ISSUE BRIEF

Creating a High School Culture of College-Going: The Case of Washington State Achievers

BY JENNIFER RAMSEY

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IHEP

INSTITUTE FOR HIGHER EDUCATION POLICY
1320 19th Street, NW, Suite 400
Washington, DC 20036

202 861 8223 TELEPHONE
202 861 9307 FACSIMILE
www.ihep.org WEB

IB01200806

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Introduction

Increasing competitiveness in today's globalized and knowledge-based economy demands college-educated professionals. Creating an adequate number of college-educated professionals requires an investment in human capital, particularly in postsecondary education. In fact, six out of every 10 jobs in the United States involve advanced skills that can be acquired only through some postsecondary education or training (McDonough 2004). Although most students and parents recognize the importance of higher education, students from families in the top income quartile are about seven times more likely than students from the bottom quartile to earn a baccalaureate degree (Education Trust 2001). This discrepancy leads to a widening income gap and leaves employers with too few employees with the necessary skills.

Multiple factors contribute to lower rates of postsecondary degree completion among low-income students. One of the most recognized factors is the rapid increase in the cost of attending college. Though the federal government provides some financial assistance to students with a demonstrated need, the amount of aid has not kept pace with tuition, making higher education less affordable.

Financial constraints are compounded by structural factors stemming from the social, cultural, and educational environments more often found in areas with high concentrations of low-income students. These factors include limited academic offerings and lower expectations coupled with fewer college counselors and other positive influences. Low-income students often lack access to college preparation resources. Frequently, there is no connection between high school graduation requirements and college entrance requirements, and low-income students are less likely to complete a rigorous curriculum (Brown Lerner and Brand 2006). Even when advanced classes are available, school staff may discourage low-income students from enrolling in them. The fact that low-income students often do not have a family member with any postsecondary education also hinders their college enrollment, as they may have little or no understanding of the college-going process (Advisory Committee on Student Financial Assistance [ACSFA] 2002). Although finances and academic achievement are often cited as the main barriers to postsecondary access, the availability of counselors, college information, and mentors are also key predictors in entering college (McDonough 2004). Successful programs to reduce access barriers take a holistic approach and incorporate a combination of the aforementioned factors (Gandara and Bial 1999).

The Bill & Melinda Gates Foundation took a holistic approach when creating the Washington State Achievers (WSA) program. Introduced in 2001, WSA integrates high school reform and early college information at 16 high schools in Washington state with college scholarships for selected students from those schools. These scholarships provide guaranteed financial support to in-state colleges and universities for a group of approximately 500 low-income students each year. This report will discuss WSA's key successes and challenges in addressing barriers to college attendance among low-income students with the goal of opening up a discussion of programs and policies that can lead to the creation of a high school culture of college-going.

Washington State Achievers Program

The Bill & Melinda Gates Foundation designed the Washington State Achievers (WSA) program to combine its philanthropic initiatives related to school reform and college scholarships in one program. The program's main goals are to reduce financial barriers for talented, low-income students; encourage school redesign that improves academic achievement and increases college enrollment for all students; provide mentoring for academic support; and develop a diverse group of leaders in Washington State (Baker et al. 2005a). The designers of the program, begun in the home state of the foundation, hoped to create a successful model that could be replicated elsewhere. With the financial and educational assistance provided through the program, students at the selected high schools are expected to be able to enroll in the four-year in-state institutions of their choice.

To accomplish its goals, the foundation selected 16 Washington State high schools with large low-income populations and provided them grant money for school reform. Staff then redesigned their schools to align with the foundation's fundamental belief that all students should graduate from high school ready for college, work, and active citizenship. The Bill & Melinda Gates Foundation also donated scholarship money to the College Success Foundation (CSF), formerly known as the Washington Education Foundation, to administer the scholarship portion of the program. After receiving the mandate to administer the scholarships, CSF began working with early awareness programs so students would receive college information as early as middle school. During their junior year, students at WSA high schools who meet certain criteria may apply for the scholarships.[1] CSF coordinates the selection of scholarship recipients, known as Achievers, from this applicant pool and administers workshops to orient new Achievers to the WSA program and help them prepare for college. Achievers also have designated mentors to support them throughout their final years in high school and the early years of college. This comprehensive initiative seeks to help create a "college-going culture" and increase the numbers of low-income students from these high schools who enroll in postsecondary education and complete a college degree.[2]

[1] The main criterion is family income, which must be in the lowest 35 percent of Washington state income levels, coupled with modest family assets. Students must also be planning to complete a four-year degree.

[2] For additional information on the WSA program, see the CSF Web site <http://www.collegesuccessfoundation.org/achievers/>.

