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Director's Perspective

Growing Importance of Higher Ed for Economic Well-Being

Across the United States, students, families, and public universities are grappling with how to adjust budgets and expectations to meet financial shortfalls. University students eye taking on more debt. High school students may consider less expensive two-year colleges for their freshman year. Colleges ponder higher tuition to offset declines in public support and endowments.

Some experts argue that an economic downturn, even one less severe than what we have seen in late 2008 and the beginning of 2009, is exactly when higher education should be made more affordable and more accessible, especially for students from lower income families. The tuition costs, lack of readiness, and a deficit of information

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Differences in Higher Education: Investments, Costs, and Outcomes

Timothy Smeeding

Traditionally, Americans expect the nation's colleges and universities to assure higher education access to all youths with ability and motivation to succeed. This is part of the American dream. Yet, despite U.S. efforts to promote post-secondary schooling for youth from lower-income backgrounds, income-related gaps in access to higher education and in college graduation rates are large. Although resilience, luck, and persistence pay off for a minority of low-income children, the odds of completing four-year college degrees are increasingly stacked against them.

About 85 percent of eighth-grade students in the United States aspire to a college degree. However, in 2001, only 44 percent of high school graduates from the bottom quintile of the income distribution were enrolled in any form of higher education shortly after graduating high school. By contrast, almost 80 percent of those in the upper quintile were so enrolled. The high concentration in the nation's colleges and universities of youth from the top echelons of parental income and social class exists at all levels of post-secondary schooling, but is especially evident at the nation's best (most selective) colleges and universities.

Table 1 suggests that 3 percent of all enrollees in the top 146 four-year public and private schools — attended by 10 percent of all post-secondary students — come from the lowest socio-economic status quartile compared to 74 percent from the top quartile. In the 253 second-tier schools, in which 18 percent of all post-secondary students enroll, the numbers are not much better, with 7 percent of students coming from the lowest income quartile. Only when we get to community colleges do lower socio-economic status students enroll at rates near the top income quartile.

Timothy Smeeding is the Arts and Sciences Distinguished Professor of Public Affairs and director of the Institute for Research on Poverty at the University of Wisconsin–Madison. He joined the faculty in fall 2008.

This gap between high- and low-income students has been increasing during the last decades. According to the findings of David Ellwood and Thomas Kane, for students who graduated from high school during 1980–82, the overall rate of college-going was 80 percent for youth from the top income quartile of families, as against 57 percent for youth from the bottom quartile. Youth from the poorest families were concentrated in vocational and technical institutions, while those from the richest families tended to enroll in four-year colleges. Then, between 1980–82 and 1992, the overall college enrollment rate rose 7 percentage points, as Table 2 shows. While the enrollment rate for the highest-income youth increased

10 points, the rate for the lowest-income youth increased 3 points. In terms of attendance at four-year colleges, the gap between the highest- and lowest-income youth widened far more during this period. While the share of most disadvantaged youth enrolled in four-year colleges fell slightly (from 29 to 28 percent), that for the most well-to-do youth rose substantially (from 55 to 66 percent). The gap between the two groups widened from 26 to 38 percentage points.

Enrollment rates are but one of the differences noted here. Indeed, after a student enrolls, he or she must possess the finances and skills to stay in school and persist until graduation. But only 7 percent of all of those born into the lowest socio-economic status quartile in 1966-1970 graduated college within six years of high school, as compared to 50 percent of those in the top quartile who graduated by then. Of four-year college students, one study shows 26 percent of bottom quartile students graduate (within six years) vs. 59 percent of top quartile students. In another study of only elite schools, the same comparison is 44 vs. 78 percent enrollees who graduate. Moreover as seen in Table 1, most lower socio-economic status students, especially minorities, first enroll in two-year community colleges from which about a third go on to four-year colleges and universities.

Explaining the Differences

Why are high-income youth overrepresented in U.S. colleges? In America, youth must overcome several hurdles to succeed in postsecondary education, and the overall process is complex. Increasingly affluent parents with one or two children invest time, money, and influence to ensure their children's academic success from preschool through graduate school. For example, in 2000, parents at the 90th percentile of the income distribution had available an average of $50,000 to support each child, including his or her schooling, as against $9,000 per child for families in the 10th percentile. Students must also be well-prepared in elementary and secondary school. Yet, high schools in poor and minority neighborhoods tend to be of low quality and to lack the resources to prepare students adequately for postsecondary schooling. Rigorous courses in all fields, but especially mathematics, are rare in these high schools. Those schools, which send few students on to four-year baccalaureate degrees, are also short on useful and timely advice on college preparation. Students from low-income families are more likely than students from high-income families to overestimate the cost of college. Low-income students are less likely to understand the college application process, in part because their parents did not attend college themselves.

Adding to these hurdles, American four-year colleges and universities have become increasingly selective in their recruitment, targeting students with the highest qualifications who de facto are most often those from the highest income families. This trend in selection reflects a variety of forces, among them the desire to increase institutional rankings in prominent national publications.

All American colleges and universities charge tuition for enrolling and attending. These fees range from a few thousand dollars per year at two-year and community colleges to

Table 1. Socio-Economic Status of Entering Classes by College Selectivity

Each tier represents the quality (measured by selectivity) of four-year U.S. colleges and universities, with Tier 1 being the best (or most selective).

	Quartile of Students' Socio-Economic Status	
Selectivity Tier	Bottom	Top
Tier 1	3%	74%
Tier 2	7%	46%
Tier 3	10%	35%
Tier 4	16%	35%
Community Colleges	21%	22%

Source: Anthony P. Carnevale and Stephen J. Rose, "Socioeconomic Status, Race/Ethnicity, and Selective College Admissions," in *America's Untapped Resource: Low-Income Students in Higher Education*, edited by Richard D. Kahlenberg (New York: Century Foundation Press, 2004)

Table 2. Percentage of Students Who Enroll in Post-Secondary Education within 20 Months after High School Graduation, by Income Quartile

	Total	Two-Year and Vocational / Technical Colleges	Four-Year Colleges
Classes of '80–'82			
Bottom Quartile	57%	28%	29%
Top Quartile	80%	25%	55%
Total	68%	27%	41%
Class of '92			
Bottom Quartile	60%	32%	28%
Top Quartile	90%	24%	66%
Total	75%	30%	45%

Source: David T. Ellwood and Thomas J. Kane, "Who is Getting a College Education?: Family Background and the Growing Gaps in Enrollment," in *Securing the Future*, edited by Sheldon Danziger and Jane Waldfogel (New York: Russell Sage, 2000)

more than $30,000 per year at the best private universities. In addition, fees and other charges often add substantial amounts to the total cost of attendance. It follows that the financial means of the students and their parents also poses an obstacle to the presence of low-income youth in colleges, especially in four-year institutions.

Troubling is the fact that this enrollment and graduation gap between rich and poor kids has been increasing over time. College prices (in real terms, net of inflation) were nearly flat during the 1970s, but increased rapidly during the 1980s and 1990s, when tuition rose two and even three times as fast as the price of other consumer goods. This trend, together with the global growing inequality of family income in the United States, has raised the cost of attending college far more for students in low-income families than for those in well-to-do families. In the early 1970s, paying for a child to attend a public four-year college absorbed 42 percent of the income of a low-income family; by the 2000s, it took nearly 60 percent of their incomes. But for students from high-income families, the increase in income share was from 5 percent to 6 percent.

