Mentoring Scaffoldings: Do They Promote College Access?

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Executive Summary

This paper summarizes what is known and what is not known about mentoring programs focused on youth and related to college going. Several aspects of mentoring are reviewed so that the concept and some program variations are understood, such as peer and adult mentors, informal and formal mentoring, compensated and uncompensated mentoring, one-to-one and group mentoring, and young adult versus adolescent mentees. Four commonly held and untested assumptions about mentoring are examined: that mentoring is always a good idea; erratic mentoring is better than no mentoring; mentoring increases academic achievement and college-going; and mentoring is inexpensive.

Research suggests that many mentoring programs aim to accomplish goals that do not appear to be achievable through mentoring, e.g., academic improvement. However, mentoring programs, when properly designed, can achieve several important outcomes (although they are often different than those commonly touted in the literature and with much less significant impact than usually stated). Given that research indicates that mentoring as an intervention is weak compared to other social science interventions, it is important to consider the costs as well. Practitioners need to be careful that they are trying to achieve viable goals.

While it may not be statistically significant in advancing college-going as identified through grades or academic achievement, mentoring certainly fosters aspirations for college, builds self-esteem, motivates students to focus on academic achievement, provides valuable information about academic standards and norms for college-going, and decreases problem behaviors that can impede academic success and continuation. Each of these areas may have a mediating effect on college-going. Mentoring can be harnessed for its strengths, rather than focusing on goals it is not well equipped to meet.

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Most college graduates can likely recall at least one person who contributed to their personal and academic achievement and helped them successfully navigate the college-going process. As mentors, a teacher, parent, close friend, or athletic coach serve students in varying capacities. Some provide the spark that propels students to persist, while others offer timely encouragement, sage advice, and careful feedback regarding students' papers, career goals, and personal struggles. Yet, some aspiring college students have no such support networks and are left to negotiate the college-going process alone.

Mentoring has increasingly become known as a strategy for increasing college-going among youth. It is often lauded as a valuable and necessary approach to improving the social, academic, and behavioral outcomes of at-risk students (Grossman & Johnson, 1999). Yet, the process remains unclear: the role of mentors and the skills necessary to mentor young people remain nebulous. What is the role of a mentor? What is a mentor? Can anyone serve in this capacity? What knowledge and skill should mentors possess? A review of the research on mentoring demonstrates contradictory answers to these questions. This paper seeks to answer these questions by highlighting the research on mentoring and specifically examining its relationship to college-going, as a means to develop strategies for mentoring youth who intend to gain admission to college. We begin by defining mentoring and then describe and provide evidence on the common assumptions about mentoring. Finally, we conclude with several implications for practice regarding mentoring middle and high school students based on research.

Mentoring Defined

The broadest definition of mentoring is one person helping another in making significant transitions in knowledge, work, or thinking (Hamilton & Hamilton, 1992). Mentoring,

particularly in its traditional sense, enables an individual to following the path of an older and wiser colleague who can pass on knowledge and experience, and open doors to otherwise out-of-reach opportunities (Levine and Nidiffer, 1996).

As implied in the definition of mentoring, mentors engage in a variety of activities within the context of several roles (Everhart, 2000; Martinez, 2000). Those roles include that of counselor, supporter, confidant, and role model. First, mentors engage students in conversation to explore their needs, motivations, desires, skills, and thought processes to assist them in making life decisions and to provide advice. In this capacity, mentors are often holistic counselors who discuss all aspects of students' personal and academic goals. It is therefore helpful if mentors are skilled at asking key questions to prompt thinking and help students identify solutions and actions. Second, mentors provide support for students once they have made decisions through encouragement and commitment to action. For example, a mentor might help a student who has made the decision to go to a liberal arts college to understand the admissions requirements of the institutions and help him set appropriate goals for meeting these expectations. Third, mentors provide the role of confidant. In most definitions of mentoring, scholars describe the importance of trust so that students feel confident sharing fears and dreams with the "confidant" (Freedman, 1992). The mentor providing positive, nonjudgmental feedback to the mentee can obtain this trust. Fourth, mentors also serve as role models by sharing their own experiences, which provides valuable information the mentee may not otherwise encounter. Much of the literature on mentoring suggests that a mentor's experience in the phenomenon that the mentee is interested in is significant for serving as a role model (Gandara & Mejorado, 2005). A student who is interested in going to college is better served by a mentor who has been to college.

While all mentoring involves these various roles and activities, certain aspects further distinguish different types of mentoring: (1) peer versus adult mentors, (2) informal and formal mentoring, (3) compensated and uncompensated mentoring, (4) one-to-one and group mentoring, and (5) young adult versus adolescent mentees. It is important to examine these different models as they may have differential impacts on students.

Adult and peer models of mentoring. Because mentors serve as role models, adults have typically filled this role as they have previous experience in the college setting. They can provide needed support in helping students meet their college-going goals by explaining entrance requirements and expectations of college students. Since adult role models can speak from experience, they are therefore knowledgeable and trusted sources among students.