Research on WSA

As part of its efforts to discover best practices in preparing students for high school graduation and beyond, The Bill & Melinda Gates Foundation sponsors research and regular evaluations of its initiatives. The information presented in this report is drawn from these studies, which used in-depth interviews, focus group discussions, personal observations, and surveys to examine the implementation and possible effects of the WSA program.[3]

- Two quantitative studies used data from the University of Washington Beyond High School Project (UW-BHS) survey. This survey includes responses from four cohorts of high school seniors in several districts located along the I-5 corridor in Washington state during 2000, 2002, 2003, and 2004. One public school district with five large high schools was surveyed all four years; three of those high schools were selected by WSA, leaving the other two schools as a comparison group (St. John and Hu 2006; Herting et al. 2007).[4]

- Additional quantitative studies used data collected by the National Opinion Research Center (NORC) for The Bill & Melinda Gates Foundation.

  – One research study discussed findings from the first cohort of students three years after receipt of the scholarship. This cohort includes only Achievers (Sedlacek and Sheu 2006a).

  – Another study used research on the third cohort of WSA students, which included both Achievers and non-recipients (Sedlacek and Sheu 2006b).

- One qualitative study used 10 focus group discussions comprised of students similar in makeup to the percentages of males, females, and various ethnic groups of Achievers. Researchers for that study also conducted life history interviews with eight Achievers (Hilberg et al. 2006a; Hilberg et al. 2006b).

- Another set of researchers conducted yearly assessments of the program and its progress using multiple research methods.

  – Annual evaluations of the program included interviews and focus groups with CSF staff, mentors, college personnel, school administrators, teachers, parents, and students (Baker et al. 2005a, Baker et al. 2005b; Baker et al. 2007a).

  – A second study used comparison high schools to look at several student outcomes. Researchers surveyed the students and compared course guides, master schedules, graduation requirements, and lists of graduates (Baker et al. 2007b).

  – A third study used hundreds of observations of classroom teaching to look at the essential components of powerful learning as defined by the foundation. Observers tallied scores based on the Teaching Attributes Observation Protocol, which assesses different attributes of powerful learning, to determine teachers' classroom techniques (Baker et al. 2007a).

Taken together, the various studies on WSA provide a comprehensive picture of the program and its early results. Using information from these studies, this report documents the successes and challenges of the program and what they mean for improving college access and success for low-income students. The following sections describe findings related to key areas of the WSA program-high school reform, early college information, scholarships, and mentoring-as well as findings that may reflect the overall effects of the program in the high schools it serves. The report concludes with suggestions for future research on the WSA program that may help to further illuminate potential strategies for building college-going cultures in high schools.

[3] Additional information on WSA early college information efforts, scholarships, and mentoring programs was provided by CSF staff members.

[4] The sites used in the UW-BHS survey are not directly comparable because The Bill & Melinda Gates Foundation specifically chose schools with high percentages of low-income students, so the control sites are not demographically similar. Researchers controlled for socioeconomic variables with regression analysis.

High School Reform

High school reform, a main focus of The Bill & Melinda Gates Foundation's work in education, is a multi-tiered institutional change program, with the goal of improving the educational system so that students achieve college entrance at higher rates and leave school prepared for college and the workforce. It also seeks to improve the overall educational experience through the creation of a personalized community, which can create a safer and more engaging environment. High school reform addresses aspects of schooling that create inequalities in education and encourages all students to excel.

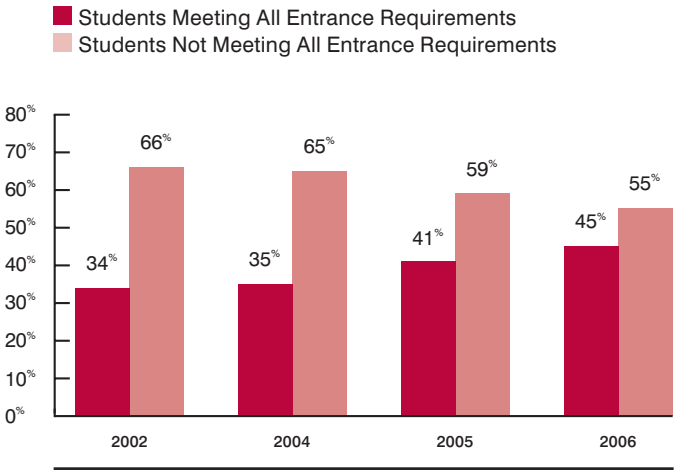
Low-income populations are frequently concentrated in large, urban areas with correspondingly large high schools. Research suggests that students have improved educational experiences and outcomes in smaller schools. While there is no agreed-upon magic number for the effective size, the suggested range falls between 300 and 900 students (Martinez and Klopott 2005; Williams 1990). Reasons for greater academic success in smaller schools include the following:

- Smaller schools improve both student and faculty accountability.
- The schools have a clear mission and often an academic specialty in which students and teachers alike invest.
- Students are less likely to be put on separate curricular tracks, which can impede college preparation.
- More collaboration and support are naturally occurring qualities of smaller communities, including schools.

