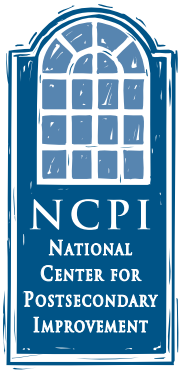

Reinforcing Stratification in American Higher Education: Some Disturbing Trends

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Introduction

The finance of higher education in the United States has undergone very considerable changes in the last decade. The period of the late 1980s and early 1990s was one of fiscal stringency for both state and federal governments. During that period, state governments, still by far the most important providers of public funding for higher education, decreased substantially the share of higher education revenues they contributed. During the same period, the federal government, under the pressure of budget agreements that imposed severe limits on discretionary spending, shifted their support for higher education dramatically in the direction of support for federal loans.

During the last few years, fiscal pressures have eased, at least temporarily, at both state and federal levels, as a prolonged period of economic expansion has enriched state coffers and allowed the federal government to eliminate its decades-long struggle with large budget deficits. In response to this easing of fiscal constraints, both the federal government and a number of states have begun once again to expand their investments in higher education. The expansion has not, however, been a simple reversal of the changes from the previous decade. The federal government has poured most of the added resources it has contributed into new federal tax credits for higher education. States, which during the earlier period of stringency, cut back on both subsidized tuition and means-tested aid programs, have shown little interest in expanded investments in need-based student aid, instead focusing their new spending on tuition reductions and on aid programs that, like Georgia's Hope Scholarship, avoid means testing. Thus, between academic years 1995-96 and 1997-98, the real increase in state government spending on need-based aid was 7.8 percent, while the real increase in non-need-based aid was 34.2 percent. (*Chronicle of Higher Education*, May 7, 1999, and April 11, 1997.)

Overlaid on this changing dynamic of government support has been considerable change in the pricing and financial aid policies of colleges and universities themselves. Private institutions have increasingly sought to 'leverage' their own aid dollars by offering more competitive aid packages to students who can themselves "bring something to the table," either financially or through attractive academic characteristics. The resulting bidding wars have tended to retarget institutional aid resources toward families with greater ability to pay. Public colleges and universities contribute fewer dollars toward institutional aid, but exhibit similar trends.

The net result of this decade of change is that the American system of finance for higher education appears poised to enter the new millennium with a set of programs and policies that is highly responsive to the demands of middle- and upper middle-income families for help, but much less well equipped to respond to the needs of lower-income families for assistance with their college investments.

In this paper, we attempt to accomplish three things. First, by extending our earlier quantitative work on the financing of American higher education, we aim to document (and where necessary to qualify) the simple story told in the preceding paragraphs. Second, again through extending and updating earlier work, we examine the relations between these financing trends and trends in the enrollment patterns of American high school students—patterns in both where and whether they attend college. This analysis will help us to gauge how well the emerging trends in financing policy line up with indicators about where financial support is most needed and would be most effective in promoting worthwhile educational investments. The last part of the paper moves from these empirical considerations toward some commentary on the political economy of the developments we document: what forces appear to be leading public policy in the directions we identify, and what circumstances might produce a different, and in our view, a more favorable, outlook for financing policy?

Financing Higher Education: Changes Over Time

Tables 1 and 2 present a long-run view on college finance, containing data from selected years between 1939 and 1996. Table 1 shows how colleges' principal sources of revenue have changed over the past half-century. For public institutions, state and local government spending has been the primary revenue source (accounting for more than half of revenues), with tuition providing a much smaller share (no more than a quarter of revenues). On the other hand, for private institutions, tuition has by far been the principal source of revenue (accounting for between 43 percent and 57 percent of revenues).

This long view allows us to put recent changes in historical perspective. For public institutions, the contribution of state and local government spending has been declining for more than a decade, reaching its lowest post-war level (51 percent) in the most recent academic year for which we have data. While there has been a slight increase in the contribution of gifts and endowment earnings (from 3 percent to 6 percent), a much more important change has been the increased role of tuition (from 13 percent to 24 percent). Tuition at private institutions has also taken its largest role in forty years (going from 45 percent in 1955-56 to 55 percent in 1995-96), as the contribution of federal funding has declined to its lowest level since the late 1950s (falling from a peak of 30 percent in 1965-66 to 17 percent in 1995-96).

The pattern here is clear: tuition has been replacing government spending at both public and private institutions. Indeed, the pattern of revenue shares in the 1990s looks more like that of the late 1940s than of any intervening decade.

Table 2 reports revenue shares for the major categories given in Table 1, averaged over public and private institutions, and also breaks down gross tuition by its sources—showing the share paid by families directly and the shares paid by various forms of student aid.