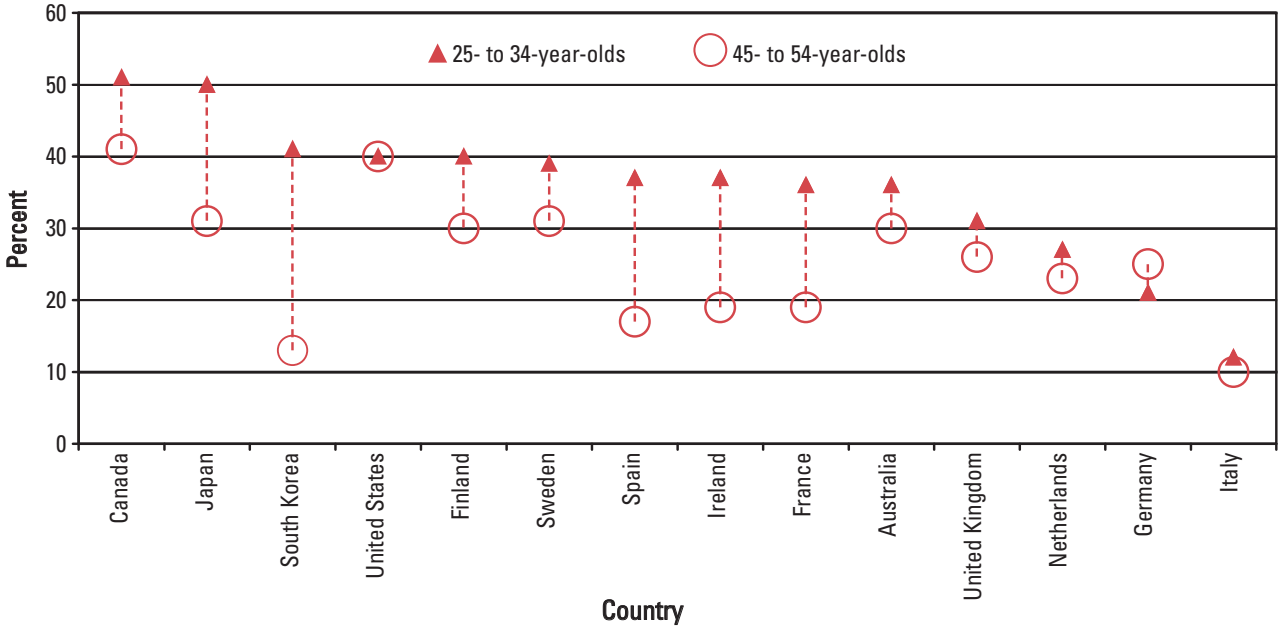
Merit-based aid has increasingly replaced needs-based assistance.

Several factors have led to these increases in higher education costs, and especially tuition. An important reason is the erosion in state government financial support for many of the largest U.S. public universities. States have tended to support spending on other priorities (medical care for low-income families, criminal justice, K–12 education) rather than providing additional support for public colleges and universities. As a result, these public colleges and universities have had to rely on some combination of increases in private giving, increased use of own-source funds such as endowments, reductions in costs and services, and increases in tuition and associated fees.

Although these cost increases have been partially offset by increased student financial aid, the evidence suggests that major disparities continue to exist. Moreover, the financial aid system to students has fundamentally changed. First, aid has increasingly come in the form of loans rather than grants. During the early 1980s, for example, grants made up 55 percent of student aid; by 2001, that figure was down to 41 percent. By 2001, loans to students and parents by the federal government totaled nearly $40 billion, more than five times the resources of the Pell grant program that was meant to be the primary source of assistance to low-income students. Although the maximum Pell grant covered about 60 percent of the cost of attending a four-year public institution in the early 1980s, it covered only about 40 percent by 2001. According to the College Board, financial aid for undergraduates and graduate students totaled more than $122 billion in 2003–04. Federal guaranteed loans account for about half of that total. Other federal support made up another 20 percent, with Pell grants constituting about three-quarters of that. State and institutional support made up the remaining 30 percent.

Moreover, needs-based assistance has been increasingly replaced by merit-based aid. This assistance is paid by both

Figure 1. Percentage of Population that Has Attained Post-Secondary Education, 2002



Sources: Dirk Pilat, "Canada's Productivity Performance in Comparative Perspective," *International Productivity Monitor* (Centre for the Study of Living Standards, Ottawa, Ontario, Canada, Spring 2005), pages 24-40; and Organisation for Economic Co-operation and Development, *Education at a Glance* (Paris: OECD, 2004)s, Table A3.3, page 71.

public and private colleges and universities directly to those applicants they desire to attract. Those students with the highest SAT scores and the best high school grades tend to secure this merit-based assistance. The consequence is that today, a substantial amount of federal subsidies (guaranteed student loans, Pell grants, tax subsidies) is made available to the students with the best records, and these students tend to come from the highest income families.

Evidence from Other Countries

At a time when links between U.S. students' economic origins and their attainment of higher education are strengthening, progress in increasing the number of U.S. college graduates has stalled. Indeed, there has been virtually no change in the past two decades in the share of cohort-specific youth who have earned postsecondary degrees. Figure 1 compares schooling for two cohorts — one aged 25 to 34, another aged 45 to 54, both observed in 2002 — in 14 industrialized nations. With one exception — the United States — the share of adults with postsecondary degrees has increased in every country except Germany, where policies changed in 2000 to guide more students into college preparatory course in response to the drying up of industrial apprenticeships.

Although the older U.S. cohort ranked second in the share of adults with a postsecondary degree (about 40 percent), the younger cohort ranked fifth. Four countries had gained parity with the United States or forged ahead, with Canada and Japan outpacing the United States by 10 percentage points. Another five countries had closed the gap to less than 5 percentage points. Only Italy trailed by more than 15 percentage points. If U.S. colleges and universities had been able to increase the rate of college graduation during this period, they likely would have been able to serve increased shares of youth from lower-income families, thus weakening the link between family economic origins and postsecondary attainment. But as we have seen, U.S. graduation rates are static.

The vast majority of post-secondary schools in the 30 countries that belong to the Organisation of Economic Co-operation and Development charge no tuition. In some European nations, students receive government subsidies if they attend college. Australia, Portugal, and the United Kingdom allow students to attend for free and then repay their tuition up to an amount based on their post-graduation earnings. Parents in almost all of these countries do not worry about the financial cost of attending colleges.

Policy Implications and Alternatives

Several policies could help increase access for students of lower-income families while maintaining the quality of higher education. A greater emphasis should be placed on college preparatory coursework during kindergarten through 12th grade. Indeed counselors could be deployed to make sure that those who want to go to college are enrolling in the proper courses, taking the right exams, and otherwise being well-informed about the process of applying to college. Better information about the "true" price of attending college vs. the "sticker " price (which is almost always discounted for low- and middle-income students) should be drilled into students and parents as early as ninth grade. Finally, the returns to added education (as demonstrated by the University of Wisconsin–Madison's Payback Calculator web site described in this issue of the *Policy Report*) must be widely known.

Once students apply, they must matriculate. Here the finances may still appear to be a major hurdle. Several solutions are available. The federal subsidies made available to students who attend very wealthy institutions could be capped as those universities are rich enough to assist their own students, poor and middle class. Greater federal (Pell grant) and state aid could be given to lower-income students and to the state-supported "non-flagship" schools where children from low-income backgrounds are more likely to attend. Finally, federal and state governments could redirect financial support to students instead of the money now provided to colleges and universities. And this direct assistance to students could be targeted toward those students with qualifications from lower-income families and take the form of grants more than loans.

As we have seen, admission is not a guarantee of success. Enrollment management policies must be deployed to help students stay in school if at all possible. Institutions that increase retention and graduate students in five to six years might be rewarded for such performance, while those that do not could be penalized by federal and state systems of higher education.

Finally students who graduate with substantial debt ought to be allowed to find ways to reduce them through national service commitments or by lower-cost payback systems like those in place in other nations. This would reduce the cost and debt burden for young adults who emerge from these schools.

Conclusion

Indeed, multiple interventions are needed to help students enter and complete college, especially students of lower socio-economic status. We are frankly losing the race between the demand for higher skills and the supply of well-educated young men and women (though the latter are doing a bit better). The gap between the salaries for higher education graduates and high school graduates is ever increasing in our nation. But these "'market signals'" alone are not enough to increase the supply of graduates. If higher education is to improve the chances for low- and middle-income children to succeed in economic and social terms, the current system must be dramatically redirected, and stronger efforts must be made at all levels of education from ninth grade on if we are to succeed. As several writers and philanthropists have noted in recent years, now is the time to make such an effort. ◆

The 'Payback' from a College Degree

Robert Haveman

Experts generally acknowledge that many young adults from low-income families have little insight into the long-term economic advantages inherent in a college degree. Indeed, higher education is an increasingly good investment. Median income in 2000 for Americans with a bachelor's degree or more was more than double that for high school graduates. By 2006 it was greater still — rising by another 10 percent. Higher education investments will only become more crucial, as more than 40 percent of all new U.S. jobs — especially high paying ones — are expected to require postsecondary degrees in coming decades.

This makes the completion of college degrees all the more important, especially for youths from lower income and minority families, many of whom do not find higher education to be accessible for several factors, including those Tim Smeeding outlines in this issue of the *Policy Report*. Evidence suggests that the change in the proportion of cohort-specific youth who have attained post-secondary degrees has been virtually nil in the United States during the past two decades.

