes you want to do the same thing." Another student expressed an understanding of being proactive and resourceful, explaining "Everybody has a certain person that they may go to for help. And when you get information from those people that you go to for help it's like you look up to them. You may not admit to it, but you look up to those people . . . You're communicating with them and you're being a leader and stepping up and saying, 'I want to do this,' and 'I want to go places,' and 'I want to do something with my life.'"

## **Significance of the Study and Concluding Discussion**

Going to college is an increasingly important decision given the associated educational, economic, and social benefits that accrue to most graduates. Yet, low-income, racial/ethnic minority youth in urban areas remain persistently underrepresented in higher education, and the varied nature, design, and evaluation of existing programs intended to address the issue make it difficult to draw conclusions about their ultimate effectiveness. While efforts to capitalize upon these students' leadership potential and affect their future aspirations can make a difference, Tierney (2002) urges researchers to conduct more systematic analyses of the outcomes associated with precollege preparation programs. The value of our study and subsequent results is evident in light of the descriptions Tierney lays out for meaningful research toward this desired end.

For example, Tierney (2002) recommends that evaluators document who the program under study is intended to serve, and who actually participates. The Pathways Partnership is unique in that it solicited all students identified by their teachers on the basis of leadership potential, defined broadly. Rather than involving just those students who excelled academically, the program also included students whose initiative had been expressed through unproductive or illicit activities such as gangs. Therefore, the fact that our study found a statistically significant change in students' overall college aspirations is all the more encouraging, and it underscores the potential of such programs for all students.

Secondly, Tierney (2002) advocates that consistent data be kept as indicators of program effectiveness. Our study is distinct in its use of multiple measures to collect affective and attitudinal data from students in two consecutive

years of program implementation and—with select students—longitudinally over the course of their continued participation. Furthermore, our study included the often neglected perspectives of students' guardians, an important constituency in shaping children's aspirations. Student and guardian responses corroborated each other, and an especially interesting finding in this study was that students had a clear sense of their guardians' expectations. This reaffirms that parental involvement matters, so precollege preparation programs like Pathways would do well to consider helping guardians remain informed and navigate the complicated path to college. One striking result, however, was a significant negative relationship between guardians talking to their children about the future and students' frequency of thinking about the future beyond high school. One explanation for this could be adolescent rebellion against parental wishes. Another explanation could be that our small sample size affected the study outcome. This is a finding that deserves further exploration.

Lastly, Tierney (2002) emphasizes the need to examine indicators of organizational effectiveness. Whereas some programs have been criticized for adopting a deficit view of urban youth, the inclusive notion of leadership used to select participants for Pathways as well as the collective effort made by one school district, multiple colleges and universities, and several area businesses demonstrate a programmatic orientation based on community strength and possibility. The impact of a week-long program is admittedly limited, but feedback from focus groups with second-year students as well as their guardians was decidedly affirmative. Students reported improvements in their grades, and guardians observed that even when they had to pester their children about doing homework, for example, their children seemed to understand the relevance of the task in relation to their future aspirations.

The findings of our study also generate additional questions for future consideration. For example, students suggested that Pathways be longer than one week and include students even earlier than 8th grade so they could be knowledgeable about the importance of good grades and enrolling in college-bound coursework well before they entered high school. They also expressed the need for continued programmatic support through high school. These recommendations make clear the developmental nature of how aspirations are formed, self-efficacy is cultivated, and academic plans are strategically devised. More specifically, though, what are developmentally meaningful ways to tap into student interests and help sustain student ambitions through the point of college entrance? What programmatic designs, curricular content, and interpersonal opportunities for engagement or support would be suitable for students in different grade levels?