Table 1. Shares of Higher Education Revenue, by Source, by Sector, Selected Academic Years, 1939-1996 (%)

Year	Gross Tuition	Government		Gifts & Endowment Earnings	Other
		Federal	*State & Local*		
Public Institutions					
1939-40	0.20	0.13	0.61	0.04	0.01
1949-50	0.25	0.13	0.56	0.03	0.03
1955-56	0.13	0.17	0.62	0.04	0.04
1959-60	0.13	0.21	0.59	0.04	0.03
1965-66	0.14	0.23	0.54	0.03	0.05
1969-70	0.15	0.19	0.57	0.03	0.05
1975-76	0.16	0.18	0.61	0.03	0.02
1979-80	0.15	0.16	0.62	0.04	0.03
1985-86	0.18	0.13	0.61	0.05	0.03
1989-90	0.20	0.13	0.58	0.05	0.04
1991-92	0.22	0.14	0.55	0.06	0.03
1992-93	0.24	0.14	0.53	0.06	0.04
1993-94	0.24	0.14	0.52	0.06	0.04
1994-95	0.24	0.14	0.52	0.06	0.04
1995-96	0.24	0.14	0.51	0.06	0.04
Private Institutions					
1939-40	0.55	0.01	0.03	0.38	0.03
1949-50	0.57	0.12	0.04	0.23	0.05
1955-56	0.45	0.18	0.02	0.28	0.06
1959-60	0.43	0.25	0.02	0.25	0.05
1965-66	0.43	0.30	0.02	0.18	0.06
1969-70	0.44	0.26	0.03	0.19	0.08
1975-76	0.48	0.25	0.04	0.19	0.04
1979-80	0.47	0.25	0.04	0.19	0.05
1985-86	0.50	0.22	0.03	0.19	0.06
1989-90	0.51	0.21	0.04	0.18	0.06
1991-92	0.53	0.20	0.04	0.17	0.06
1992-93	0.54	0.19	0.04	0.17	0.06
1993-94	0.55	0.19	0.04	0.17	0.06
1994-95	0.55	0.19	0.03	0.17	0.06
1995-96	0.55	0.17	0.03	0.18	0.07

Notes: 1995-96 data are preliminary. Figures do not include revenue from auxiliary enterprises or from sales and services. Government figures do not include student aid (which is included under gross tuition).

Source: See McPherson and Schapiro 1991A, p. 21, plus, for data after 1986, Table 325 (p. 349) and Table 326 (p. 350) of the *Digest of Education Statistics 1998*, National Center for Education Statistics (1998).

Table 2. Shares of Higher Education Revenue, by Source, Selected Academic Years, 1939-1996 (%)

		Tuition Paid By:				Nontuition Revenue:		
				Government:				
Year	Gross Tuition	Families	Institutions	*Federal*	*State*	Federal	State & Local	Gifts & Endowment Earnings
1939-40	0.37	0.35	0.02	0.00	0.00	0.07	0.33	0.21
1949-50	0.40	0.37	0.03	0.00	0.00	0.12	0.32	0.12
1959-60	0.26	0.22	0.03	0.00	0.01	0.23	0.34	0.13
1965-66	0.26	0.21	0.04	0.00	0.01	0.26	0.33	0.09
1969-70	0.25	0.20	0.04	0.00	0.01	0.22	0.38	0.08
1975-76	0.26	0.16	0.04	0.04	0.02	0.20	0.43	0.08
1979-80	0.26	0.14	0.04	0.06	0.02	0.19	0.43	0.09
1985-86	0.29	0.17	0.05	0.05	0.02	0.16	0.41	0.10
1989-90	0.31	0.19	0.05	0.05	0.02	0.16	0.37	0.10
1991-92	0.34	0.22	0.05	0.05	0.02	0.16	0.35	0.10
1992-93	0.35	0.23	0.05	0.05	0.02	0.16	0.33	0.10
1993-94	0.35	0.22	0.06	0.05	0.02	0.16	0.32	0.10
1994-95	0.35	0.23	0.06	0.04	0.02	0.16	0.32	0.10
1995-96	0.36	0.24	0.06	0.04	0.02	0.15	0.31	0.11

Notes: 1995-96 data are preliminary. Figures do not include revenue from auxiliary enterprises or from sales and services. Both veteran's educational benefits and social security benefits paid to qualified college students are excluded from federal tuition payments.

Source: See McPherson and Schapiro 1991A, p. 23, plus, for data after 1986, Table 324 (p. 348) of the *Digest of Education Statistics 1998*, National Center for Education Statistics (1998) and Table 1 (p. 6) of *Trends in Student Aid: 1998*, The College Board (1998).

The most striking trend is the steady decline through 1980 in the overall share of tuition paid by families—the result of an increase in the enrollment share of public institutions, the growth of federal grants and contracts, and the rise in financial aid. However, the decline in the share of higher education revenues provided by families came to an abrupt halt in the 1980s, with the family share increasing by 10 percentage points in the 1979-80 to 1995-96 period (reaching the highest level [24 percent] since before 1959-60).

Table 2 also underscores that it is the states rather than the federal government whose role is changing most dramatically. As late as 1979-80, state governments contributed 45 percent of higher education revenues, almost all of it through direct (nontuition) support of state-run institutions. By 1995-96 that share had fallen to 33 percent. It is noteworthy that even though states' economic fortunes have improved considerably since we first began tracking these numbers around 1990, the downward trend in the share of higher

education revenues provided by the states is so far unabated. The share of revenues supplied by federal student aid has remained roughly constant since the mid-1970s, but the share provided by federal research support has declined substantially (from 26 percent to 15 percent) from its high in the mid-1960s. Since research support is concentrated in a fairly small number of institutions, this decline is of major importance for that subgroup.