Numerous studies document the difficulties a disadvantaged youth faces in making the transition to a productive adult life with a steady job, middle-class income, and a social support system. One impediment is that the higher education system confronting youths is exceedingly complex. Multiple types of public and private four-year campuses range in cost, size, and prestige. Nearly 1,200 two-year community colleges and vocational/technical schools feature open (non-selective) admission and relatively low tuition. They enroll nearly one-half of the 15 million college students in the United States, most of them from low- and middle-income families. Relative to four-year institutions, youths from lower income families see the two-year colleges as the primary option open to them.

Robert Haveman is John Bascom Emeritus Professor of Economics and Public Affairs and editor of the *La Follette Policy Report*. The payback calculator described in this article grew out of a larger research project in which a small group of La Follette School faculty began studying issues about college access among youths, especially those from lower income families. Former Chancellor John Wiley provided initial financial support for this project; additional funding was provided by the Mellon Foundation and the Annie E. Casey Foundation.

Despite the importance of a degree for financial security, young adults, especially those from low-income families, frequently do not know about the options open to them for attending college, nor are they aware of public and private financial support to help them afford college. This lack of information leads individuals to make inefficient educational choices, from their own and society's perspectives.

High tuition and fees at four-year public and private colleges increasingly discourage disadvantaged youths from pursuing college. The immediate costs appear more real and oppressive than the improved career trajectories and higher earnings that college-going confers; gains are realized only in the future. Students and parents may exaggerate the obstacles to pursuing further schooling, in part because of the difficulty in piercing the complex system of financial and other assistance designed to support enrollment.

Without quality information, disadvantaged youths — those from low-income families, single mothers, minorities, those whose parents did not go to college, and those who attended poor quality high schools — come to form America's next generation of people at the bottom of the nation's income distribution. Especially for these students, demonstrating the large financial returns and career gains from obtaining college degrees or certificates is likely to increase applications to and enrollment in college.

University of Wisconsin–Madison Higher Education Payback Calculator

The University of Wisconsin–Madison has taken the lead in closing this information gap, constructing an online Payback Calculator that was made public in fall 2008. The calculator web site, *payback.wisc.edu*, was developed as part of a project at the La Follette School of Public Affairs, where faculty are examining college attendance by youths from lower income families.

This web site helps parents and students see how obtaining a college degree is a worthwhile investment that yields returns over time that are substantially greater than the costs. Specifically, the calculator incorporates data from several sources, including the Census Bureau, the university, and published research studies. To forecast lifetime patterns, the calculator subjects these data to substantial statistical analysis. When these results are combined with information the user supplies, the calculator provides a tailor-made, personal-

ized answer to this question: How much better off financially are you likely to be if you graduate college, as opposed to stopping your schooling with a high school degree? The answers vary by the user's characteristics and account for three elements:

- cost of a University of Wisconsin–Madison degree;
- the approximate amount of financial aid the prospective student would receive; and
- expected lifetime earnings with and without a University of Wisconsin–Madison degree.

On average, annual earnings of a person with only a high school degree were $31,539 in 2005, the U.S. Census Bureau reports. For those with some college but no degree, average earnings were $37,135, while they were $40,588 for those with an associate's degree, and $50,944 for those with a bachelor's degree. However, the amount one can expect to earn in one's lifetime varies according to field of study, background, family income, and academic achievement. Being able to compare lifetime earnings with and without a degree and across fields of study can help students and their families better understand the value of a university degree in the long term.

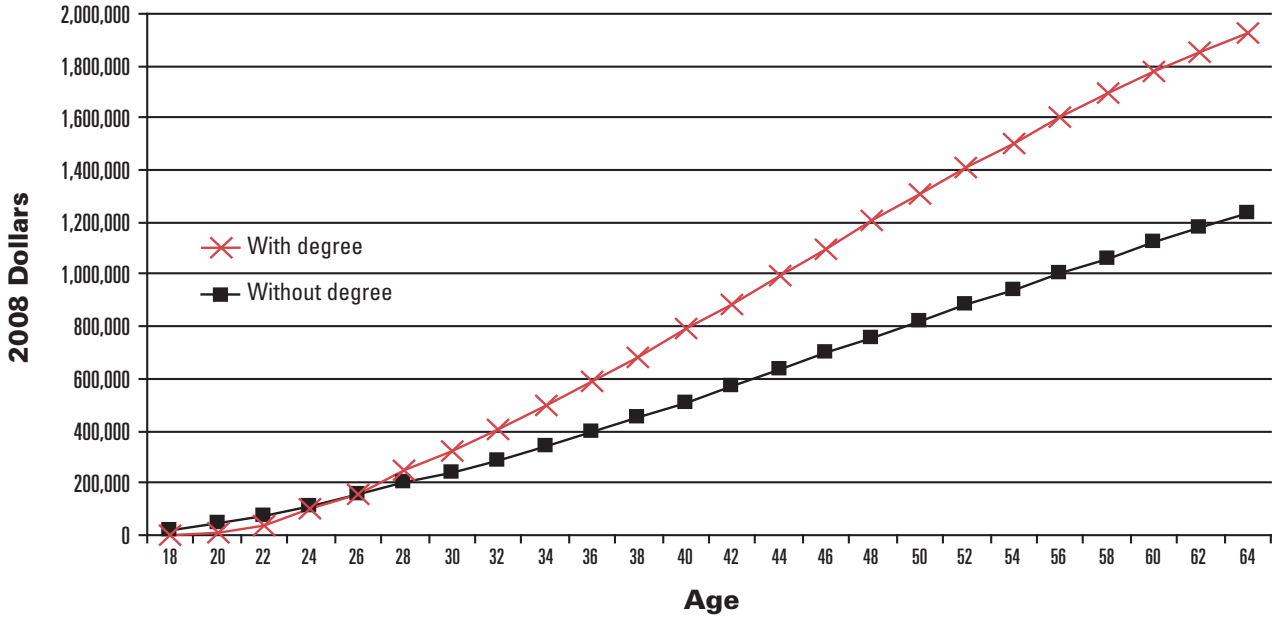
As such, the calculator illustrates the large economic payoff and career gains from securing a degree at the University of Wisconsin–Madison, gains that many parents, students, and high school counselors only dimly understand.

Users of the calculator (mostly potential students) provide information about their situations, including their race, gender, geographic location, parental income, high school grades, test scores, and their likely field of study should they enroll in college. Given this information, the calculator provides the user with a quantitative estimate of the costs and lifetime earnings benefits from graduating from the university, relative to stopping schooling at the high school level.

A person with a four-year degree can have an earnings payback of $200,000 to more than $900,000 in her or his lifetime relative to someone with just a high school diploma. The amount depends on the student's characteristics and the likely field of study that she or he chooses in college. The figures the calculator produces reflect the best estimate of the value of education in 2008.

For example, Figure 1 is a picture of the total earnings in 2008 dollars at each of a potential student's future ages, with and without a college degree. The student for whom the figure is calculated is a white female from a lower-middle-income Wisconsin family; she has high grades in high school and high test scores, and she would study political science at the university. The top curve shows her earnings with a University of Wisconsin–Madison degree, and the bottom curve indicates total lifetime earnings with only a high school degree. At age 65, when she is likely to stop working, the gap between the two curves shows the gain in total lifetime earnings as a result of earning a college degree. For this person, the lifetime earnings gain is about $650,000 — about $1.9 million with a University of Wisconsin–Madison degree minus about $1.25 million with only a high school degree. After taking into account the costs of attending the University of Wisconsin–Madison — nearly $20,000 per year — the calculator reveals that the overall financial payback is almost $300,000. This payback accounts for all of the components of the annual increases in earnings, the

Figure 1. Projected Total Lifetime Earnings for a White Female Political Science Major, with and without a University of Wisconsin–Madison Degree



costs of attending, and the financial aid that she is likely to receive.

Figure 2 shows the earnings pattern for an African-American male from out of state who has very high grades and test scores, and is from a low-income family; the student is assumed to study engineering while in college. In this case, the calculator shows the lifetime earnings gain to be about $1.4 million — about $2.7 million with a University of Wisconsin–Madison degree minus about $1.4 million with only a high school degree. The overall payback — taking account of costs and financial aid — is nearly $600,000.