Thinking about precollege preparation programs in such a comprehensive and strategically sustained manner is all the more important in light of studies documenting a critical gap between students' expressed aspirations and their actual achievement (Reynolds, Steward, MacDonald & Sischo, 2006). The fact that Pathways had measured positive effects on students' confidence, attitudes, and interest in college in just one week is commendable. Yet, Roderick's (2006) research illustrates how many youth have simply become "keen economists" who individually recognize the need for college but are left without the system-wide resources and support required to truly realize their goals. How can educators and policymakers better bridge the disparity between students' aspirations and their achievement? This is an especially critical question for precollege preparation programs like Pathways and others that serve students who are typically from low-income, racial/ethnic and linguistic minority backgrounds; attend urban schools that are inadequately funded and understaffed; and may be the first person in their families to attend college. Under such circumstances, the combined social, political, and economic challenges of educating youth often compromise the continued delivery and future potential of worthy programs. This reality is reflected in the fact that since our data were collected in 2007, teacher and administrator turnover throughout the school district and in key leadership positions left the Pathways Partnership without its necessary advocates. And despite the program's consistently positive impact on the students it has served, a slowing economy forced corporate sponsors to significantly reduce their financial support. Rather than expanding the program in order to work with students, their families, and their teachers at various times throughout the academic year, plans for the summer of 2008 only allowed for the participation of those students returning to Pathways for a second year. Pathways was entirely discontinued after 2009, not for lack of success but because staff turnover in partnering institutions made it impossible to sustain. The program was not institutionalized enough to endure these changes. Although there has been recent interest in reviving the program, it has not actually been resurrected to date.

While this study focuses its attention specifically on the Pathways Partnership, it contributes to an emerging body of research that must be compiled to better understand the role and characteristics of effective precollege preparation programs. Examining the organization, mission, evaluation, outcomes, and sustainability of programs like these is essential for helping low-income and minority students from urban communities navigate their paths from middle school to college and beyond.

## Appendix: Survey Questions

### Items Used for "Importance of School" Variable:

1 = *not important*; 2 = *somewhat important*; 3 = *important*; 4 = *very important*

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Getting good grades in school  
 Completing your homework every night  
 Paying close attention to what your teachers are saying  
 Learning everything your teachers are trying to teach you in school  
 Attending school every day and not missing any classes  
 Graduating from high school

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### Items Used for "Self-Efficacy" Variable:

1 = *not at all*; 2 = *a little bit*; 3 = *somewhat*; 4 = *very much*; 5 = *extremely*

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I feel confident about my abilities.  
 I am worried about whether I am regarded as a success or failure.  
 I feel frustrated or rattled about my performance.  
 I feel that I am having trouble understanding things that I read.  
 I feel that others respect and admire me.  
 I feel self-conscious.  
 I feel as smart as others.  
 I feel displeased with myself.  
 I feel good about myself.  
 I am worried about what other people think of me.  
 I feel confident that I understand things.  
 I feel inferior to others.  
 I feel concerned about the impression I am making.  
 I feel that I have less academic ability right now than others.  
 I feel like I'm not doing well.  
 I am worried about looking foolish.

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1 = *strongly disagree*; 2 = *disagree*; 3 = *somewhat disagree*; 4 = *somewhat agree*; 5 = *agree*; 6 = *strongly agree*

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I find school interesting.  
 I can succeed at school.  
 I can solve difficult problems if I try hard enough.

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(continued)

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## Appendix (continued)

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If someone disagrees with me, I can find a way to get what I want.  
 It is easy for me to accomplish my goals.  
 I am confident that I can deal with unexpected events.  
 I know how to handle unexpected situations.  
 I can solve most problems if I put in the necessary effort.  
 I can remain calm when facing difficulties.  
 I can usually find several solutions to problems.  
 If I am in trouble, I can usually think of a solution.  
 I can usually handle whatever comes my way.  
 I can name my top five strengths  
 Understanding my strengths helps me do what I do best  
 I know how my strengths affect my relationships.  
 I like to learn about myself.  
 Behaviors I used to see as irritating I now see as strengths.  
 I can see other people in light of their strengths.  
 I know how to use my strengths to achieve academic success.  
 I want to know the strengths of the people in my life.  
 I can easily relate what I am learning to who I am as a person  
 I have a plan for developing my strengths.

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### *Items Used for the Other Variables:*

1 = *strongly disagree*; 2 = *disagree*; 3 = *somewhat disagree*; 4 = *somewhat agree*; 5 = *agree*; 6 = *strongly agree*

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I frequently think about my plans after high school.  
 My parents really encourage me to go to college.  
 My friends are planning on going to college.

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## Note

1. From this point on in the article we use the term “guardian” to refer to parents and other guardians of the students in Pathways, unless citing from a specific source. We use the broader term guardian because many of the Pathway participants were being raised by grandparents or other adults.

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