We turn now to a detailed look at changes in the sources of financial aid. Table 3 shows the overall magnitudes of federal and other forms of student aid, expressed in constant 1997-98 academic year dollars, for selected years since 1963. With respect to how federal funding has developed, the period from 1963 to the present can be usefully divided into four subperiods. Before 1975, a fairly modest total of "generally available" aid was divided between guaranteed loans and the so-called "campus-based" programs, which provide funds for institutions to use for student aid in the form of grants, loans, and work. From 1975 to 1980, the generally available federal aid budget grew rapidly (doubling in real dollars between 1975-76 and 1980-81), with substantial expenditures on the newly introduced Pell program, the means-tested grant program put in place under the Nixon administration in 1974. From 1980 to the early 1990s, both the Pell program and guaranteed loans increased at a slower rate (with a real increase of about one-third in each). Since that time, growth in guaranteed and direct loans has been enormous (a real increase of 114 percent between 1990-91 and 1997-98) but expenditures on the Pell program have risen by only 5 percent in real dollars. Thus, while federal aid in 1997-98 totaled $44.0 billion, up from only $25.6 billion in 1990-91 (in 1997-98 dollars), virtually all of the increase was in the form of loans rather than grants.

The real value of state grants has followed a positive trend throughout the entire period but the absolute increase has been dwarfed by the growth in institutional grants. The real value of institutional grants has gone up by almost fourfold over the past decade and a half, rising from $3.0 billion in 1980-81 (in 1997-98 dollars) to $11.2 billion in 1997-98.

These aggregate aid numbers provide only limited insight into how student aid has helped particular groups of students meet the costs of college. One useful bit of insight into this question is provided by Table 4, which examines changes over time in the targeting of the federal Pell program.

While in the early years of the program the bulk of grant recipients were traditional-aged college students supported by their parents (in 1973-74 only around 13 percent of Pell recipients were independent students), by 1985-86 the majority of recipients were independent students. That percentage has been fairly stable at around the 60 percent level during the 1990s, although the figure in 1997-98 (56.6 percent) is the lowest in a decade.

Table 3. Aid Awarded to Students, by Source of Aid, Selected Academic Years, 1963-1998, In Millions of 1997-98 Academic Year Dollars

	63-64	70-71	75-76	80-81	85-86	90-91	95-96	96-97	97-98
Federal programs									
Generally available aid									
Pell grants	0	0	2701	4457	5347	5961	5728	5883	6256
Supplemental educational opportunity grants	0	670	701	689	612	553	610	594	583
State student incentive grants	0	0	57	135	113	71	67	32	46
Work-study	0	816	860	1233	975	879	799	774	1007
Perkins loans	596	979	1342	1295	1045	1051	1077	960	1058
Guaranteed and direct loans	0	4133	3695	11581	13138	15301	28668	31091	32714
Subtotal	**596**	**6598**	**9356**	**19389**	**21229**	**23823**	**36950**	**39333**	**41663**
Specially directed aid									
Social Security	0	2032	3188	3516	0	0	0	0	0
Veterans	351	4564	12191	3201	1284	820	1364	1302	1354
Military	219	263	282	375	509	445	458	463	474
Other grants	46	65	184	227	100	142	234	233	286
Other loans	0	171	131	116	554	417	340	279	210
Subtotal	**616**	**7094**	**15976**	**7435**	**2447**	**1824**	**2397**	**2278**	**2323**
Total federal aid	**1212**	**13691**	**25332**	**26824**	**23676**	**25647**	**39346**	**41611**	**43986**
State grant programs	294	961	1429	1496	1948	2246	3140	3220	3349
Institutional & other grants	1414	3407	3408	3033	4402	6958	9879	10466	11205
Non-federal loans	0	0	0	0	0	0	1303	1691	1991
Total Federal, State, and Institutional aid	**2919**	**18059**	**30169**	**31353**	**30026**	**34852**	**53668**	**56987**	**60532**

Note: 1996-97 data are estimated and 1997-98 data are preliminary.

Source: *Trends in Student Aid: 1998*, The College Board (1998), Tables 2 (p. 7) and B (p. 15).

Table 4. Distribution of Pell Grant Funds to Independent Students and Proprietary Schools, Selected Academic Years, 1973-1998

Year	Pell recipients who are independent students	Pell revenue going to students at proprietary institutions
1973-74	13.3%	7.0%
1975-76	29.8%	9.0%
1977-78	38.5%	8.9%
1979-80	33.8%	10.5%
1981-82	41.9%	13.5%
1983-84	47.5%	18.8%
1985-86	50.4%	22.2%
1987-88	57.5%	26.6%
1989-90	59.0%	23.1%
1991-92	61.5%	20.7%
1992-93	62.1%	18.5%
1993-94	59.2%	15.3%
1994-95	59.3%	13.2%
1995-96	58.5%	12.5%
1996-97	57.6%	12.5%
1997-98	56.6%	—

Note: 1996-97 data on proprietary schools are estimated.

Source: See McPherson and Schapiro 1991A, p. 28, plus, for data after 1988, Tables 5 (p. 11) and 7 (p. 13) of *Trends in Student Aid: 1998*, The College Board (1998).

Equally stunning changes have occurred in the distribution of Pell funds between the non-profit and for-profit (proprietary) sectors. From 1973-74 to 1987-88 there was a remarkable increase (from 7 percent to around 27 percent) in the share of Pell funds going to students attending proprietary vocational and technical institutions, most of which offer non-degree programs of less than two years (while proprietary institutions enrolled fewer than 7 percent of undergraduate students in 1988, their students received more than a quarter of all Pell grant funds). Since that time, however, a tightening of federal aid guidelines has reduced that share all the way to 12.5 percent, the lowest level since around 1980. Data on federal loans show a similarly dramatic decline in the percentage of aid funds going to students at proprietary institutions. This is a quite striking turnabout in a situation that had garnered enormous attention in public discussions of higher education finance in the early 1990s.