While the creation of a cohesive school community with personalized attention is considered an important aspect of school reform, students also need adequate academic preparation if they are to move on to college. Advocates and researchers are concerned that low-income students have less access to a challenging curriculum that prepares them for entrance into college (McDonough 2004). Research shows that a major predictor of baccalaureate degree completion is the quality and intensity of the high school curriculum, particularly higher-level English and mathematics coursework (Adelman 1999). Low-income students are less likely to take those courses. As a result, low-income students who do enter college need more remedial coursework, so they are unable to begin immediately taking courses that lead to college credit. This situation extends the length of time to degree completion, further increasing the financial burden (Pell Institute 2005).

FIGURE 1

Percentage of WSA High School Graduates Meeting All Entrance Requirements for Washington State Four-Year Universities, 2002–06



NOTE: DATA FOR 2003 NOT AVAILABLE.
SOURCE: BAKER ET AL. 2007A

As part of the WSA initiative, The Bill & Melinda Gates Foundation provided grants to 16 high schools in Washington State with a high prevalence of low-income students. Eleven were large schools requiring a complete redesign into smaller schools, which was their focus in the first three years; the remaining five began immediate implementation of steps toward creating an effective learning environment with the specific goals of the foundation in mind. Those goals are common focus, high expectations, personalized learning environments, respect and responsibility, time to collaborate, performance-based assessment, the use of technology as a tool, and the improvement of classroom instruction (Baker et al. 2005a).

Along with restructuring schools to create a more cohesive environment, emphasis was placed on changing what was expected of teachers. Teachers were expected to engage students in an active learning process, giving the students a more holistic understanding of what they are studying. Teachers were also expected to provide regular and personalized assessments of the students' learning. Most importantly, teachers were challenged to change their expectations of all students to match the high expectations they had typically reserved for the students earning the highest grades, including encouraging students to enroll in advanced placement (AP) or international baccalaureate (IB) classes. Considered college-level classes, these courses are strong predictors of college-going behavior because of their academic rigor (Martinez and Klopott 2005). Schools were also tasked with creating curriculum standards that would align classes with college entrance requirements, helping to create a college-going culture for all students.

While research on the WSA implementation found some positive outcomes, it is not possible to be certain that these outcomes are attributable to the structural changes in the high schools. Nevertheless, one study of WSA schools did find an increased enrollment in AP, IB, and Honors classes after reforms were implemented. The percentage of scholarship recipients from selected WSA schools enrolling in advanced courses increased from 58 percent in 2003 to 72 percent in 2004 (St. John and Hu 2006). Students in WSA schools were also taking fewer remedial English and mathematics courses and increasing their enrollment in world languages (Baker et al. 2005b).

Because of this increased enrollment in advanced courses, the percentage of students prepared to enroll and succeed in four-year colleges also increased within WSA schools, which may demonstrate promise in the reforms. When compared with other reform schools and schools with no reforms but of similar characteristics, the differences in the percentage of students graduating from WSA high schools with the admission requirements for a four-year institution in Washington state are quite striking (FIGURE 1). By 2006, 45 percent of students were graduating with the requirements, up from 34 percent in 2002 (Baker et al. 2007b). Nonetheless, it is important to keep in mind that

the high school reform had only just been completed, so it is too soon to observe all of the possible effects of high school reform on student outcomes.

One area in which research on the WSA high school reform efforts found positive signs of change was in relationships among teachers, staff, and students. Achievers felt their teachers' investment in their academic success greatly improved their likelihood of succeeding in high school and continuing on to college. One Achiever said, "Every class where a teacher took an interest, where a teacher knew me by name and asked me what was going on, I invested more in class…when a teacher invested in me I wanted to do well" (Hilberg et al. 2006b). As this quote highlights, having a chance to connect on an individual level with teachers, owing to smaller school size, may help students believe in themselves and their abilities.

However, research on WSA also found a number of challenges. Researchers observed that in the schools that restructured to become smaller, the reforms were often met with initial resistance. Staff turnover also presented problems, as new staff members were often less invested in the program's success. One of the most difficult aspects of the reform was that, during the redesign process, the principal at all 16 WSA schools changed at least once. Teachers expressed concern that the schools were departing too much from the typical school structure and worried about how that would affect their jobs. Parents also resisted the change for fear that their students would have fewer course selections and might actually end up taking fewer college preparatory courses.

In some schools, implementation problems may have diluted the effect of the program. When students were unable to enroll in classes in their newly formed small school or academy, they would take classes at another academy formed from their original large high school.[5] This ultimately dampened the effect of creating a personalized learning environment, as students were not always with their usual teachers and classmates. This was particularly true during junior and senior years, when students were taking more AP courses that might not be available at their particular small learning community (Baker et al. 2007a).

In some cases, the high school reform model was accepted only reluctantly in WSA schools. Because of the promise of scholarships for so many of their students, several teachers felt they were unable to reject the grant money to reform their schools, since it would mean denying many of their deserving students the opportunity for college. In such cases, the scholarship feature of the program was a main catalyst for overcoming resistance to change (Baker et al. 2005a). This created another tension in creating a cohesive environment, as not everyone was equally invested in the reform

[5] The term academies is used by WSA to denote the small schools created from the larger schools.

process. Further difficulties arose from the fact that the reform was mostly focused on structural changes rather than an integrated approach that included classroom instruction. Overall, classroom observers noticed little change in teaching methods from the first observations in 2001 to the final observations in 2006 (Baker et al. 2007a).