While mentoring has traditionally meant the pairing of a more experienced and older individual with a younger individual, in recent years peer mentoring has become much more prevalent. There are several reasons for its emergence. First, peer mentors are often more in touch with the experiences that students are going through, and can therefore provide guidance that is more relevant. Second, peer mentors can often play the role of confidant since students are more likely to build trust quickly and open up to peers by whom they do not feel intimidated. In particular, studies of mentoring about issues such as HIV/AIDS and similar delicate and challenging issues have demonstrated the importance of peer mentoring (Mancuso & Johnson, 2003). Third, peers are often used in situations in which there are not enough adult mentors available, such as schools with very few guidance counselors.

Despite the obvious differences between adult and peer mentors, few studies compare the results of adult versus peer programs. There is some indication that peer programs are often developed because of a lack of adult mentors, suggesting that this is a less desirable model.

However, there is little evidence to support that one structure is stronger than the other. In general, evidence suggests the value of both.

Informal and formal mentoring. Formal mentoring typically refers to a relationship that is facilitated and supported by an organization (i.e. a college program). Informal mentoring is created spontaneously and maintained informally by those involved. Informal mentoring frequently happens as students gain support and counsel from their peers, teachers, parents, and other individuals through the informal networks they establish during their K-12 years. Researchers rarely study these informal relationships because they are difficult to measure and identify. Informal mentors also come into and exit students' lives at variable rates and various junctures; therefore, understanding the role these mentors play remains elusive.

Formal mentoring is best understood through models such as the Big Brothers Big Sisters program in which children are linked formally with adults. Formal mentoring has been subject to more study than informal, but results of the research are mixed. Specific mentoring programs have differing goals, philosophies, and structures, and programs vary vastly making comparison difficult. Inconsistent and unclear goals and methods often make results difficult to substantiate (Gándara & Mejorado, 2005). Recent meta-analysis of formal mentoring programs suggests that they have a modest impact on a variety of outcomes, described later in this paper (Dubois, Holloway, Valentine, Cooper, 2002).

Compensated and uncompensated mentoring. Simply put, the terms compensated and uncompensated describe mentoring relationships in which mentors are paid (i.e., compensated, sometimes referred to as involuntary) and those in which they are unpaid (i.e., uncompensated, sometimes referred to as voluntary). Again, the research is not clear. It would seem that uncompensated mentoring has potential to better aid students personally and academically since

voluntary mentors likely have intrinsic motivation and passion for working with students. Yet, their uncompensated nature might result in declining interest and motivation as time progresses or if the relationship with the student does not result in mutual benefit. Similarly, compensated mentoring monetarily rewards mentors for their time and dedication to students, but also has potential to be ineffective, as mentors might be more motivated by the pay than helping students (Busch, 1985; Martinez, 2000).

One-to-one and group mentoring. While many individuals' first impression of mentoring is that it involves one-to-one relationships, group mentoring has become popular in recent years. One-to-one mentoring is beneficial because it replicates the parental role and has the potential to promote significant relationships. Yet, group mentoring is beneficial for several reasons: with a shortage of mentors, group mentoring provides more students with access; programs can maximize the use of strong mentors; and peer mentoring can be built into group mentoring. There are also several drawbacks including less individual time, which impacts the trust-building process and the establishment of the confidant role. Research evidence to date is mixed as to whether one-to-one or group mentoring provides more beneficial outcomes. In addition, it is unclear whether different outcomes are fostered by these varied structures.

Young adult and adolescent mentees: Developmental level. Most of the research showing that mentoring has beneficial outcomes has been conducted among undergraduate and graduate student populations. Given the developmental differences between college students and middle/high school students, it is important to point out the distinguishing features of mentoring in each population.

Mentoring in college typically involves a faculty member who provides advice, encouragement, support, and integral exposure to research and writing opportunities (Busch,

1985: Martinez, 2000). Mentoring college students has several key features: it was voluntary on the part of both parties, the individuals had high social status and were often not labeled as "at-risk," and both parties were autonomous and could discontinue unbeneficial relationships (Gándara & Mejorado, 2005).

In contrast, mentoring middle/high school students and populations often labeled as "at-risk" (e.g., low-income, first-generation, and racial/ethnic minority students) poses unique challenges. For example, greater power differentials exist between the student and mentor, who is often a teacher or guidance counselor; more patience is needed by the mentor to effectively manage differences in educational and life experiences; students might have trouble relaying important information to mentors or might be shy around their mentors; and potentially irreconcilable differences can exist between parental guidance and the assistance mentors provide (Gándara, Larson, Mehan, & Rumberger, 1998; Gándara & Mejorado, 2005; Grossman & Johnson, 1999; Johnson, 1998; Morrow & Styles, 1995). These challenges make it more difficult to mentor youth; more care and time are necessary from mentors who wish to facilitate middle and high school students' college-going. To mediate the difficulties of traditional mentoring, many schools and organizations have formed peer mentoring programs or peer programs to supplement adult mentoring programs.

Although limited research has been conducted to better understand differences by type of mentoring approach, much research has focused on outcomes of mentoring programs as well as the best practices in designing formal programs. In the next section, we present some untested assumptions and compare them to the empirical research to help practitioners make better decisions when considering developing a mentoring program.

Combating Untested Assumptions about Mentoring

Most literature on mentoring suggests significant rewards for students. But is mentoring regardless of design and approach positive for all students? In what ways? And what untested assumptions exist when designing programs? In this section we addressed the assumptions that prevail about mentoring: that mentoring is a good idea regardless of approach, erratic mentoring is better than no mentoring, mentoring significantly increases academic achievements and college-going, and mentoring is inexpensive.