The tables discussed above provide an overall picture of changes over time in the financing of American higher education. What is missing is an analysis of the different prices faced by students from different income backgrounds, along with the federal, state, and institutional aid available to them.

Fortunately, the National Postsecondary Student Aid Survey (NPSAS) provides detailed student-level data on higher education financing. The recent release of a new edition of the Survey allows us now to compare data over the nine-year period from 1986-87 to 1995-96. The top panel of Table 5 presents information on the distribution of gross tuition costs (in 1992-93 dollars) for full-time, dependent students attending private non-profit colleges and universities. Students are divided into low, middle, and high-income groups (income brackets, described at the bottom of the table, are equivalent in 1992-93 dollars, reflecting the 38.7 percent price increase between 1986-87 and 1995-96; owing to minor changes in methodology and data definitions, the data for 1986-87 reported here differ slightly from those presented in McPherson and Schapiro [1998]).

At private non-profit colleges and universities, there was a considerable real increase in gross tuition charges (sticker prices) facing students from all income backgrounds, with the largest absolute increase for high-income students. However, increases in the net tuition price actually paid by students were smaller than increases in sticker prices: $3,482 versus $4,379 for high-income students, $2,205 versus $3,820 for middle-income students, and $2,084 versus $3,117 for low-income students.

Federal grants fell in real value for all three income groups, although they account for only a small percentage of gross tuition for students from middle- and high-income backgrounds. For students from low-income backgrounds, the decline in the real value of federal grants, along with the considerable real increase in gross tuition, means that the percentage of tuition covered by federal grant aid has decreased considerably over time—from 22 percent in 1986-87 to only 14 percent in 1995-96.

The subsidy value of federal loans (computed at 50 percent of the total loan amount [see McPherson and Schapiro 1991a]) increased for all income groups, reflecting the enormous increase in loans discussed earlier. State grants not only contribute a decreasing share of gross tuition, they have also declined significantly in absolute terms for low-income students (for whom the real value of state grants fell by $485).

Institutional grants, on the other hand, have increased rapidly for students from all income backgrounds, with the largest absolute increase going to middle-income students. The percentage contribution of institutional grants to gross tuition has increased from 28 percent to 32 percent for low-income students, from 26 percent to 32 percent for middle-income students, and from 11 percent to 13 percent for high-income students.

The middle panel provides analogous information for students attending public colleges and universities. As for private institutions, sticker prices increased in real terms for all groups. Again, increases in the net tuition price actually paid by students were smaller than increases in sticker prices for each income group—$1,291 versus $1,590 for

Table 5. Financing Undergraduate Tuition, 1986-87 and 1995-96, In 1992-93 Dollars

		Net Tuition	Fed. Grant	Loan Sub.	Fed. State Grant	Inst. Grant	Gross Tuition
Private Non-Profit Institutions							
Low Income	86-87	1446	1658	999	1469	2133	7704
	95-96	3530	1525	1308	984	3473	10821
Middle Income	86-87	4118	374	879	625	2151	8147
	95-96	6323	136	1176	503	3830	11967
High Income	86-87	7616	130	334	93	977	9151
	95-96	11098	13	593	88	1738	13530
Public Institutions							
Low Income	86-87	-512	1074	403	415	277	1658
	95-96	-143	1087	691	505	539	2679
Middle Income	86-87	1076	1073	10	116	259	1868
	95-96	1731	71	569	156	332	2859
High Income	86-87	1864	36	83	19	138	2140
	95-96	3155	3	307	56	209	3730
Private For-Profit Institutions (Proprietary Schools)							
Low Income	86-87	1950	1674	1311	330	202	5468
	95-96	3539	1414	1328	291	131	6702
Middle Income	86-87	4008	168	1363	246	214	6000
	95-96	5193	122	1445	141	125	7026
High Income	86-87	5495	51	408	10	121	6085
	95-96	6408	0	729	0	69	7206

Notes: Numbers are averages across all full-time, dependent students attending a particular institutional type. Federal loan subsidies are computed at 50% of loan amounts (excluding PLUS). Income brackets: 1986-87 — <$23,500, $23,500-$54,900, >$54,900; 1995-96 — <$32,600, $32,600-$76,200, >$76,200.

Source: Calculated from 1986-87 and 1995-96 NPSAS data bases.

high-income students, $655 versus $991 for middle-income students, and $369 versus $1,021 for low-income students. Note that for the average low-income student attending a public institution, the contribution of federal, state, and institutional aid exceeded the gross tuition price in both years, once the subsidy value of federal loans is included as part of financial aid. This reflects the difference between gross tuition and gross total costs of attendance, with the latter including room, board, and other charges. Thus, the excess of financial aid over gross tuition is applied against other costs of attendance.

Federal grants for low-income students attending public colleges and universities were roughly stable, but the percentage of gross tuition covered by federal grant aid decreased from 65 percent in 1986-87 to only 41 percent in 1995-96. The subsidy value of federal loans, on the other hand, increased in real terms for students from all income backgrounds, as did the real value of state grants. Institutional grants also increased for students from all income groups.

Finally, the bottom panel presents information for students attending private for-profit (proprietary) schools. Again, sticker prices increased in real terms for all groups, although in this case increases in the net tuition price actually paid by students were about equal to or were larger than increases in sticker prices for each income group—$913 versus $1,121 for high-income students, $1,185 versus $1,026 for middle-income students, and $1,589 versus $1,234 for low-income students. This reflects the decline in the real value of financial aid from various sources.