Resistance also came from teachers who expressed personal beliefs that not all students need to be prepared for college. After the third year of implementation, however, there was noticeable change in that attitude. Interestingly, the concern shifted to a focus on who was not going on to college as opposed to pushing only for those students teachers considered "college material" (Baker et al. 2005b). While some teachers continued to express their beliefs that not all students need to be prepared for college entrance, students, teachers and researchers noticed a change in most of the schools and most of the staff (Baker et al. 2005a).

These findings suggest that quickly implementing high school reform programs may prove challenging. The resistance to change and inconsistencies in implementation methods and timing in the WSA high schools warranted a longer process of redesign and implementation to ensure that all staff members were committed to the changes. The schools also struggled to retain their individual identity as many students took classes in other academies. Further, at the time of the final classroom evaluation, some schools were only beginning to emphasize instruction and classroom techniques. As a result, change directly related to the reform process was difficult to ascertain. Ultimately, the reform process was not as inclusive and holistic in its original stages as intended, but some positive changes were visible, including increased AP, IB, and Honors enrollment and increases in the percentage of graduating students who met the requirements for admission to a four-year state college or university.

Early College Information

Research demonstrates the effectiveness of providing college information at an early age in order to offer students ample opportunities to prepare (Wimberly and Noeth 2005). Students not on grade level in math and reading by the eighth grade are less likely to be college ready (Kuh 2007). To complete a mathematics curriculum shown to be directly related to college success, students often must begin algebra in eighth grade. With that core coursework, they can proceed through the advanced mathematics courses that are strong predictors of college success.[6] Providing early information to students allows them to plan their coursework properly (Adelman 1999). However, college planning is often constricted in low-income areas because of a lack of information, and students may pass over opportunities that would allow them to pursue a college preparatory track.

One reason low-income students are less likely to have information on college preparation is their lack of access to college counselors. Improving counseling has a significant impact on college access. While low-income students and their families are more dependent on school personnel for information about college, their elementary and secondary schools are often ill-equipped to provide such information. Few counselors in high schools are trained appropriately to fill this role. Schools serving large numbers of low-income and minority students have on average 1,056 students for each school counselor, compared with the national average of 490 students per counselor. Furthermore, very little time is spent on college guidance counseling in these schools. Instead, it is often focused on personal and behavioral problems (McDonough 2004).

As a complement to the changes occurring at the high school level in WSA school districts, CSF implemented early information programs in the middle schools that feed into the WSA high schools. To provide early college outreach and complement counselors' efforts, College Board™ and The Bill & Melinda Gates Foundation developed an early awareness curriculum for middle school students called CollegeEd. The foundation then initially funded the middle schools that feed into WSA high schools to use the CollegeEd curriculum to raise college awareness among their students. Since its initial pilot, CSF has begun working with middle school teachers using any college awareness-raising curriculum the teachers choose.

Funding from Washington state's GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) enabled CSF to increase staffing in the WSA high schools, thereby increasing its capacity to provide early outreach to

[6] Adelman's (1999) research shows a direct link between successfully completing a mathematics course of at least Algebra II level and college success. Students who complete a course higher than Algebra II more than double their odds of completing a bachelor's degree once enrolled.

students in WSA schools and their feeder middle schools. This federal government program provides large matching grants to state governments and local agencies to increase the number of low-income students prepared to enter and succeed in postsecondary education. Using this additional funding, the CSF College Prep Advisors (CPAs) provide early outreach to students in eighth, ninth, and tenth grades to build a bridge between the college information provided in middle school and high school. The CPAs work within the schools to provide information in various formats, depending on the preferences of the school and teachers (e.g., classroom visits or brown bag lunches).

CSF further enhanced the program by introducing the HERO (Higher Education Readiness Opportunity) program. HERO works with students with a B or C average who want to go to college but are not fulfilling their potential. During eighth, ninth, and tenth grades, students receive academic advising, after-school programs, college visits, leadership development, and test preparation. The Bill & Melinda Gates Foundation provided funding for the HERO program to focus on men of color, a highly underrepresented group of Achievers, and other underrepresented students in the pipeline to college. With involvement earlier than junior year that is specifically directed toward them, it is hoped that more of these students will begin applying for the scholarship, as well as for college in general.

The implementation of early college information efforts in WSA school districts has faced some difficulties. Teachers seem to be positive about the college-awareness curriculum and recognize its importance, but some indicated that they are implementing it only to comply with the grant. The most frequently expressed frustration was giving up significant course content time, which may be a concern for sustainability once the grant ends. Schools also struggled to bridge the content from middle school to high school, often leaving students with lingering questions and an information lag. To address these concerns, CSF worked to implement the GEAR UP grant to allow the CPAs to assist students over this bridge. The costs of the CollegeEd curriculum are also of concern for sustainability. Therefore, CSF supports the work of school staff who use several different curricula to raise college awareness. Though this change did help with the problem of sustainability, the implementation of early outreach remains inconsistent among schools.