Assumption #1: Mentoring is a Good Idea Regardless of Approach

To question the merits of mentoring almost seems absurd. Most assume that knowledgeable adults can only help in the college-going process of students, and that it is always useful for young people to have support negotiating the complex process of applying to and matriculating into a college or university. For instance, mentors can help demystify college admissions by explaining the complex process of financial aid, the usefulness of advanced placement tests, and when specific events need to happen (e.g., taking the SATs, completing financial aid forms, and applying for scholarships). In addition, mentors can offer advice on college choice by selecting a postsecondary institution that is compatible with a student's developing needs, goals, and interests. However, research (Gandara, Larson, Mehan & Rumberger, 1998; Gandara & Mejorado, 2005; Grossman & Johnson, 1999; Morrow & Styles, 1995) suggests that mentoring needs to be designed in order to meet desired outcomes. To combat this first assumption—that mentoring always results in positive student outcomes—research on mentoring programs identifies four important areas that should be considered when designing a program: (1) knowledge of mentors, (2) relationship of mentor to mentee, (3) a structured mentoring process, and (4) monitoring of mentoring relationship.

Knowledge and training of mentors. Scholars who advocate mentoring often operate under the guidance framework (Plank & Jordan, 2001): students are more likely to attend college when provided with useful guidance and essential information to assist them in navigating the college process. Under the guidance framework, the mentoring process is one means to enable students to acquire necessary resources and gain a competitive advantage in the admission process (Lareau, 1989; Stanton-Salazar, 2001). Therefore, mentors must possess useful, up-to-date information and have valid knowledge about what students need to facilitate their college-going. For mentoring, appropriate knowledge is highly critical (Stanton-Salazar, 2001). Therefore, orientation and on-going training for mentors is related to improved outcomes for students (Freedman, 1992; Hamilton & Hamilton, 1992).

Relationship of mentor to mentee. A positive relationship between the mentor and mentee is related to positive outcomes in the mentoring process. Matching the mentor and the mentee with specific attention to the amount of contact, compatible goals, characteristics, and structure of contact is important for a positive and mutual beneficial relationship. Frequent contact and meeting times (typically weekly) and an extended relationship over time have consistently been identified as important to achieving mentoring outcomes (Dubois, Holloway, Valentine, and Cooper, 2002). By maintaining intensity (frequent and extended contact), trust builds between the mentor and mentee potentially resulting in a positive relationship (elaborated on later in the paper).

Another consideration in the relationship between mentor and mentee is whether they have shared goals. Hamilton and Hamilton (1992) classified mentors based on purpose. Level 1 mentors strive to develop relationships with their students, while Level 2 mentors endeavor to offer students multiple options. Mentors who utilize a Level 3 purpose work on building

character, and Level 4 mentors aim to develop competence with their mentee. Though these four levels depict clear-cut demarcations among mentor purposes, mentors might apply multiple strategies in their relationship with students to assist in college-going. These various strategies result in different relationships with mentees depending on the mentees' goals and objectives. They found that a mismatch in goals prevented positive outcomes. Mentoring can be improved by examining the relationship of the mentor to the mentee and ensuring that clear mutual goals are established.

The characteristics of mentors and mentees can impact whether the relationship creates positive outcomes. The experiences and background of mentors coming from a "helping" role or profession (social work, teaching, and the like) appear to make a significant difference in student outcomes (Dubois, Holloway, Valentine, and Cooper, 2002). While the specific skills that these individuals bring is beneficial, the race or gender of the mentor does not appear to have an impact on results (Dubois, Holloway, Valentine, and Cooper, 2002). Studies indicate the characteristics and needs of children within mentoring programs also relate to different outcomes (Everhart, 2000). For children with externalized locus of control, mentors are more successful if they focused on self-esteem and companionship. In contrast, children with internal locus of control respond better to active mentoring which emphasizes skill acquisition. While few studies have been conducted examining key characteristics of mentors and mentees, emerging evidence suggests that student needs and the style of the mentor need to be matched.

Structuring the mentoring relationship. More structured activities, such as mentors filling out logs and being monitored, result in more positive outcomes for students (Dubois, Holloway, Valentine, and Cooper, 2002). In addition, parent support and involvement also increased the effectiveness of mentoring program (Dubois, Holloway, Valentine, and Cooper,

2002). While parents may not have the information or experience to be strong role models, they can support knowledge offered up by mentors if they are included in some way in the programs. For example, an introductory session about what mentors do and their goals can help parents better understand their role. In general, including structured elements in mentoring programs from orientation, to training, to monitoring, to journaling, appears to produce more beneficial outcomes (Dubois, Holloway, Valentine, and Cooper, 2002; Hamilton and Hamilton, 1992).

There are also several specific structures that have emerged in recent years and need more investigation: one-on-one versus group mentoring and peer versus adult mentors. While we have limited data on these two structures, it is important to carefully examine and monitor the impact of these structural factors. Sipe (1999) has shown that mentoring is most beneficial when it is a one-on-one relationship between mentor and student, especially when the relationship lasts at least one year. While most evidence suggests that one-to-one mentoring fosters a stronger relationship, some studies have found that group mentoring can be beneficial if it is organized appropriately and thoughtfully. Packard, Walsh, & Seidenberg (2004) found that small groups of students (3-4) and teachers (1-2) can lead to strong relationships and positive mentoring outcomes. Thus, results so far are mixed.