The 1995-96 data reflect student financing patterns that were largely the result of changes in federal student aid programs introduced in the 1992 reauthorization of the Higher Education Act—the most striking of which is the spectacular run-up in federal loan volume since 1992-93. As we noted in our discussion of Table 3, federal lending has grown in real dollars at a staggering rate during the 1990s. Probably the most important explanation for this growth is a set of changes in needs-analysis methodology introduced in the 1992 reauthorization of the basic higher education legislation. Students receive interest subsidies on their loans only to the extent that they can be shown to have financial need. Congress, which some years ago decided to write the needs-analysis rules themselves, rather than leaving them to student aid experts, made those rules significantly more lenient for middle- and upper middle-income students in the 1992 legislation. Notably, a family's home equity was no longer counted as an asset. These changes imply that many families at public institutions who would not have qualified as needy under the old rules can now get subsidized loans. Other factors contributing to the loan run-up include the rising costs at public institutions, which also qualify more students for loans, and the introduction of federal direct loans, which have simplified the process of obtaining a loan considerably.

This recent pattern of a decline in real funding for federal grants coupled with rapid expansion in subsidized loans seems not to reflect a deliberate policy shift, but rather the working out of budgetary pressures. Since grant funds are a form of discretionary spending, their real decline reflects the impact of the general squeeze on the federal budget. Guaranteed loans, by contrast, are an entitlement and so are not affected in the same way in the short run by budget battles.

But intended or not, this shift has significant implications for the targeting of federal aid subsidies. Since Pell grant funds are very effectively targeted on low-income students, as the NPSAS data reviewed above show, while federal loan subsidies are distributed much more broadly to middle-income as well as lower-income students, the shift of funding toward loans clearly moves support away from low-income students and toward the middle class.

College Access

Our review of pricing and aid makes it clear that recent years have seen a substantial run-up in the real costs to students of attending college, even after allowing for the effects of financial aid. These cost increases are widespread across types of institutions and family income levels of students. It is natural to expect that these substantial increases in college costs should produce a decline in rates of college attendance, yet, as we will show in a moment, enrollment rates of high school graduates are actually at an all-time high. The question before us is whether and how we can reconcile these trends with the econometric evidence that higher prices or lower aid levels tend to discourage college attendance.

First, the facts. Table 6 traces changes over time in college enrollment rates for high school graduates from different races. Data are available for White students from 1960, while data for Blacks and Hispanics date only from 1976. Due to the high variability reflecting small sample sizes for Blacks and Hispanics, three-year moving averages are also calculated for those groups.

Beginning with Whites, there was little trend between 1960 and 1980, with enrollment rates hovering at around the 50 percent level (note that the denominator is the number of people aged 16 to 24 who graduated from high school within the preceding 12 months, while the numerator is the subset of that group enrolled in college. These rates are substantially higher than the enrollment of all high school graduates aged 16 to 24, an alternative enrollment rate that is often used.). After that time, however, enrollment rates climbed to the 60 percent level in the late 1980s, continuing to rise to around 68 percent in 1997. The moving average for Blacks was around 45 percent in the late 1970s, fell to around 40 percent during the first half of the 1980s, then regained that loss before ending the period with enrollment rates above the 50 percent level. Rates for Hispanics were generally slightly below 50 percent from 1977 to 1984, fell during the mid-1980s, before averaging in the mid-50s over the subsequent period.

Table 6. College Enrollment Rates of High School Graduates (%)

	Whites	Blacks	3-yr. ave.	Hispanics	3-yr. ave.
1960	45.8	—	—	—	—
1961	49.5	—	—	—	—
1962	50.6	—	—	—	—
1963	45.6	—	—	—	—
1964	49.2	—	—	—	—
1965	51.7	—	—	—	—
1966	51.7	—	—	—	—
1967	53.0	—	—	—	—
1968	56.6	—	—	—	—
1969	55.2	—	—	—	—
1970	52.0	—	—	—	—
1971	54.0	—	—	—	—
1972	49.4	—	—	—	—
1973	48.1	—	—	—	—
1974	47.1	—	—	—	—
1975	51.2	—	—	—	—
1976	48.9	41.9	—	52.6	—
1977	50.7	49.6	45.7	51.3	48.9
1978	50.1	45.7	46.9	42.9	46.3
1979	49.6	45.4	44.3	44.8	46.8
1980	49.9	41.8	43.4	52.7	49.9
1981	54.6	42.9	40.4	52.1	49.3
1982	52.0	36.5	39.3	43.1	49.8
1983	55.0	38.5	38.4	54.3	47.3
1984	57.9	40.2	40.3	44.3	49.9
1985	59.4	42.3	39.7	51.1	46.6
1986	56.0	36.5	43.6	44.4	43.0
1987	56.6	51.9	44.5	33.5	45.0
1988	60.7	45.0	49.9	57.0	48.6
1989	60.4	52.8	48.0	55.4	53.2
1990	61.5	46.3	48.2	47.3	53.3
1991	64.6	45.6	46.6	57.1	53.1
1992	63.4	47.9	49.7	54.8	58.1
1993	62.8	55.6	51.5	62.5	55.4
1994	63.6	50.9	52.6	48.9	55.1
1995	62.6	51.4	52.5	53.8	51.1
1996	65.8	55.3	55.4	50.7	56.7
1997	67.5	59.6	—	65.5	—

Note: enrollment rates reflect enrollment in college as of October of each year for individuals age 16 to 24 who graduated from high school (including GED recipients) during the preceding 12 months.