Figures of this magnitude may play a role in convincing students to pursue further education after they graduate from high school. The information also may assuage concerns some parents have about their children investing what seems like a lot of money into a degree. They can see that the end product is not merely an academic pursuit but an investment that can have tangible, long-term financial impacts on their children's lives.

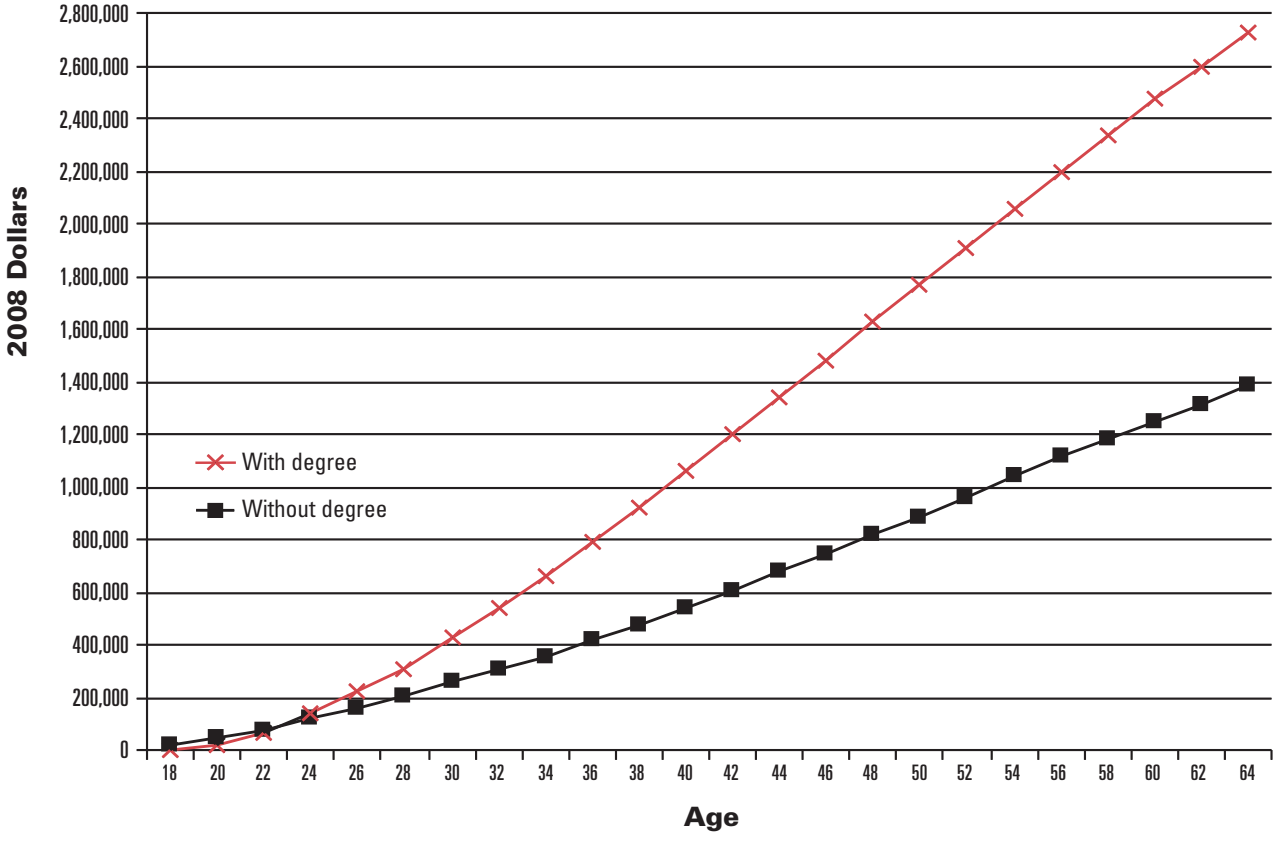
Looking Ahead

Work is underway to generalize this payback calculator so that any four-year college or university can make use of it and to develop a new calculator to estimate the payback from gaining a two-year college certificate or degree. Additional web pages will answer the question prospective students and their parents often ask: "How do I pay the up-front costs of attending college?"

Two-year campuses are becoming increasingly important as more students compete for space at four-year campuses. Two-year campuses can serve as a valuable gateway to attainment of bachelor's degrees as low-income and first-generation college students acclimate to university life. To help manage enrollment, the University of Wisconsin–Madison, has transfer agreements with the university system's 13 two-year freshman/sophomore campuses, the liberal arts programs at three technical colleges, and with the College of the Menominee Nation. Students can start their higher education careers at these smaller two-year campuses, then shift to the Madison campus.

A tool that lets students and their parents compare the benefits of a two-year degree to those of a four-year degree should prompt more young adults to continue their education and feel that the upfront costs will indeed pay off. Packaging these calculators with the information about options, costs, and financial aid should provide the information students need to apply and then enroll in college. ◆

Figure 2. Projected Total Lifetime Earnings for a Black Male Engineering Major, with and without a University of Wisconsin–Madison Degree



Accreditation as Self Regulation: Past, Present, and Future

John D. Wiley

Few people will argue that the accreditation of institutions of higher education is unimportant, but throughout the field, the details are so arcane and complex that the entire topic is confusing and controversial. When faculty and administrators are immersed in accreditation processes, we find it exceedingly difficult to see the forest for all the trees. But at the core, accreditation is a very simple concept: Accreditation is a process of self-regulation that exists solely to serve the public interest. By "public interest" I mean the interests of three overlapping but distinct groups:

- members of the general public in their personal health, safety, and economic well-being;
- government and elected officials at all levels in assuring wise and effective use of taxpayer dollars; and
- students and their families in "getting what they pay for": certifications in chosen fields that genuinely qualify them for employment and for the practice of their professions in a competent and honest manner.

Saying a program or degree or institution is "accredited" must convey to these publics that strong assurance that the program meets standards of quality and integrity that are sufficiently high to protect these legitimate interests.

Despite accreditation serving these public interests, other constituents have a stake in the process. These private interests include the accredited institutions, professional practitioners and their industry groups, and the accrediting organizations themselves. There is no automatic assurance that these private interests are always the same as the public interest, so self-regulation (accreditation) necessarily involves consistent and vigilant management of this potential conflict of interest. This conflict is inherent in the accreditation process because the general public, the government, and students do not have the technical expertise to set curricular and other educational standards, or to monitor compliance.

The bedrock principle and the highest priority for everyone involved in higher education (the institutions, the professional groups, the accrediting organizations, and those who recognize or certify the accreditors) should be and must be to manage these conflicts of interest in ways that are transparent and that manifestly place the public interest ahead of private interests. If we don't manage our conflicts well, rest assured one or more of our publics — the students, the government, or the public at large — will rise up and take care of it for us in ways that will be expensive, burdensome, poorly designed, and counterproductive. That would be in no one's best interest, not even in the public's.

Accreditation and the University of Wisconsin–Madison

Our system of self regulation, by and large, works very well, and many involved in accreditation wonder what more we could do to be held even more accountable. The accreditation process at the University of Wisconsin–Madison requires an enormous — and valuable — commitment of resources to the process of self-examination and accountability reporting.

Accreditation and self-study reviews form the central core of our institutional planning and quality improvement programs. In particular, the major two-year self-study conducted for our North Central Accreditation forms the basis for the campus strategic plan — the priorities, goals, and quality improvements we adopt for the following 10 years. As such, this is the most important and valuable exercise we undertake in any 10-year period, and most of the improvements made on campus in recent decades can be attributed to what we learned during these intensive self-studies.

To fulfill Board of Regents policy to review every degree program at least every 10 years, the University of Wisconsin–Madison evaluates about 40 programs every year. One full cycle of reviews involves nearly every academic official on campus. The university offers 403 degree or major combinations, not counting distinctions such as the bachelor's or master's of arts vs. science in the same field. In fall 2008, the campus listed 135 majors at the bachelor's level, 151 at the master's

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This article is a condensed version of a 2006 address **John D. Wiley** gave to the Council of Higher Education Accreditation when he was the University of Wisconsin–Madison's chancellor. Now a member of the La Follette School's faculty, he is teaching a public affairs course on science policy in the 21st century. He chairs the Council for Higher Education Accreditation's board and is a senior scholar with the Wisconsin Center for the Advancement of Postsecondary Education at the University of Wisconsin–Madison. The full version of his speech is available at http://www.lafollette.wisc.edu/facultystaff/wiley/CHEAtalk06.pdf.

level, 107 at the Ph.D. level, and 10 professional degrees, seven of which carry the term "doctor."