Whether the mentor is a peer or adult might also affect outcomes. Several studies of peer mentors demonstrate that they can be effective in helping mentees learn life skills, improve academic achievement, build self-esteem, and improve decision-making (Forouzesh, Grant, & Donnelly, 2001; Gale, 2000). More recently, many peer-mentoring programs have been established using technology to link students with similar aspirations or interests that might be located in different areas (Gale, 2000).

One structural component of mentoring programs that does not appear to have a significant impact on student outcomes is the philosophy and goals of the program. In a meta-analysis of 55 studies of mentoring and the impact of program design, programs with the general goal of promoting positive self-image and those design with instrumental goals of education and employment did not have significantly different effects on a host of outcomes from grade point average, attendance, and completion of high school, to reduction of problem behavior, emotional adjustment, and others (Dubois, Holloway, Valentine, and Cooper, 2002).

Monitoring the mentoring relationship. Students form many contacts throughout their educational journeys that provide them with both valid and incorrect information about admission to colleges and universities. Educators cannot solely expect these informal networks, though important, to improve college-going. Relying on students gaining useful college-going information by happenstance is not a useful approach. In order to enrich the mentoring process, the relationship between mentor and student should be carefully and consistently monitored. For example, mentees could keep journals in which they describe what they have learned from their mentors as well as identify gaps in information that they need to fill. Surveys could also be conducted of mentees in programs identifying what they are learning and not learning from mentors. In addition, data collected from mentees might provide insights into best practices that could be shared with other mentors.

Slicker and Palmer (1993) assert that "the key to an effective mentoring program … is the close monitoring of the integrity of the treatment used" (p. 333). Consequently, mentoring relationships should be monitored and carefully examined to understand which components of mentoring facilitate students' enrollment into higher educational institutions. For example, research and evaluation should document and collect data on all the program components and be

able to control for the effective mentoring, academic support, and information on college-going provided by other means.

Assumption #2: Erratic Mentoring is Better than No Mentoring

The assumption that all students surely benefit from any mentoring is perhaps the most prevalent. However, the research on mentoring programs suggests inconsistent mentoring is likely to have no measurable impact. In addition, the high rate of mentor and student turnover makes it particularly difficult to assess the impact of mentoring on students' academic outcomes and track progress towards college. As McPartland and Nettles (1991) insist, "although it is tempting to think of mentoring as a 'quick fix,' it probably is not" (p. 155).

Sipe (1999), Mejorado (2000), and Foster (2001) emphasize that most of the research on mentoring programs indicates that the longer a mentor is matched with a mentee, the more likely the mentoring will produce positive effects. Inconsistent and short intervals of mentoring tend to have no significant benefit for students. Mejorado (2000) found that most of the mentoring relationships in her study lasted for less than one year, demonstrating irregular mentoring patterns and levels of success. Although we recognize that the time-intensive nature of good mentoring makes for a complicated endeavor in trying to recruit and retain qualified mentors (Gándara & Bial, 2001), erratic mentoring appears to have no effect on student outcomes. Simply, the assumption that any mentoring is beneficial is not upheld.

The key word is *consistency*. When mentors do not meet consistently (usually defined as weekly or biweekly) with their students, the mentoring relationship often does not achieve its desired outcomes (Flaxman, Ascher, & Harrington, 1988; Roaf, Tierney, & Hunte, 1994). Studies demonstrate that students are more satisfied with the mentoring relationship, and they develop better relationships with their mentors, if they meet on an on-going basis and at frequent

intervals, typically weekly (Flaxman, Ascher, & Harrington, 1988; Gándara & Bial, 2001). But consistency may still not always translate into certain outcomes. Even with the biweekly meeting requirements of the RAISE program (discussed further below) (McPartland & Nettles, 1991), the mentoring did not have a significant effect on students' academic achievement or college-going aspirations and preparation.

Assumption #3: Mentoring Significantly Increases Academic Achievement and College-Going

Students' academic preparedness is likely the most crucial indicator of college enrollment and success. It comes as no surprise that students who take a more demanding course load are better prepared for matriculation into the most selective institutions of higher learning. For low-income students, often unfamiliar with the hidden knowledge and tacit rules necessary for increasing their college-going probabilities (Lareau, 1989; Stanton-Salazar, 2001), mentoring is seen as one useful mechanism to offer students that necessary knowledge and skill-set which might prompt them to enroll in more challenging courses. However, although mentors have been found to successfully encourage students into those courses that often lead to academic achievement and college-going, overall the link between mentoring and academic achievement is relatively weak. Additionally, studies have not been able to isolate the impact of mentoring from other program elements and, therefore, have been unable to determine its impact on college-going. However, studies have isolated the impact of mentoring on other specifics—aspirations for college, motivation, college-going knowledge, and decrease in problem behaviors—suggesting that more focused mentoring programs could still impact several important student outcomes.

Improves academic achievement? A meta-analysis by Dubois, Holloway, Valentine, and Cooper (2002) demonstrates that mentoring programs have a *small* yet significant effect on

school attendance, number and type of courses taken, grade point average, and other indicators of academic achievement. While this is identified across the literature, specific programs often do not show gains in academic achievement. For example, in his study of the Brothers Project, a program designed to mentor high-risk African American teenagers (i.e., those living in households headed by a female; having less than grade equivalency in science, math, and reading; and with a household income at or below 125 percent of federal poverty guidelines), Royse (1998) found that the program did not impact students' academic achievement to any extent as measured by students' grade point average (GPA). Though GPA is only one measure of academic achievement, students' GPA is used as an important factor in gaining admission to more selective colleges and universities.