Source: based on information presented in Table 183 (p. 208) of the *Digest of Education Statistics 1998,* National Center for Education Statistics (1998).

Thus, enrollment rates for all three racial groups are at record rates, with a notable gain beginning around 1988 and continuing to the present. Yet we should also note that the gap between the enrollment rate of Whites and those of Blacks and Hispanics is larger now than it was in the late 1970s. At that time, White enrollment rates were about 5 percentage points higher than those for Blacks and about 3 percentage points higher than those for Hispanics. In the 1980s that gap widened, and recently it has been around 10 percentage points for Blacks and 8 or so for Hispanics. The analysis in our recent book (McPherson and Schapiro 1998) ended with 1994 data; the extension reported here to 1997 provides no evidence that the gaps we noted then are closing.

Which factors have contributed to the observed trends? Have changes in tuition and financial aid had an impact? Have government policies played a positive role?

The question of how pricing and aid influences student enrollment decisions has received much attention from economists and policy analysts over the last decade. One school of thought, led by Lee Hansen, has focused on the difficulty of discerning much impact of changes over time in prices and in federal student aid policy on national enrollment trends. Certainly the coincidence of higher prices and higher enrollment rates in recent years that we have just noted could be used to buttress these arguments. Another school of thought has focused on econometric studies, relying mostly on cross-section data that show significant negative effects of price on enrollment and significant positive effects of aid on enrollment.

Our own work (McPherson, Schapiro, and Winston 1993, chapter 8; McPherson and Schapiro 1991a, chapter 3; McPherson and Schapiro 1991b) presented new empirical results in an attempt to reconcile differences in the literature. We presented a properly controlled econometric analysis of time-series data that showed significant effects of aid on enrollment for students from lower-income families (defined as income below $20,000 in 1990 dollars).

This finding is very important—it provides an economic foundation for the considerable investments in financial aid made by federal and state governments as well as by institutions. Specifically, our results indicate that increases in net cost over time lead to decreases in enrollment rates for lower-income students. The magnitude of the coefficient on net cost implies that for lower-income students a $150 net cost increase, expressed in 1993-94 dollars, results in a 1.6 percent decline in enrollment for that income group. A consensus in the econometric literature is that a $150 increase in net cost reduces enrollment rates by 1.8 percent. Our result is thus broadly consistent with typical cross-section findings, and thus helps to ease the worry that the historical evidence of the time-series studies is at odds with the best econometric work.

While our findings corroborate the presence of a significant price or aid effect for low-income students, we found no evidence that increases in net cost inhibited enrollment for more affluent students. Thus, policies that call for cross-subsidization of students—richer students paying a substantial share of educational and general costs with these revenues supporting discounts for lower-income students—makes sense from the viewpoint of economic efficiency.

A study by Tom Kane (1995; see also Ellwood and Kane 1998) supports our findings. Kane examined the effect of public college tuition on college entry, with the bulk of the evidence pointing to large enrollment impacts, especially for low-income students and for those attending two-year colleges. Specifically, states with high public tuitions have lower college entry rates, the gap in enrollment between high- and low-income youth is wider in high-tuition states, and within-state tuition hikes lead to lower enrollment rates and wider gaps between high- and low-youth.

Is it possible, then, to reconcile these econometric results with the recent growth of enrollment rates in the face of rising net costs? We think so, for several reasons.

First, of course, prices are not by any means the sole determinant of enrollment rates. There is strong evidence that the economic returns to investments in college have grown substantially in recent years, and this is an obvious explanation for the growth in college attendance. According to Census data, a worker with a Bachelor's degree earned 1.57 times as much in 1975 as a worker with a high school degree; in 1997 that ratio had risen to 1.77. Unfortunately, this growing labor-market advantage for the college-educated came about mostly because of declines in the real incomes of recent high school graduates, rather than because of large real gains for college-attendees (see Katz and Murphy 1992). As Kane (1995) argues, this change in returns can go a long way toward explaining the increase in enrollment rates.

Moreover, the increase in enrollment rates has not been uniform across income groups. Kane (1995) notes that the gap in enrollment rates between students from the lowest income quartile and those from the other three quartiles grew by 12 percentage points between 1980 and 1993 (p. 6). We noted above that the gap between the enrollment rate of Whites and those of Blacks and Hispanics have likewise grown over that period, a fact that is consistent with the lower average socioeconomic status of Blacks and Hispanics. These results support the evidence in our econometric work that price sensitivity to enrollment is concentrated among low-income students, with little or no price response observed among lower-income students.

We can make this point more explicit by referring back to Table 5. If we concentrate on public higher education (the middle panel), the sector which dominates the total enroll-

ment numbers, it appears that net tuition increases of $650 to $1,300 for middle- and upper-income students have not been enough to deter enrollment in the face of high economic returns to college. Economists have long criticized the large subsidies to middle- and upper-income families implicit in the states' tendency to subsidize college attendance through low public tuition. This evidence is consistent with the judgment that, at the margin, shifting some of the financing burden from state governments to middle- and upper-income families does not discourage enrollment.