As the early outreach program is still transitioning and the best implementation methods are under evaluation, little can be definitively stated about the direct effects of these additional support programs. This is particularly the case in terms of demonstrating that early college information leads students to change their academic trajectory, as not all of the survey participants were in middle school when the program began. However, students are increasingly enrolling in AP, IB, or Honors classes, which may be at least partially attributed to the provision of college information. Also, more students reported that teachers were the most useful source of information about college, ahead of parents/guardians and the Internet (Baker et al. 2007a).

Scholarships

Students hoping to enter college often face a roadblock in the form of financial need. Affordability affects educational expectations and plans, steps toward college admission, enrollment in college, and persistence once enrolled (ACSFA 2002). As the federal grant aid system has not kept pace with the rising cost of tuition, more low-income students are facing greater financial need than ever before.

Although there are other options aside from federal grant aid to assist students financially, they often are not viable for low-income students. For example, taking out student loans is one option, but the amount of necessary loans often exceeds debt burden recommendations (ACSFA 2002). Another option for students is to work. Unfortunately, it is difficult for students to work enough to cover their financial need without sacrificing academic success (ACSFA 2002). Students working more than 20 hours per week are less likely to complete a degree. Similarly, students who choose to save money by attending school only part time are less likely to graduate (Tinto 2004).

Private scholarships—money from private donors that does not have to be repaid—are an important option for financial assistance. A recent study found that a little more than half of private scholarship aid went to students in the lowest income quartile. Undergraduate students with unmet need of $1,000 to $4,999 received an average of $1,527 in 2004 from private scholarships (Cunningham et al. 2005). But even with those numbers, low-income students often face a gap between the aid they are given and what they need to pay for their education. Low-income students have an average unmet need of $3,800 annually (ACSFA 2002).[7]

Income status earlier in life further affects students' educational expectations and plans. Low-income students may not take the necessary steps in middle and high schools to prepare for college entrance since they do not expect to have the opportunity to attend owing to their financial situation (McDonough 2004). Some scholarship programs are beginning to address this barrier by guaranteeing financial aid earlier. With the knowledge that funding is guaranteed, students may be more likely to prepare for college in earlier years.

The Bill & Melinda Gates Foundation created the scholarship component of WSA to address the financial gap and provide an early financial guarantee to students in the program. Each year, more than 500 students from the 16 participating high schools receive a scholarship that covers all tuition and fees at public institutions and a sizable portion at private universities. The scholarship provides generous funding, with maximum award amounts based on the type of institution the student will be attending after taking account of all other scholarship and grant monies. In many cases, the scholarship effectively eliminates the students' financial need. Eligible students apply for the scholarship during their junior year and are accepted on the basis of both academic and non-cognitive criteria, such as sense of self, goal-setting, and openness to receiving support from others.[8] Grade point average (GPA) is not a criterion, but in recent years, selection has been managed so that students are assessed with respect to applicants of similar academic backgrounds in order to achieve a constant selection rate for students across a 2.3 to 4.0 GPA spectrum.

[7] Unmet need is defined as the gap between the cost of attending college and all the resources a student has available (e.g., family income, scholarships, grants).

Once selected, students have a guarantee that, if they follow certain guidelines (e.g., maintain passing grades) and attend program activities, they will receive financial support at an institution in Washington State for up to five years. Selected high school juniors can put aside financial concerns and begin the college application process to ensure that they will meet the criteria for entrance to a four-year institution in the state.

Although the scholarship is not available to every low-income student, students currently attending or who will soon be attending the participating schools are aware of the scholarship program. This early awareness may eliminate some of the students' concerns regarding the affordability of higher education and encourage them to prepare for college eligibility; thus, the scholarship may affect college preparation and enrollment for all students attending WSA high schools, not just the recipients.

Several studies have examined the effectiveness of the WSA scholarship component in the short time since the program was implemented. Using what he terms conservative estimates, one researcher concluded that at least 39 additional graduating seniors attended a postsecondary institution due to the scholarship component of the program in just the three schools in the UW-BHS survey. This study also found that the scholarship increased the likelihood of enrollment in a four-year institution for Achievers (St. John et al. 2006). Another study found that Achievers have fewer financial concerns because of the scholarship, so they are able to become more engaged in extracurricular activities than non-recipients. They are also more likely to have higher educational aspirations, which are often associated with a lower debt burden (Sedlacek and Sheu 2006b). In previous studies, these engagement outcomes have shown significant impact on persistence and completion (Tinto 2004).

In interviews, Achievers indicated that the scholarship directly related to their college entrance and gave them the opportunity to choose the type and location of their education. As one Achiever noted, "It gives you the opportunity to pick and choose where you want to go rather than being limited." Another stated, "It gave me hope and motivation to go to school, and not just start, but finish" (Hilberg et al. 2006b). Nearly half of participants in a focus group that consisted of Achievers in the first year of the program said they would not have gone to college had it not been for the scholarship (Hilberg et al. 2006a). However, in the program's sixth year, the number of Achievers stating that the scholarship was the reason they were able to go decreased, as 70 percent stated they would have attended college anyway (Baker 2007a).