Project RAISE is a 7-year initiative of community sponsors with an objective of supporting 60 at-risk students from sixth grade through high school. One-on-one mentoring is the primary component of RAISE. The sponsors include 2 universities (one predominantly White and the other predominantly Black), 2 churches (one predominantly White and one predominantly Black), 2 businesses (both largely White), and 1 (traditionally Black) fraternity (McPartland & Nettles, 1991). Because the initiative does not set standards, each sponsor implements RAISE in idiosyncratic ways, but all have enlisted the support of volunteers to provide tutoring and recreational activities. Though students' English grades improved minimally, the effects were not substantial enough to claim that mentoring played a key role in students' academic achievement (McPartland & Nettles, 1991).

As Gándara and Mejorado (2005) suggest: "there is also a dearth of research on the role of mentors in the development of a high-achievement identity for underrepresented students who participate in these programs" (p. 109). Consequently, the notion that mentoring dramatically

improves students' academic outcomes remains a misconception with little data supporting that assertion. What practitioners need to focus on are the outcomes (social capital and self--esteem) that are important to college-going. Academic support is likely more important for improving academic outcomes, and focusing on mentoring to meet the goal of academic achievement is likely a misguided effort.

Improves college-going? Perhaps the most important, but least supported, potential benefit accrued through mentoring is increasing students' college access. Most research on mentoring focuses on changing behaviors (e.g., alcohol and drug use, poor class attendance, and lack of study skills) which may lead to other outcomes such as college-going. Few studies observe how mentoring impacts academic outcomes and increases the likelihood of students' attending college. The studies that do measure college-going are often based on little to no empirical data, and rely instead on anecdotal accounts. Even more problematic is that most studies do not study college-going longitudinally in order to vastly understand how mentoring plays a role in students' progression along the educational pipeline. This section highlights the few studies that have explored mentoring and college-going, demonstrating that further research is needed in this area to differentiate the role of mentoring from other programs.

Johnson (1998) researched Sponsor-a-Scholar (SAS), a program focused on high school students from low-income families within the Philadelphia area, with the fundamental purpose of promoting college-going and academic outcomes. Beyond mentoring, SAS offers students numerous resources such as test-preparation, tutoring, counseling, scholarships, and summer internships and jobs. An impressive 85 percent of students were still involved in the program in their first year of college (Johnson, 1998). Sponsor-a-Scholar students showed moderately higher GPAs than their non-SAS counterparts in the first year of college (two percentage points).

However, by the students' second year of college, no statistical differences were found between the experimental and control groups in GPA or retention. Though the program appears to have beneficial results, one cannot attribute those results completely to the mentoring component, given the several other factors—counseling, tutoring, test-preparation, scholarships, and summer internships and jobs—involved in the SAS program. Mentoring likely plays a role, but its effect is not captured in the research.

In a smaller study, Rumberger and Brenner (2000) examined a mentoring program in California that targeted "average" academic performers in students' fifth grade year. The authors compared two groups: students randomly assigned to mentors and those not assigned in order to explore academic and behavioral effects of the mentoring. Three years later, the study had minimal effect on students' academic performance and moderate results for "college-going skills." For instance, 85 percent of students paired with a mentor identified available homework resources, while only 55 percent of the control group could do so (Rumberger & Brenner, 2000). Since the authors did not state the students' characteristics, one is left to speculate about the differences between the students with mentor and those without. Furthermore, the authors indicate that the program directors of the mentoring program added other activities in addition to mentoring. Consequently, this study's conclusions are similar to the SAS program: it is difficult to isolate the effects of mentoring from these other activities that may have facilitated students' college-going.

One final study is offered to problematize the assumption that mentoring increases students' college-going. Puente is a four-year program that targets Latino/a students and provides them with multiple interventions to enable them to enroll in postsecondary institutions. Students are assigned a counselor and mentor for their years of high school and designated to a Puente

English class in ninth and tenth grades. Mejorado (2000) compared students with longer-lasting relationships (i.e., one year or more) and high satisfaction with their mentors and those with low satisfaction and shorter relationships (i.e., less than a year). She found no difference in students' grades, but did find that students who had longer-lasting and more satisfying mentor relationships identified clearer knowledge of and plans for college. However, much like the aforementioned programs, the mentoring component alone cannot be shown to influence students' college-going aspirations and preparedness.

Known benefits of mentoring. Mentoring is potentially one of several factors that enable students to matriculate into higher education. While it may not be statistically significant in advancing college-going as identified through grades or academic achievement, it certainly improves college-going knowledge and aspirations. Mentoring needs to be harnessed for its strengths, rather than focusing on goals it is not well equipped to meet. Studies have identified several areas in which mentoring can make a difference: aspirations for college, motivation, college-going knowledge, and decrease in problem behaviors/development. Each of these areas may have a mediating effect on college-going.