On the other hand, the growing gap between enrollment rates for lower- and higher-income students noted above suggests that increases in the net cost facing low-income students do discourage college attendance. Kane's (1995) evidence that the gap between low-income and high-income enrollment rates by state is positively related to rates of growth in public tuition strongly suggests that the increases in net cost for low-income students shown in Table 5 are having an impact on their access. In an updated analysis, Kane (1998) argues that with overall college enrollment rates rising since 1980, it is common to observe states both raising tuition at high rates and experiencing increases in enrollment. But, as he demonstrates in the case of the state of Massachusetts, which had especially dramatic increases in tuition coupled with cuts in grant aid during the late 1980s and early 1990s, the gap in enrollment between that state and other states grew substantially. To simply look at changes in enrollment in a particular state without comparing it with what is happening elsewhere may incorrectly imply that increases in net tuition have little or no effect on enrollment. In his new manuscript, Kane (1998) also uses multivariate statistical analysis to isolate the effect of tuition on enrollment. He finds that a $1,000 increase in tuition charges at public four-year institutions reduces enrollment in that sector by 13.7 percent for whites and by 21.4 percent for blacks. Again, this substantiates the contention that certain groups are more vulnerable to tuition hikes than others.

These facts make the trend of the last few years of reducing real funding of Pell and increasing funding for loans all the more unsettling. As we noted earlier, expanded loan funds since 1992-93 have probably gone largely to middle- and upper middle-income students at public colleges and universities. While they no doubt welcome such support, there is little evidence that it is essential to enabling them to attend college. Yet federal grant dollars are very effectively targeted on low-income students, and there is evidence that changes in support for low-income students do influence their college going. So the recent redistribution of federal dollars appears to be going the wrong way from both the standpoint of social equity and the standpoint of efficiency in promoting college enrollment.

One final point with regard to overall enrollment patterns is worth noting. For-profit colleges have endured large increases in the net prices facing low-income students, as their tuitions have gone up and grant support has declined. It seems very likely that this

dramatic change in their financial situation has had an important impact both on attendance levels and the financial well-being of many of these establishments. Unfortunately, there is no reliable database to draw on in order to study the fate of this intriguing sector.

Thus far our discussion of access has concentrated either on the link between race and enrollment or between income and enrollment. But perhaps an even more important question relates to how student ability enters the story. Low-income students on average are less likely to participate in American higher education, but what about the most talented low-income students? It has long been a goal of federal policy to break the link between family background and college enrollment, especially for students with the motivation and ability to succeed in college.

Table 7 examines enrollment data from four different dates, with students broken down into three family income groups and, except for the most recent year, into four ability groups. For 1994, only three ability groups were distinguished.

In 1994, 38 percent of students from the bottom ability group attended higher education compared with 63 percent of students from the middle ability group and 87 percent from the upper ability group. That finding by itself need not cause much worry—most people would agree that students with the highest demonstrated ability should have the greatest chances to participate in further education. But it is striking that 64 percent of the low-ability students from high-income families proceed to colleges and universities versus only 29 percent of their low-income counterparts. Much more troubling is the finding that only 49 percent of middle-ability students from low-income families and 75 percent of high-ability students from low-income families advance to postsecondary training—compared with 81 percent and 95 percent of students from the high-income group. It is worrying enough that 5 percent of high-ability, high-income students and 14 percent of high-ability, middle-income students do not enroll in college. But it is of greater concern that one out of four high-ability students from low-income backgrounds find no place among our roughly 3,500 colleges and universities.

Is this getting better or worse over time? That comparison is complicated by the fact that the three earlier dates have four ability categories rather than three. The enrollment rate for low-income students in the highest ability group failed to increase from its 1961-63 level (60 percent) to 1972 (58 percent) or to 1980 (58 percent again). In 1980, a high-income student with less than average ability (in ability category 2) was more likely than a low-income student with high ability to enroll in college (68 percent versus 58 percent). Note that in 1994, a high-income student with average ability was also more likely to pursue higher education than a high-ability student from a low-income background (81 percent versus 75 percent). We clearly have a long way to go before we reach the situation where academic talent rather than family background determines who enrolls in higher education.

Table 7. College Enrollment Rates by Family Background and Student Ability, Selected Years

		Family Income			
	Test Score Group	Low	Middle	High	
1961-63	1	14%	24%	42%	
	2	24%	36%	55%	
	3	38%	51%	77%	
	4	60%	77%	91%	
1972	1	18%	21%	35%	
	2	25%	35%	53%	
	3	38%	51%	72%	
	4	58%	68%	84%	
1980	1	21%	26%	40%	
	2	31%	39%	68%	
	3	47%	59%	77%	
	4	58%	76%	86%	
1994					**All**
	1	29%	47%	64%	38%
	2	49%	68%	81%	63%
	3	75%	86%	95%	87%
	All	44%	69%	86%	

Notes: Data for 1961-63, 1972, and 1980 are from Project Talent, National Longitudinal Study, and High School and Beyond, as compiled in the Eureka Project (1988, p. 35). Data for 1994 are from the National Education Longitudinal Study, as reported in Karen Akerhielm et al., "Factors Related to College Enrollment," Mathtech, Inc., 1998, p. 19.