[8] Using non-cognitive variables is a method of measuring what students know by evaluating what they can do and how they deal with a wide range of problems in different contexts (Sedlacek 2005).

Mentoring

While counselors who provide early and complete information are effective tools to help students understand the college application process and academic requirements, there is still a place for additional encouragement and support on a more individual and personalized level. Having information about college is not enough; it is also important that young adults have a person in their lives who encourages them to apply to college and gives them the support that helps them gain confidence to succeed. This person is often a family member or teacher, but this support can come from any role model invested in the student's success (Martinez and Klopott 2005).

Mentoring is important not only during the middle and high school years; students need continued support and guidance once enrolled in college. Low-income students may not know how to navigate the college-going process and environment. Some students may even feel that they are unwelcome or do not belong in the college environment. Students who feel out of place and unsure of themselves are less involved in college life, and thus, less likely to persist (Tinto 2004). Having someone assist during this transition can help assuage these fears and concerns, engage the students in college, and answer any questions students might have.

One of the stated goals of WSA is to ensure that all students are prepared for college and entry into the workforce. The high school reform aspect of WSA encourages high school teachers and administrators to commit to students' college goals, which should have a positive impact on college attendance. However, the program does not expect the staff to provide the only guidance and support. Each Achiever is assigned a mentor both in high school and for the first two years of college. Mentors assist the students throughout the entire college-going process. Hometown mentors in the high school work with students on college selection and the college and financial aid application processes and provide other necessary support. College mentors help students with administrative aspects of college such as course selection and the financial aid process, as well as navigating the new social and academic environment. They also encourage students to become involved in different aspects of college life.

To increase the WSA program's ability to provide mentors, CSF sought additional funding from the Washington Office of Superintendent of Public Instruction. This partnership provides the WSA high schools with funding for either a part- or full-time College Prep Advisor (CPA) in each school dedicated to the Hometown Mentoring program. Along with the early outreach

activities occurring under GEAR UP funding, they work to ensure adequate placement of mentors with Achievers and provide all the support necessary for the program.

Additionally, CPAs use the College Bound program with students who applied for the Achievers scholarship but did not receive it. Though they do not provide formal mentoring services to those students, they will refer students to various services to assist them in their college-going process, and they share the students' names (with permission) with all Washington college admissions offices.

The CSF is continuing to work on ways to improve the WSA mentoring program, particularly in terms of working with the Achievers Alumni Association to recruit volunteers to be mentors or school "Ambassadors" to their former high school. These alumni provide the students with a living example that earning a baccalaureate degree is possible and in some cases help to dispel teachers' preconceived notions about who is "college material."

Research suggests that the WSA mentoring program has had positive results for some students. In interviews, several students stated that their mentor helped them not only with the college application and financial aid processes, but with personal questions as well. As one student said, "I had a really good mentor for the last four years, so every time I had a question I could either go to my mentor or go to [the Achievers College Mentor Coordinator]" (Hilberg et al. 2006a). Other students echoed that statement, reflecting increased student agency in accessing resources at their college; support during the transition from high school to college was the most frequently cited assistance Achievers received from mentors (Pell Institute 2006).

In addition, one study found that support and encouragement from the college mentors were positively related to the time students spent studying and engaging in academic activities during college (Sedlacek and Sheu 2006a). These types of successes are important because research has shown that retaining students in college requires empowering them to access academic, social, and personal support (Tinto 2004).

Conclusions

Integrated programs addressing the multiple barriers to college access present interesting cases to study and potentially replicate. The WSA program is one example of how comprehensive high school reform coupled with early college awareness and the prospect of scholarships may lead to more low-income students gaining access to college. In studying this sort of complex program, however, it is important to recognize that the interaction among program elements inevitably complicates the findings of any research. In the case of WSA, mixed outcomes and difficulties in implementing some aspects of the program make it impossible to reach any definitive conclusions about the program's success.