Research suggests that mentors are helpful in fostering aspirations for college (Levine & Nidiffer, 1996). Having discussions with mentors, particularly ones who have gone to college, can help build and fuel the interest in going to college that is often lacking in first generation college students primarily due to the lack of academic capital among their immediate family (Dubois, Holloway, Valentine, and Cooper, 2002). Building aspirations appears to be particularly important among children from divorced households as well. Mentors build self-esteem, helping mentees to believe they can reach their aspirations (Dubois, Holloway, Valentine, and Cooper, 2002; Sandler, Miller, Short, & Wolchik, 1989).

In addition to fostering aspiration, mentors motivate students to focus on academic achievement and college-going. While they may not actually improve students' academic achievement (in terms of grade point average) or increase college-going, studies demonstrate that mentors both focus and energize students towards their learning goals (Gandara, 2001; Levine & Nidiffer, 1996). As Gandara notes (2001) students are more successful if there is a person who monitors and guides them over time. While other people can serve this role (staff for an early intervention program, for example), this is typically the role of the mentor and an important programmatic element among early intervention for college programs. Levine and Nidiffer (1996) studied twenty-four first-generation college students to understand the factors that motivated students and facilitated matriculation to colleges and universities. The authors found that each student could readily name a significant adult mentor who played an important role in college access. Some students identified family members (e.g., mothers or uncles), while others named teachers. Other students pointed to a social-services figure, such as a counselor, who provided the catalyst for their academic success. Levine and Nidiffer claim that each mentor had knowledge about the students' lives (i.e., experiences living as low-income students) and the academic contexts in which they endeavored to gain admission and provided motivation. In addition, these adult role models were knowledgeable and trusted sources among students, providing needed information – the next major impact of mentors.

Mentors can provide valuable information about academic standards and norms that are helpful to students as they move through high school and then college, if they have the necessary training. In particular, they provide key information about the necessary steps along the way such as the appropriate curriculum to take, data about financial aid, knowledge about entrance exams, and the like (Gandara & Mejorado, 2005; Stanton-Salazar, 2001). Research has demonstrated

that mentors pass on information and provide necessary resources that make college possible for students who otherwise might not obtain this information from family members or their communities.

Mentors decrease problem behaviors that can impede academic success and continuation (truancy, expulsion, and the like), particularly important among at-risk youth who exhibit these behaviors at higher rates. While mentors can have some success with emotional and psychological development, this area was found to be the weakest of all outcomes. Researchers suggest that many emotional issues are deeply rooted, and a long-standing and trusted mentoring relationship needs to develop before mentors can have a positive impact on the psychological development of youth (Sandler, Miller, Short, & Wolchik, 1989).

Since the impact of mentoring programs falls substantially short of other psychological, educational, and behavioral treatments generally (Dubois, Holloway, Valentine, and Cooper, 2002), the cost of programs needs to be examined and compared to other programs and interventions.

Assumption #4: Mentoring is Inexpensive

Mentoring seems utterly straightforward: find a capable adult who knows much about college and find a student who needs support in getting to college. Pair the two together and the student's chances of going to college will increase. The adult role models already have all the resources they need—their personal experiences with college and knowledge about the college process. Given this common assumption, mentoring seems relatively inexpensive and easily organized. A review of the extant literature suggests otherwise. Formal mentoring programs are not entirely cost-effective. Effective mentors must be selected, trained, monitored, and evaluated. Mentoring programs are more effective when celebrations and other events are hosted, which

increases costs. Furthermore, mentoring is effective when the process is lengthy and consistent, but the longer the process, the more costly the experience. Lastly, mentors are more effective when they are rewarded for their work, thus many mentoring programs believe mentors should be paid, which also drives up the cost.

Data from various mentoring programs. Few studies have examined the costs of mentoring. This is not surprising considering that the few published studies that exist fail to explicitly detail the financial burdens of their mentoring tactics. From available data, Fountain and Arbreton (1999) discovered that, on average, a mentoring program serves a little under 300 students and employs one paid full-time staff member to provide administrative duties for every 60 students. Each program utilizes one volunteer staff-member for every 25 students, with this voluntary staff person devoting 75 percent of time to mentoring activities and the remaining 25 percent to administrative responsibilities. The authors maintained that the average cost per program was $2,300 per student. Within this average, some programs spent less than $200 per student, while others skyrocketed to more than $6,000 (Fountain & Arbreton, 1999). These numbers alone demonstrate the high monetary nature of mentoring.

Big Brothers Big Sisters. Given the frequent mention of Big Brothers Big Sisters in the literature, examining the organization's costs is particularly advantageous. The extensive process that mentors go through in order to become a Big Brother or Sister results in nearly a year of wait (Grossman & Tierney, 1998). Background checks, interviews, and pairing up of a prospective mentor with her or his mentee is an in-depth and costly venture. These processes combined result in a mean of $1,000 per student. This dollar amount, however, excludes the costs of running the Big Brothers Big Sisters program and training and supervising mentors (Rumberger & Brenner, 2000; Sipe, 1996).

The review of just these two studies alone illuminates the financial constraints placed on mentoring programs and challenges the assumption that mentoring is inexpensive. Given the costly nature of mentoring, organizations or individuals who desire to participate in the process must carefully consider how to maximize the finances in a cost-efficient manner, realizing that mentoring is wrought with monetary challenges. Also, given the research that mentoring as an intervention is weak compared to other social science interventions, it is important to consider whether it is worth the cost.