These internal reviews carry negligible out-of-pocket cost but make use of the equivalent of 20 full-time employees. In addition, the Wisconsin Legislature requires the campus to report annually on performance indicators, including time to degree, access rates, and graduation rates. Thirty-two special accreditors evaluate about 100 of our degree programs, plus the North Central Association accredits the entire university. One complete cycle of these evaluations costs about $5 million and the equivalent of 35 full-time employees. (Annualized, the costs are about $850,000 and six employees.)

Improving Accreditation

Partially because of public demand for better accountability and partially so we do a better job educating people, our accreditation system can be used to improve graduation rates, to weed out fraudulent schools, and to reduce degree inflation endemic to some professions.

Boosting graduation rates without compromising standards is one area where the accreditation process can help improve education around the country. The national six-year graduation rate of 50 percent for 2006 illustrates the waste of money and human capital. Either our nation is doing a disservice to underprepared or unqualified students by admitting them in the first place or campuses are not giving capable students the resources they need to graduate in four years. Even at schools like the University of Wisconsin–Madison, the graduation rate of 80 percent is unacceptably low if peer schools are doing better.

Now, if we were threatened with sanctions for failing to increase that number quickly to 85 or 90 percent, we could lower standards, fudge our numbers in defensible ways, or take other steps to meet the new goal, but this would fail the public interest. The accrediting organization's mission is to avert such a situation and to ensure the public interest is served. The public interest is in a better-educated public, not in superficial compliance with some particular standard. Accrediting organizations are in an excellent position to identify best practices and transfer them from one school to another, improving our entire system of higher education. If accreditors helped, encouraged, and required schools with graduation rates below the national average to set and meet targets at or above average, and to do so in meaningful ways, the public interest would be well-served.

Another area where accreditation can serve the public interest is to cut back on approving substandard, for-profit schools established solely to accept students with financial aid, which is given only to accredited programs. Accreditation must mean that each academic and professional program graduates people who are qualified to work in their fields.

"Protectionism" is another problem. The inherent conflict of interest in the reliance on experts to define and control access to the professions means that accreditors have a special burden to demonstrate that their standards serve the best interests of the public, not just protect the interests of the accredited programs or the profession. Chancellors and provosts get more complaints about protectionism and see more abuses in this area of accreditation than any other.

We see the ill effects of protectionism in degree inflation as more professions demand that practitioners hold master's or even doctoral degrees. In Wisconsin, we are under public and legislative pressure to produce more college-educated residents — more people with bachelor's, master's, and doctoral degrees. More students make good use of advanced placement credits and earn bachelor's degrees in three years. Since 1975, our average time to degree has dropped from 4.4 to 4.17 years. A time may come when we rationalize a three-year bachelor's program. The master's degree level already has more variation than any other. Indeed, a University of Wisconsin–Madison undergraduate who takes master's level courses can apply to earn a master's degree in public affairs with just a fifth year of study. Who's to say we couldn't rationalize some kind of four-year bachelor's-master's degree? The accreditation process would have to ensure the quality of these programs.

This phenomenon of degree inflation already exists, thanks to the professions themselves, especially the health professions, where, it seems, everyone wants to be called "doctor." I have no problem with professional societies and their accreditors dictating what a graduate must know to practice safely and professionally. I have a big problem, though, when they hand us what amounts to a master's-level curriculum and tell us the recipient of the resulting degree must be called a "doctor of X." This is a transparently self-interested ploy by the profession, and I see no conceivable argument that it serves the public interest.

Accreditation standards must focus on results rather than inputs or pathways to those results. They must protect the public interest while not unreasonably constraining the institution or holding accreditation status hostage for increased resources or status when the existing resources and status are clearly adequate. Reaccreditation cannot hinge on more faculty, more space, higher salaries, or a different reporting line. It must be based on whether a program is doing a good job and producing exemplary graduates. Resources should be irrelevant to accreditation status unless they are demonstrably below the minimum needed to deliver high-quality education and outcomes. Similarly, status considerations are out of place unless the current status or reporting line demonstrably harms the students or the public interest.

Everyone on a university campus and everyone who pays taxes to support public higher education has a huge stake in the quality, the integrity, and the credibility of accreditation. Accreditors must be seen as staunch defenders of the public interest and as independent, impartial, unbiased arbiters of quality and educational delivery. We need to make certain that the status of being an accredited program or institution really means something, and that the accreditors and accredited programs defend that status vigorously. ◆

Is the University of Wisconsin–Madison Becoming More Elite? A Partial Answer

John Witte and Barbara Wolfe

Concern is considerable in Wisconsin and other states that colleges and universities are becoming more elite; that rising costs and higher admissions standards mean universities increasingly serve only students from higher income families. This has led to calls for policies to increase enrollment of low-income students. The *Christian Science Monitor* reported in August 2008 that U.S. universities are under pressure to enroll low-income students to help the United States compete in the global marketplace. William Bowen, Martin Kurzwell, and Eugene Tobin note in their 2005 book, *Equity and Excellence in American Higher Education*, that students in the bottom quartile of family income make up 11 percent of elite college enrollment and receive no advantage from college admission programs; the authors call for an affirmative action program directed at high-achieving, low-income high school graduates to promote equal opportunity and increase economic growth.

To shed light on whether students from families with limited incomes have less opportunity to attend elite institutions today than in previous decades, we examine family incomes of University of Wisconsin–Madison freshman applicants and of those who are admitted from more than three decades. Understanding the profile at the University of Wisconsin–Madison, the state's top public university, provides insight on the specter of increasing elitism of premier public universities.

This study explores the accessibility of the University of Wisconsin–Madison for students from different socio-economic groups. It looks at how access has changed during the last three decades and whether the pattern differs for students from Wisconsin compared to those from outside the state. The findings are important given the national and state debates about financial aid.

Data on family income of freshman applicants to specific colleges and universities are difficult to acquire. The most common sources are the questions students answer when completing ACT or SAT examinations. These responses from 17- and 18-year-olds are generally viewed as quite inaccurate; evidence from other studies suggests that students do not have accurate information on family income. Universities could include income information on application forms, but most, including the University of Wisconsin–Madison, do not. The federal financial aid application seeks detailed income and asset data, but only students applying for financial aid complete those forms. Moreover, these applications have been used only since 1992, which limits the time period an analysis can cover.

To acquire such data, universities could survey samples of applicant families. This would be costly. How accurately families would respond is not clear, and they might view a survey as intrusive. A second method, the one we employ in this study, is to match the applicant's address and zip code to comparable census data on family income.

As a state-based institution, the University of Wisconsin–Madison gives priority to resident students, who face a far lower "ticket price" (tuition) than those from out of state. In addition, a special agreement gives students from Minnesota a reduced price. All other students pay higher out-of-state tuition. For this reason we analyze freshman applicants as a total population, and then separately as Wisconsin, Minnesota, and other out-of-state applicants.

Background

The increasing proportion of high school graduates who have gone to college since the end of World War II suggests that opportunities exist for nearly all people interested in attending. Today approximately 64 percent of high school graduates attend some form of higher education. But not all who are interested are able to attend high-quality institutions, which, on average, provide better opportunities and higher rates of return to their students. Several studies using national data have found that inequality of access to higher education among socio-economic groups has not diminished during this period.

Political scientist **John F. Witte** and economist **Barbara Wolfe** are former directors and longtime faculty members of the La Follette School of Public Affairs. Their research was funded by former University of Wisconsin–Madison chancellor John Wiley and the Mellon Foundation. They thank Haixi Li, Tommy Winkler, Clare Huhn, Joanne Berg, Bill Buckingham, and Jocelyn Milner for their help in putting together and working with the data set. A longer version of this paper is available from the authors.

A few studies address trends in access by family income for somewhat earlier and shorter periods of time than does our study. For example, a 2004 study of access to the top 10 percent of institutions of higher learning from 1985 to 2000 used data from the Cooperative Institutional Research Program's (CIRP) entering Freshman Survey, an annual assessment conducted for four decades. The authors found that the average income level of freshmen entering these top tier colleges was indeed increasing. Another recent study examined whether the existence of two-year colleges reduced the number of high school graduates attending more prestigious institutions. The study, which used student information obtained from the National Education Longitudinal Study (NELS 1988–2000) and a subset followed for the Postsecondary Education Transcript Study (PETS) data, found that two-year colleges increased access and did not lead to high-achieving students from more disadvantaged backgrounds attending more prestigious four-year institutions. Again, income data are based on survey answers, but in this case the author combined them with data on education and occupation to form a measure of socio-economic status. These findings are limited in their usefulness because their data sets (CIRP, NELS, and PETS) include only enrolled students and are based on surveys filled in by students who report their family income. The data sets are also limiting in terms of historical analysis.