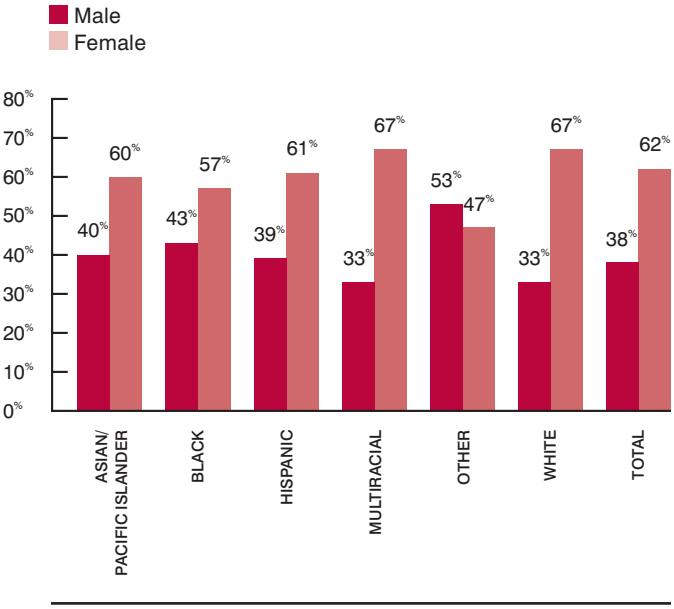
The students who received Achievers scholarships and the accompanying mentoring seem to have derived considerable benefit from the program. For many students, receiving the scholarship increased their confidence and sense of personal worth. The program also created new opportunities for students by giving them the financial freedom to become involved in volunteer activities and other school activities outside the classroom. Compared with low-income students nationally, Achievers were more likely to be academically engaged and involved in their communities (Pell Institute 2006). Personal investment from teachers and mentors also increased students' ability to navigate a new social setting. Students with the most contact and support from mentors and teachers had the greatest academic success in college. In addition, as students adjusted to college life, many reported contacting their mentors less often because they had learned from them how to ask for help and support from others (Hilberg et al. 2006a).

The impact of WSA on college preparation and college-going is less clear. For example, one study found that two of three WSA schools in one district showed increases in four-year college plans, SAT and ACT test taking, and enrollment in a four-year college one year after high school compared to non-WSA schools in the same district (Herting et al. 2007). Another study, however, found no increase in SAT and ACT test taking rates and increases in college-going that were similar to increases in non-WSA comparison schools (Baker et al. 2007a).

Moreover, not all program aspects were successfully implemented or had the desired results. Providing a sizable scholarship was expected to be an incentive for more students to plan for and attend college, but observations of the program suggest that the scholarship selection process may have targeted students who would have attended college anyway. Some students may also have self-selected out of the process

FIGURE 2

WSA Cohorts 1 Through 5 by Race/Ethnicity and Gender



SOURCE: PELL INSTITUTE 2006

despite there being no minimum GPA. In addition, during the early years of the program, scholarship applications required a letter of recommendation from a teacher, a requirement that was later changed to an academic evaluation in response to the concern that teachers were unwilling to recommend certain students whom they did not perceive as "college material" (Baker et al. 2005b).

The Achievers also showed some marked disparities by sex and race/ethnicity (FIGURE 2), and teachers began expressing concern that certain groups (men of color and Pacific Islanders, in particular) were being missed in the scholarship selection process (Baker et al. 2005b). In particular, almost two-thirds of the Achievers are female across all cohorts (Pell Institute 2006). This is striking in comparison to national data, which show that 57 percent of undergraduate college students are female. In Washington State, 56 percent of college students are female (U.S. Department of Education 2005). However, in comparison with the total minority college enrollment in Washington state, the program greatly exceeds the state average for all ethnic groups. Seventy-six percent of state enrollees are White, whereas only approximately two-fifths of Achievers are White (Pell Institute 2006; U.S. Department of Education 2005).

The high school reform aspects of the WSA program were inconsistently, and at times grudgingly, implemented, which may have had a negative effect on outcomes. The various research studies reviewed for this report suggest that one of the most influential factors in program success is the level of commitment and support for the program in its entirety. The inconsistency in implementation was not solely because program elements were implemented differently across schools, but also because of each school's level of commitment to the program's success.

Ultimately, the findings from research on the WSA program show a mix of outcomes. Although students in WSA high schools more frequently exhibited college-going attitudes and college-going behaviors, comparison schools and other schools throughout Washington State, many of which were also undergoing reforms during this time frame, also exhibited these positive trends. On the other hand, students in WSA schools increased the number of advanced courses they took, and support from teachers and mentors improved students' college knowledge and confidence. Students and teachers also expressed positive opinions of the high school environment and its cohesive nature. In addition, enrollment at four-year institutions increased for students who received WSA scholarships, and these students showed increased levels of academic and community engagement, suggesting that the program has some potential to improve college access and success for low-income students.

Future Research

Research already conducted on the WSA program can contribute to further dialogue about the effects of comprehensive efforts to develop a high school culture of college-going. However, further research is also needed to better understand the long-term effects of this sort of program and to start to disentangle the interactions among program elements. Ongoing and future research could focus on two broad categories of outcomes: effects on students (Achievers and non-recipients) and effects on institutions. Suggested research questions include the following:

- **Are there differences in outcomes for schools that had to restructure their size versus those that were already smaller? How did school size impact the learning environment?** Initial research conducted by Baker et al. (2005a) found that in the larger schools, teachers often expressed hesitation to change the traditional school format, which led to slower implementation of some of the academic components. However, restructuring also led to greater individual investment in the overall process. The schools that did not need to restructure could immediately adjust their learning environment, but there is a sense that not having a complete overhaul of the school may allow teachers and students to revert quickly to previous teaching methods and performance assessments. To date, no direct evidence links school size and restructuring to any particular results. Further research should continue to look into the effects of restructuring school size on school and student outcomes. Does the investment in creating smaller school sizes have the expected benefit? Is there a point at which the complete redesign of a school has a greater impact in creating a college-going culture than when the school is already small? Are positive effects more quickly visible or longer-lasting in one setting versus the other?