In sum, research suggests that many mentoring programs aim to accomplish goals that do not appear to be achievable through mentoring, e.g., academic improvement. However, mentoring can achieve several important outcomes (although they are often different than those commonly touted in the literature and with much less significant impact than usually stated). Practitioners need to be careful that they are trying to achieve viable goals. However, what is not clear is whether mentoring is the only or best method to achieve these goals, as no comparison studies exist. In addition, given the expense of mentoring and the weak outcomes, it is questionable whether this is an important and viable intervention. However, we have provided recommendations on how to create a mentoring program that maximizes the known benefits of mentoring.

Implications for Practice

Mentoring can make a difference in the lives of children and may increase college-going. What the review of the research demonstrates is that it may not be the most effective approach to reach some important goals, such as information about college, improved academic achievement, or even increased aspirations. In addition, to reap the benefits of mentoring it must be appropriately structured and monitored, which can make the program expensive. Before

considering the recommendations on how to create a beneficial mentoring program, we advise that individuals consider other interventions that may produce similar and more beneficial outcomes. Then, for those hoping to utilize mentoring as one mechanism to increase students' progression through the educational pipeline, several points should be considered: how to establish appropriate goals; collaborate with school personnel; train mentors; provide structure; create consistent mentoring experiences; monitor the costs of programs; examine the outcomes of different types of programs, such as compensated and uncompensated mentoring; and assess mentoring outcomes.

Set Appropriate Programmatic Goals and Pair Mentoring with Other Complementary Programs

While it may be the case that mentoring has not significantly impacted academic achievement, it also might be that academic achievement is not a particularly appropriate goal for mentors to engage. The evidence suggests that mentors should focus on developing aspirations, motivating students to engage in academic activities, providing information about college-going, encouraging prosocial behavior and building self-esteem. Promoting aspirations and motivation to promote college-going suggests that any mentoring program aimed at improving college-going should be paired with other programmatic elements that can develop academic achievement.

Develop Collaborations with School Personnel

Utilize school personnel as useful sources of information. Mentoring should not be divorced from the schooling context. Given the complexity of developing mentoring programs, school staff are important to the process. Students' academic and personal experiences largely take place within their educational environments. Therefore, partnering with teachers, guidance counselors, and others who have daily contact with students is one mechanism to reap the

benefits of mentoring. The more knowledgeable and available resources students have, the greater their opportunities for gleaning pertinent college-going information. Outside mentors should work within the school context and not treat mentoring as a separate, exclusive approach from students' schooling. The union of mentors with school personnel has possibilities to extend students' networks, thus enhancing their understanding of the application and admission processes for postsecondary institutions. In addition, using the resources within schools reduces the cost of mentoring programs.

Implement and Maintain a Training Program for Mentors

Provide extensive training (orientation as well as on-going training) to mentors about relevant college access information (e.g., financial aid applications, scholarships, SAT test dates and registration processes, advanced placement testing, and college application deadlines and processes). There is often inconsistent knowledge and skill-sets among mentors. Some merely view their role as that of a friend, while others work to develop competence among mentees. If the goal is to increase students' aspirations, preparation, and access to college, the mentor must be transformed into a more significant resource. Programs should carefully consider the criteria they will use to select prospective mentors. For instance, does the mentor have to be a college graduate? The literature suggests that there is great diversity among mentoring programs in their goals, activities, and philosophies. Mentors can serve different needs; however, if the aim is to increase college-going, mentors should possess useful and specific knowledge related to that process. Also, mentors from the helping professions appear more successful in their roles. While these individual may not always be available, it might be desirable to think about the skills these individuals possess (listening skills, for example) and to include these skills in training sessions.

Provide Structure and Organization

Successful mentoring relationships require attention to structure. Mentors should be reflective about their relationships, asked to maintain a journal and to monitor and keep notes of the relationships. Mentors need to organize sessions and think about their goals as well as ways to measure progress. As noted earlier, mentors need information about the background of the students they are working with, their developmental needs, the context of the school, and changes in college-going information. To be successful, mentors need to investigate the goals and experiences of the students they are working with and develop a plan that fits with the students' needs and expectations. Regular meetings and a focused agenda can help improve the outcomes of mentoring. While evidence is unclear whether one-to-one or group mentoring is better or whether peer or adult mentoring has a stronger impact on college-going outcomes, research demonstrates that structured mentoring programs are more successful than programs that ignore structure.

Maintain Consistent Mentoring

Offer consistent mentoring with clear goals. Most studies on mentoring programs describe a lack of stability and clear aims among mentors. Most mentors are paired up with their mentee for less than one year. The high rate of turnover offers an erratic mentoring cycle for most students, which in the long run, does not impact their academic or college-going outcomes. There is no standard procedure for the length of time necessary to achieve desired outcomes. For instance, programs should explore whether one meeting a week for one hour is sufficient, or if biweekly meetings meet goals and actualize outcomes. However, one point remains clear—meeting at erratic intervals (e.g., once a month for one hour) is unlikely to produce positive

outcomes. Consistent mentoring, as the literature advises, is in fact better than irregular mentoring.