Findings in other studies are limited in their usefulness because the data sets include only enrolled students and are based on survey answers from students who report their family income.

Our Approach

The key constraint to addressing the question of whether prestige universities or a particular university has become more economically elite is the lack of accurate measures of family income. This information deficit also limits understanding of whether the patterns of applications and acceptances have become more elite over time.

To adjust for the lack of data, we use census block data as a source for family income of all applicants. We do so for a relatively long period of time, 1972-2007. This makes our study unique in the long time period covered and in the ability to address whether the incomes of applicants and of those accepted have changed during these three-and-a-half decades. We also explore the role of income in the admissions process and how it has changed over time.

Procedures

After learning about the availability of student applications to the University of Wisconsin–Madison back to 1972, we met with staff of the campus' Applied Population Laboratory and found that these applicants could be matched to census block data for each year. As subsets of census tracts, which are designed to be homogeneous relative to living conditions and socio-economic status, census blocks are the smallest geographic and population groups available from the U.S. Census Bureau.

For each applicant with a home residence in one of the 50 states, the Applied Population Lab matched the home address as reported on the initial university application to the census block. We used the median income from the matched census block to represent an applicant's family income, drawing on the 1980, 1990, and 2000 censuses in this manner: For applicants from 1972 to 1980, we matched their home addresses to the 1980 census data. For those from 1981 to 1989, we matched the home addresses to the census block for the 1980 and 1990 censuses. For the 1990 applicants we matched only to the 1990 census. For applicants from 1991-1999, we matched home addresses to the 1990 and 2000 censuses, while for applicants from 2000 on we matched home addresses to the 2000 census blocks. We converted (inflated) all census block median incomes to 2006 dollars. We then interpolated median block incomes for all those with two census block matches to weight the median income to best represent their block income in the year of application. For example, for a 1981 applicant, we weighted the 1980 census block median income by 0.9 and the 1990 census block median income by 0.1 and summed these values to get a weighted block median income.

Matching Results

We matched more than 90 percent of all U.S. resident applicants. That is, we have family income for more than 90 percent of all U.S. applicants to the University of Wisconsin–Madison from 1972 to 2007 based on census block data. Given the definition of income used and the design of census blocks, we think of these values as akin to some combination of permanent income (average income of the family over the long term) and community income (the average income of families in a homogenous area) for each applicant. The lowest percentage of matches was in the first year, 1972-73, for which we matched 87 percent of the applicants. The smallest applicant pool was the next year (1973-74) for which we had 16,730 applicant files. The annual average number of matched files was 22,116.

In addition to estimating family income for all applicants, we divided the sample into Wisconsin residents, Minnesota residents, and residents from all other states. Wisconsin residents are given priority on University of Wisconsin–Madison admissions and face lower tuition. Thus part of our analysis is to ask whether the practice of encouraging Wisconsin students to apply and attend the university has maintained an

applicant pool that represents the state's income distribution. We answer this by comparing the income of Wisconsin applicants to the state's median income during this time period. We compare the income of applicants from Minnesota to their state's median income to determine whether lower tuition has led to an applicant pool that is representative of Minnesota's income distribution. For applicants from all other states who face the full out-of-state tuition, we compare the income of this pool of students to median U.S. income. We expect a priori this latter group to become more elite over time.

Finally, since the question of whether applicants have become more elite is really one of distribution in addition to the average, we examined trends in the incomes of families at the 10th, 25th, 50th (median), 75th and 90th points in the distribution over time. We lined up all applicants from Wisconsin, Minnesota, and other states according to family income and selected applicants at these points in the distribution for each year.

Findings

We look at three areas, the median family income of freshman applicants to the University of Wisconsin–Madison, relative family income, and admissions rates over time.

Median Income of Applicants' Families

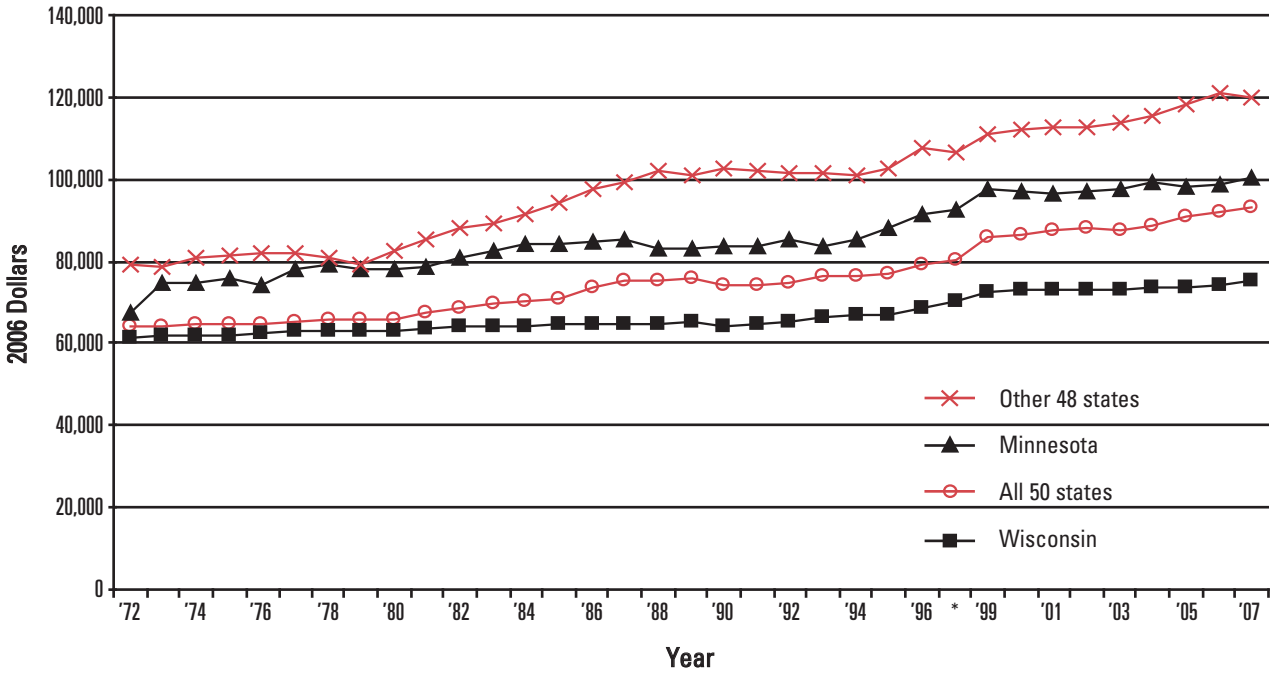
We present our estimates of real median family income of University of Wisconsin–Madison applicants in Figure 1. The graph portrays the real median income for all freshman applicants and for those from Wisconsin, Minnesota, and other parts of the United States. Two major points are apparent. First the real income levels of all families applying to the university have increased over time. Table 1 highlights this for the end points from 1972 to 2007. Second, we see that Wisconsin applicant family income has clearly increased less than the incomes of applicants from Minnesota or other parts of the United States. Wisconsin applicants' real income has risen about 22.5 percent during these 36 years while applicants from Minnesota post increases of 40.3 percent, and those from elsewhere see 49.9 percent. The increases in Minnesota income relative to Wisconsin occurred during the mid-1990s. Up until that time applicants from the two had similar incomes, close to the U.S. median state income. How-

Table 1. Real Median Income of All Freshman Applicants

	Wisconsin	Minnesota	Other States
1972	$61,589	$67,340	$79,006
2007	$75,086	$100,342	$119,717
Increase	21.9%	49.0%	51.5%