- **Why did some WSA program outcomes improve dramatically versus the comparison schools used in the research?** Washington state is implementing many school reforms, so comparison schools may have been undergoing their own reforms. Graduation rates, college-going, and taking college entrance exams improved at all schools at approximately the same pace. However, WSA schools showed a large increase in the numbers of students taking more advanced courses that was not as sweeping in other schools. Is there an aspect of the WSA program that is instrumental in enrolling students in advanced courses (e.g., school reform efforts leading to increased numbers of advanced courses) that is not reflected in the comparison schools' reforms? What are the reasons for the difference between WSA and comparison schools in gaining better college preparation?

- **What are the differences in educational experiences between Achievers who initially enroll in a two-year institution versus a four-year institution?** While the number of students enrolling in a two-year institution is decreasing with each WSA cohort, there are still significant differences between those students and those enrolling in four-year insti-

tutions. Initial research shows that students who initially enroll in a two-year program are less likely to complete a four-year degree (Sedlacek and Sheu 2006). Early research suggests that these students have lower educational aspirations and take fewer advanced courses, so further exploratory analysis could clarify what factors led to these characteristics. If these differences are significant, what other measures could be integrated into the program to give students a greater chance of completing a four-year degree? Do these students have needs that WSA is not addressing?

- **What factors contribute to some Achievers choosing not to complete their degree or use their scholarship?** There are many documented reasons students do not persist in college, such as enrollment status and engagement in college life, but financial constraints are highly noteworthy. However, with five years of guaranteed funding for college, it seems counterintuitive that students would not complete their degree. While locating these students is more difficult than locating those who have stayed active with the program, it is important to understand the barriers that keep these students from completing a degree and how WSA can better assist such students. These questions would be similar to those on the characteristics of two-year versus four-year students. While some students may have chosen to attend an out-of-state or private institution, it is also important to understand the societal effects of students leaving Washington State, as one of the stated goals of the program is to develop a cadre of leaders for the state.

- **What are the best practices for providing mentorship?** Mentors provided many Achievers with necessary support and guidance throughout the entire college-going process. While some students had regular contact with their mentors and asked them for assistance in a variety of areas, others were not even aware that they had a mentor in college. Some students began lasting social relationships with their mentors, while others had minimal interactions and looked more for advice than for a growing connection. Mentors were originally meant to assist students with the college-going process, but some ultimately supported students with personal issues. The differences in types of relationships and questions asked a mentor require more research on how mentors influence Achievers. The results could then be used to improve mentor training. Does the number of interactions between the student and mentor have any noticeable effect on student outcomes? Is there a relationship between the types of advice students look for from the mentors and student outcomes? If so, what additional training might the mentors need so they can address the students' most common needs?

- **Are there other observed outcomes for students that affect society, such as lower crime rates and greater community engagement, in areas with WSA schools?** Research demonstrates that higher education benefits not only the individual, but society as a whole. It decreases reliance on public financial assistance, and it increases community engagement and civic participation (Institute for Higher Education Policy 2005). As college enrollments continue to increase because of the program and as students complete their college education, are there visible benefits within society? Is there a noticeable increase in voter participation or community volunteering? Is there a decrease in unemployment, crime, or accessing welfare? Has the program successfully developed leaders for Washington state, or are they leaving the area? Why or why not?

- **Are there aspects of the WSA program design that are more effective in preparing students for college, encouraging them to enroll in a four-year degree, and having them complete a four-year degree? How much stronger is the program's effect when all factors are combined rather than analyzed separately?** Researchers and advocates in the field of higher education agree that all aspects of the program design contribute to an increased rate of college enrollment and persistence. However, funding for all aspects of the program may not always be feasible if it is replicated by states or other private organizations. For this reason, it would be useful to understand the interconnections of the different features and whether certain aspects are more effective than others. It is possible to compare schools that received similar school reform money from the foundation but did not have the scholarship component. Looking at the different foci of each high school and stage of implementation, do some aspects stand out as more directly related to college entrance? If funding is not available for the entire program, what decrease in college enrollment would result from removing various components? What program aspect is most important to fund?

As additional research is conducted on the WSA program, practitioners may be able to use this program as a case study to be replicated and scaled up in other communities. The Bill & Melinda Gates Foundation is already replicating WSA in two historically impoverished neighborhoods of Washington, D.C. Through replication in more communities, the interaction of various aspects of the program can be more deeply understood and further refined. While comprehensive reform programs may not guarantee all low-income students access to higher education, developing a better understanding of the effects of programs like WSA can help improve efforts to develop a high school culture of college-going for more students in more schools.

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INSTITUTE FOR HIGHER EDUCATION POLICY
1320 19th Street, NW, Suite 400
Washington, DC 20036

202 861 8223 **TELEPHONE**
202 861 9307 **FACSIMILE**
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1320 19th Street, NW, Suite 400
Washington, DC 20036

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