Analyze Cost-effectiveness of Mentoring

Examine the costs of mentoring, especially since it has relatively minimal impact on students. Mentoring is labor-intensive and relatively costly. The number of hours one must spend selecting mentors, examining their backgrounds, trying to ensure there is a good match between mentor and mentee, and training and supervising mentors lead to significant financial constraints on good mentoring programs. One key query to consider is the following: Is group mentoring better than one-on-one mentoring, and, if so, is it more cost-effective? Studies have found both one-to-one and group mentoring to provide beneficial outcomes. Programs considering mentoring should explore multiple options in order to use monetary resources wisely, but still achieve intended outcomes. Group mentoring might be one approach to do so, and still enable students to academically and socially succeed.

Compensated and Uncompensated Mentoring

Consider benefits and drawbacks to uncompensated (unpaid) and compensated (paid) mentoring. As previously noted, paid mentors might be more motivated to work with their mentors than those who are voluntary; however, individuals who are unpaid can also have a stronger passion for working with such students. Prior to asking school personnel to serve in additional mentoring capacities, organizations should explore the challenges associated with posing supplementary duties among already overwhelmed school staff. As McPartland and Nettles (1991) write:

> The mentor's role is usually described as being a caring adult to support a student's efforts to succeed at major goals, but this conception raises questions of implementation

> and coordination with paid adult advocates in the program and with other adults in the student's school and home. (p. 584)

This assertion underscores the complexities of infusing paid and unpaid mentors with school staff. For mentoring to be successful, programs should intentionally weigh the limitations and advantages of both approaches.

Assess Mentoring

Evaluate mentoring programs on a consistent basis to understand their effects. One major reason little is known about the advantages and disadvantages of mentoring is the lack of assessment data on mentoring programs. Because numerous individuals just assume that mentoring is effective, mentoring is rarely, if ever, evaluated. In order to improve individuals' knowledge about the kinds of mentoring that improve academics and college access, programs should consistently evaluate their mentoring by asking students and their mentors about their experiences (e.g., time spent in mentoring sessions, activities completed, nature of sessions, and discussion topics during sessions). Under what conditions does mentoring work best? What are the most useful mentoring strategies for low-income students? Addressing these types of questions significantly adds to the knowledge base about mentoring programs and serves as useful benchmarks for individuals or organizations wishing to implement mentoring.

In addition, monitoring mentoring relationships can help provide valuable feedback to mentors about whether they are being successful in their approaches. As noted earlier, different students might require different approaches to mentoring and if there is no monitoring of the mentoring relationship than any mismatch in personality, approach, or goals will not be identified. Furthermore, students vary in their developmental needs and assessment can help to provide needed data about the developmental level of the mentee.

Further Research on Mentoring

The limitations of current research represent gaps in our understanding that might shape program design, opportunities for future research, and areas for practitioners to consider evaluating as they develop and structure programs. First, mentoring benefits may remain unknown because certain outcomes (such as an increase in GPA) are focused on rather then other outcomes that may be beneficial to college-going and student success. Research that focuses on new outcomes might help practitioners to develop programs focused on the most appropriate goals. Because mentoring is a human relationship, prone to individual nuances, more studies from a qualitative perspective that examine the intricacies of particular relationships are needed. Almost all of the research on mentoring is quantitative in nature and examines program elements in relation to certain measurable outcomes. Therefore, we know very little about the mentoring process (in terms of its intricacies) and outcomes that are not easily measured and quantified. Second, we know little about the direct effects of mentoring because mentoring is often one component among several in programs that endeavor to amplify students' academic achievement and college-going aspirations and preparation. Further research should control for mentoring to examine its outcomes, if any. Third, we need comparative studies, of mentoring with other interventions aimed at aspirations, for example, to understand which programs are more successful in achieving these goals. Longitudinal studies are also of import as a means to explore changes in students' goals, academic and developmental outcomes, and perceptions over a long period of time. Programs with a primary mentoring component, such as Kauffman Scholars, offer substantive opportunities to conduct longitudinal studies. Also, we need to examine new models that are developing, such as e-mentoring, that are growing rapidly and are being used more and more by programs.

Conclusion

The above strategies are not meant to be silver bullets in the mentoring process, but are offered as discussion points to consider for those wishing to implement mentoring programs to increase students' college-going and academic achievement. They are research-based and reflect our knowledge of best practices to date. The proposed design strategies are better if used in concert rather than in isolation. We encourage readers to obtain literature specific to developing a training program or monitor the mentoring process to obtain more detailed knowledge about these processes.

Mentoring is a complex process. Research has proven that the presence of a caring adult in the lives of young people is useful for providing students with support, advice, and information pertinent to their success. The specific role of mentoring in other outcomes such as academic achievement or college-going may be minimal. Though readers of this paper can likely point to at least one significant mentor who encouraged them to persevere during difficult times, the specific practices and role of that individual is likely elusive. The actual activities (nuances that can be ascertained through qualitative study) that mentors utilize in working with students needs more study to further our knowledge related to outcomes and program design. Doing so will reveal the mentoring process and clarify the misconceptions that are all too often taken as facts.

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The Center for Higher Education Policy Analysis (CHEPA) brings a multidisciplinary perspective to complex social, political, and economic issues in higher education. Located within the Rossier School of Education at the University of Southern California, the Center's director is William G. Tierney. Adrianna J. Kezar is the Associate Director. Conducting theoretically informed research with real-world applicability, the Center has a broad focus on three areas of higher education—improving urban postsecondary education, strengthening school-university partnerships, and understanding international education.

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