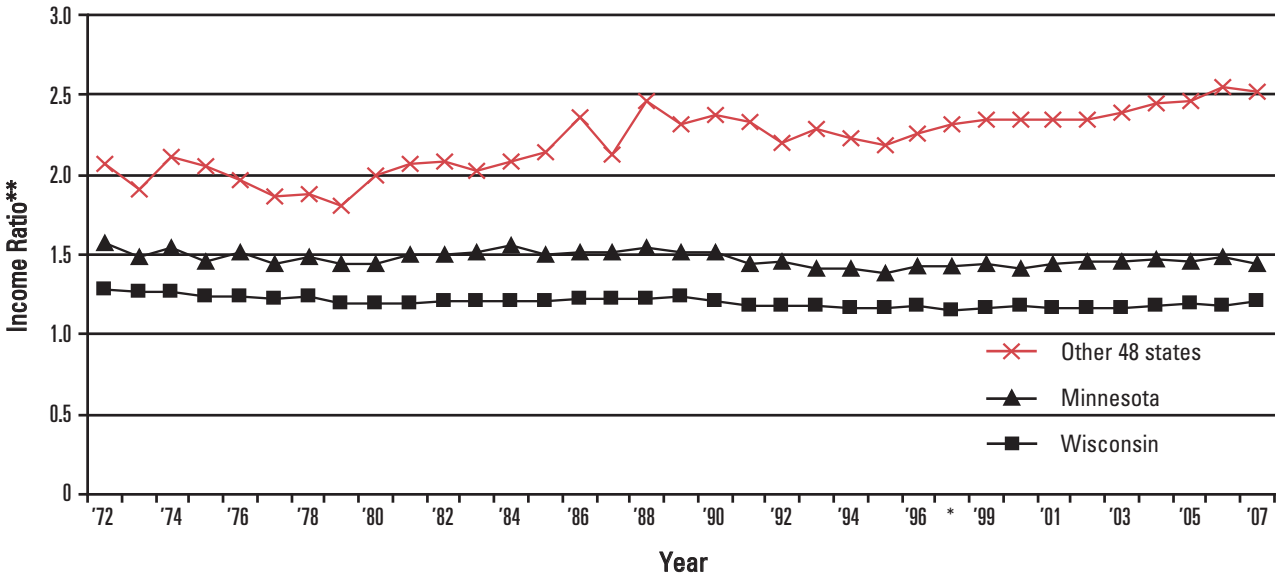
Note: All figures are in 2006 dollars.

Figure 1. Real Median Income of Freshman Applicants' Families



* Note: Admissions data for 1998 are unavailable.

Figure 2. Relative Income of Freshman Applicants' Families



* Admissions data for 1998 are unavailable.

** Income ratio is determined by dividing the applicants' median family income by the overall median family income for the respective state.

ever, since that time, Minnesota income has increased relative to the national average, while Wisconsin income has considerably declined.

Relative Income

Although the changes in real income of applicants must be understood, those incomes must be put in the context of income growth within the state or nation. To do that we adjust the real income figures against the average income in the respective state or nation for applicants from states other than Wisconsin and Minnesota. We show the results in Figure 2.

As expected, and indicated by ratios above 1.0, the relative incomes of families with students applying to the university are higher than the respective average incomes. Beyond that result however, Figure 2 illustrates three important results. First, Wisconsin applicants clearly have the lowest relative family incomes at every point in time. Applicants from Wisconsin have incomes 1.2 to 1.3 times higher than the average Wisconsin family. Second, these proportions are considerably lower than those for applicants from outside Wisconsin. Minnesota applicants have approximately 1.5 times more income than the average Minnesota family. And family incomes for students from other states are much higher than the national income average that is used as their relative base. Over these years, their income averages 1.8 to 2.5 times more than the average U.S. family. Third, the relative incomes in Wisconsin have actually fallen slightly over the 37 years of this study; Minnesota incomes have remained approximately the same; but out-of-state relative incomes have clearly gone up over time, indicating that more well-off, out-of-state families are applying to the University of Wisconsin–Madison.

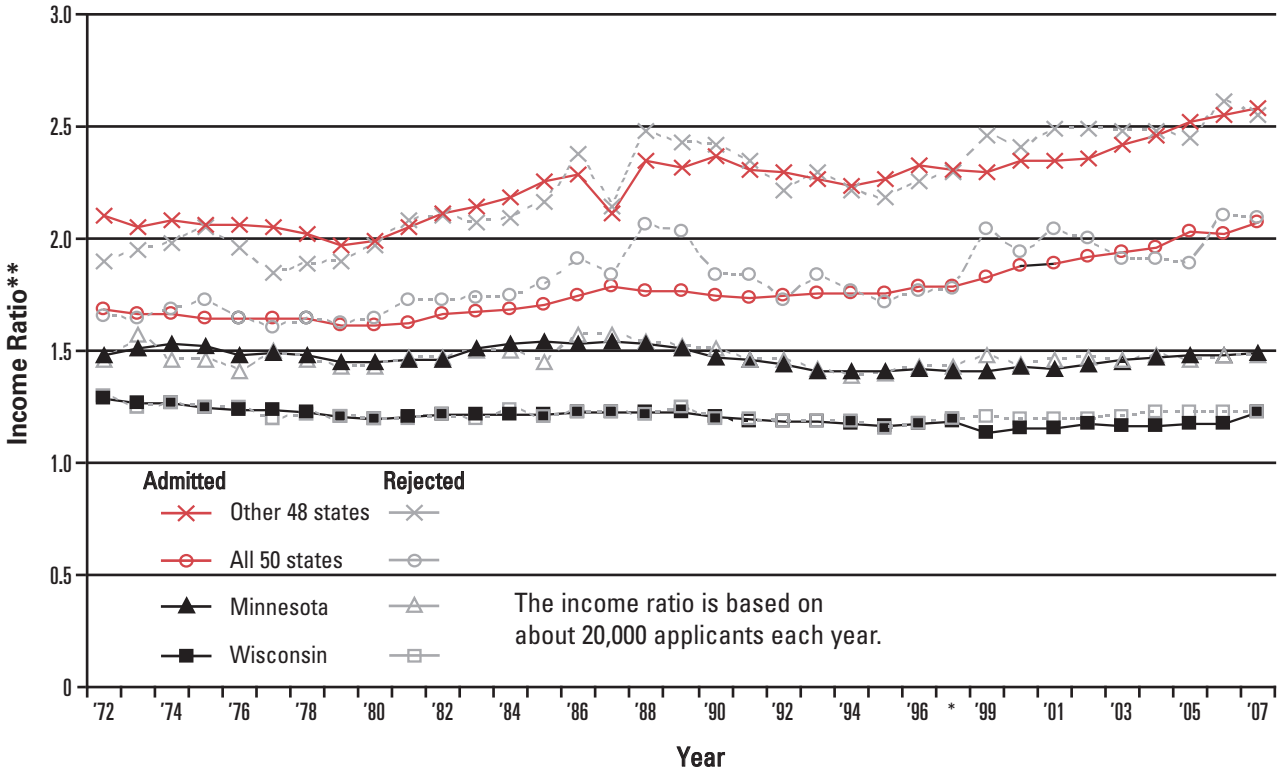
More well-off, out-of-state families are applying to the University of Wisconsin–Madison.

Comparison of Family Incomes for Those Admitted and Rejected

Another important issue is whether major differences in income exist between those who apply to the university and those who are admitted. (Equally as important may be the distinction between those admitted and those who ultimately enroll, but complete historical data are not available. We plan to use data from 1999-00 to 2007-08 to explore this.) To put the issue bluntly, does family income matter in the decision to admit students to the University of Wisconsin–Madison? The simple answer, for all categories of students, is no.

The data to arrive at this conclusion can be presented in a number of ways. In Figure 3 we compare over time the relative incomes of those who apply and those who are admitted. The results are striking in their similarity for all applicants, and for students coming from different states. For each pair of lines, the closer the lines are to each other, the greater the parity in admissions. (The pairs follow the relative incomes already discussed and depicted in Figure 2.) In a few years, higher income families seem to have higher rates of acceptance, but the reverse is also true. Overall, the lines are very close together, indicating that family income is not a factor in admissions.

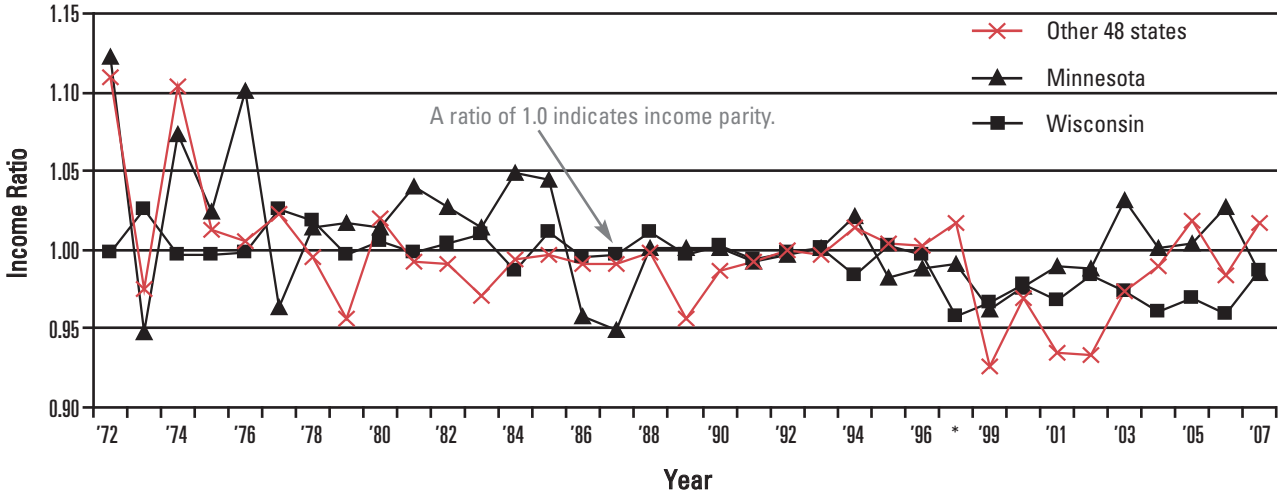
Figure 3. Relative Income of Admitted vs. Rejected Freshman Applicants' Families



* Admissions data for 1998 are unavailable.

** Income ratio is determined by dividing the applicants' median family income by the overall median family income for the respective state.

Figure 4. Income Ratio of Admitted vs. Rejected Freshman Applicants' Families



* Admissions data for 1998 are unavailable.

We also looked at data on real incomes for our three groups of applicants, breaking down real incomes for different points in the income distribution to see if, for example, the very well off (the top 90 percent of Wisconsin income applicants) have higher admission rates than those at the lowest incomes (10 percent). The conclusions do not change. Among all applicants, from 1972 to 2007, a family's income does not systematically influence whether the University of Wisconsin–Madison admits a student.

Another way to depict these numbers is to display the ratio, for each group, of those admitted to those who applied to the university. Ratios of 1.0 indicate parity. As can be seen in Figure 4, although the first few years seem to move around more than those years after 1977, essentially all of these ratios are very close to 1.0, indicating there is no consistent effect of family income on admission decisions. Other statistical analyses also show that family income never has a systematic, significant effect on the probability of being admitted.

Admission Rates Over Time

A final aspect of this study describes the increasing difficulty of being admitted to the University of Wisconsin–Madison. The decline in the probability of being admitted is significant. In the earliest years, the university accepted approximately 90 percent of those who applied. A rough rule at the time was that any student in the top half of her or his graduating class would be admitted. There were few high school course requirements that most students would not fulfill through the ordinary pursuit of the high school diploma.

That began to change around 1980, and the percentage of applicants admitted, with some wavering, continues to decline. In the last several years, the percentage has gone below 70 percent to 66 percent and 62 percent in 2006 and 2007 respectively. Nevertheless, as we have seen, even as admission became more selective, income did not enter the admissions process.

Conclusion

Wisconsin policymakers can take heart that potential freshmen from low-incomes families are continuing to apply to the University of Wisconsin–Madison and are not being denied admission to the university on the basis of their family income. During the last 37 years, the income of applicants relative to the median income of the state has not changed so high school students from lower income families are *not* being discouraged from applying. The same may be true of high school students from Minnesota but the increase in Minnesota's median income means that on average, applicants are from higher income families than in the past. The increase in family income of applicants is concentrated among students who apply from other states. But for all applicants, income has not played a role in admissions — not in 1972, in 1985, or in 2007 or any year in between. ◆

Director's Perspective

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and support are barriers that can keep some students from applying. U.S. students also face impediments in completing four-year degrees. Fifty-nine percent of whites who start finish their bachelor's degrees, while 41 percent of African Americans and 47 percent of Hispanics graduate, the National Center for Public Policy and Higher Education reports. Overall U.S. college completion rates have not improved significantly in recent years.

Yet at the same time, the real wages paid to high-skilled and highly educated workers have been increasing, while the real wages paid to low-skilled and less educated workers have been decreasing. And the demand for college-educated workers will only grow, with more than half of all jobs and 22 of the 30 fastest growing careers requiring at least some college, the Bill and Melinda Gates Foundation reports. Just one year of education beyond high school plus a credential can increase lifetime earnings by as much as 15 percent.

Researchers, politicians, and social commentators have all weighed in on what it will take to increase the education and skills of coming generations of U.S. workers in ways that will better prepare them to compete for the most desirable jobs. Nobel Prize-winning economist James J. Heckman, for example, suggests that focusing policy reforms on formal educational institutions neglects the critical role of families and firms in fostering skill development and the ability to succeed. He argues for investing more in the very young to improve basic learning and socialization skills, recognizing that without public intervention, these

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The Robert M. La Follette School of Public Affairs
University of Wisconsin–Madison
1225 Observatory Drive, Madison, WI 53706
(608) 262-3581
policyreport@lafollette.wisc.edu
www.lafollette.wisc.edu

Robert Haveman.....Editor
Karen Faster.....Publications Director

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The Robert M. La Follette
School of Public Affairs
University of Wisconsin–Madison
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Madison, WI 53706

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investments are likely to be very uneven:

"Children whose parents have higher income have access to better quality primary and secondary schools," Heckman writes in *Research in Economics*. "Children's tastes for education and their expectations about their life chances are shaped by those of their parents. Educated parents are better able to develop scholastic aptitude in their children by assisting and directing their studies. The influences of family factors that are present from birth through adolescence accumulate over many years to produce ability and college readiness."

Another part of the problem is that high school students, especially those from poorer families or whose parents did not attend college, may not understand the difference a college education can make to them — economically, at the minimum. Persuading a student and family that investing in a college degree makes an enormous difference in each student's lifetime earnings can be difficult when they have no relevant experience to bear that out and face an annual tuition bill that is one-fourth their family's annual income. A good job straight out of high school may seem a safer bet.

As this issue of the *La Follette Policy Report* outlines, Robert Haveman and the University of Wisconsin–Madison are taking on this information deficit with the Payback Calculator. This web site lets high school students input their demographic background and possible field of study in college to see what they are likely to earn with and without a four-year degree from the university. This is just one step the campus is taking to deliver better information to potential freshmen and to improve the degree completion rate.

A new study by John Witte and Barbara Wolfe addresses a common concern that freshmen from wealthier families are privileged in gaining access to higher education. Indeed, Timothy Smeeding's discussion of the relationships between college attendance and socio-economic status notes that 3 percent of all enrollees (in the top 146 U.S. four-year public and private schools) come from the lowest socio-economic status quartile compared to 74 percent from the top quartile. Witte and Wolfe show, however, that this is not the case at University of Wisconsin–Madison. Their analysis of campus admissions and census data finds family income does not affect the decision to admit a student.

Having convinced students to apply and then admitting the best of those, the university next needs to persuade them to enroll. Part of this pitch is ensuring that the academic programs are top-notch. This is where the accreditation and self-review processes come in, as John D. Wiley explains. They assure the general public, including students and their families, that university programs are of high quality and indeed will have a valuable payback and produce highly educated members of the work force.

To compete globally, the United States will need better trained workers. The United States now ranks 10th in the world for the percentage of adults ages 25-34 who have an associate's degree or more, the National Center for Public Policy and Higher Education reports.

Smeeding compares U.S. graduation rates to those of other countries and describes how governments in Europe and Australia support students in pursuit of higher education. He suggests policies to improve access, finance and degree completion in the United States.

The tools and policy suggestions in this issue of the *Policy Report* offer valuable methods and insights as federal and state governments wrestle with the ramifications of the recession and how it will affect individual debt, employment rates, individual income, and higher education funding, access, and accountability. Clearly, they suggest that as policymakers think about how best to allocate resources to higher education and to other programs intended to set young children on an early trajectory toward high levels of education and skills attainment, perhaps as part of a federal economic stimulus package, they should prioritize funding for programs that improve preparation for and access to higher education, reduce barriers to financing education costs, and increase graduation.