This analysis is supported by the statistical analysis in Kane (1998) (and, again, in his paper with Ellwood). Controlling for race, he finds that the enrollment rate for a student from a family in the top fifth of the income distribution is 34 percentage points greater than for a student from the bottom fifth. Controlling for student ability as well, he finds that affluent students still have enrollment rates that are around 22 percentage points greater than students from the bottom income group. This corresponds very closely with the finding discussed before—that family income has a powerful effect on college enrollment, even among students with similar talent. When one recognizes that measured ability (test scores, etc.) is itself partly determined by family income, the relationship between family background and college enrollment is even stronger.

College Choice

When we consider the topic of educational opportunity, we take into account both the issue of the accessibility of higher education to lower-income students and the overall distribution of students across institutional types. Despite the concerns we have noted about the impact on access of the recent rise in college costs facing low-income students, the high overall rates of college attendance in recent years point to considerable success in making some form of postsecondary education financially accessible to a very wide range of Americans. Although continuation of recent trends could easily threaten the nation's achievements in providing "access" to college, it is important to stress the considerable success of the U.S. system in making it possible for so many Americans to continue their education beyond high school.

Yet the existing financing system may be much less successful in providing a suitable postsecondary experience for many disadvantaged students. The range of alternatives available to students appears to be quite sharply constrained by their incomes under existing arrangements. In most states, community colleges are the cheapest and most accessible alternative for low-income students, a fact that is reflected in their disproportionate representation in these institutions. Although the issue of "choice" is often expressed in terms of public versus private alternatives, opportunity to attend a flagship public university or indeed any four-year public institution is importantly constrained by income in many states.

It is interesting to note that much of the popular discussion regarding where students go involves middle-income students, not lower-income students. It is often suspected that students from middle-income backgrounds have been most affected by the considerable real increases in tuition at private colleges and universities. Students from lower-income backgrounds qualify for need-based financial aid, lessening the chance that these students experience an affordability problem. Students from upper-income backgrounds receive a different but analogous form of financial aid—parental contributions that do not require major proportions of available annual incomes. But, the story goes, when tuitions rise faster than other economic indicators, students from middle-income backgrounds are forced to switch to less costly educational alternatives. In fact, for years the view that middle-income students—too rich for financial aid but too poor to afford private school tuitions—are increasingly showing up at public institutions has been stated as truth in the national media (see, for example, Kuttner 1989).

In this section, we examine changes over time in the higher education destination for students of different economic backgrounds. This allows us to consider not only the "middle-income melt" topic, but also to examine the broader question of who goes

where and how that compares with more than a decade ago. These results update the findings reported in *The Student Aid Game*—with the trends described there becoming even stronger with the addition of more recent data.

Our analysis relies on data from an annual survey of first-time, full-time college freshmen, The American Freshman Survey. These data are self-reported by students, thereby undoubtedly introducing measurement error. Nevertheless, we use these data for several reasons. First, they are the only consistently reported annual data on the college choices of students from different income backgrounds. Second, there is no reason to expect the biases in student reporting of income to vary systematically over time. Hence, while the data may be inaccurate in a particular year, their variation over time should be more reliable. Therefore, while we discuss the distribution of students by income at a given time, we concentrate more on changes over time in that distribution.

Our first step is to disaggregate income distribution data into reasonable groupings that can be traced over time. The most recent available survey data are from the fall of 1998, during which time students were asked to report parents' income for 1997. We have created six basic income brackets from those data (lower, lower-middle, middle, upper-middle, upper, and richest) and computed their constant-dollar equivalents in a previous survey year, 1981. The year 1981 was selected in order to have income bands that match up as closely as possible with the constant-dollar equivalents for those used in 1998. The precise income groupings are described in the table.

Table 8 presents data on the distribution of students from different income backgrounds across institutional types. The institutional types are private universities (typically large institutions with substantial graduate and research programs), private four-year colleges (typically small, liberal arts colleges), private two-year colleges (a collection of mainly religious, business, and art colleges), public universities (again, large graduate universities), public four-year colleges (typically branches of public universities other than the "flagship" campus—for example, the branches of the California State University system, the University of Michigan at Dearborn, the University of Wisconsin at Stout), and public two-year colleges (community colleges). Figures for all private institutions and all public institutions are also provided. In addition, categories are subdivided based on institutional selectivity.

In 1998, 25.3 percent of students attended private institutions, exactly the same as in 1981. Looking within the private sector, the share of all students attending private universities increased from 4.8 percent to 5.8 percent while the share at private four-year colleges rose from 16.2 percent to 17.0 percent. The share attending private two-year colleges fell from 4.3 percent to 2.5 percent.

The same pattern took place in the public sector. The percentage of students attending public universities rose from 17.7 percent to 19.1 percent and the percentage at public four-year colleges rose from 21.4 percent to 23.4 percent. On the other hand, the share of all first-time, full-time freshmen at public two-year colleges fell from 35.6 percent in 1981 to 32.2 percent in 1998.

Turning now to the income breakdowns, it is clear that the percentage of students attending private schools in 1998 varies considerably with income: 19.2 percent of lower-income students attended private colleges and universities, a figure that rises to 22.3 percent for middle-income students, and to 53.0 percent for the richest students. Only 2.9 percent of all lower-income students enrolled in higher education are at private universities, with 13.5 percent at private four-year colleges. On the other hand, 23.4 percent of the richest students enrolled in higher education are at private universities and 26.9 percent are at private four-year colleges. Middle-income students had intermediate enrollment percentages of 3.7 percent and 15.9 percent. Thus, the probability of a student attending a four-year private college or university depends critically on his or her parent's income.

The chances that a student will attend a public university are generally positively related to parent's income (with the exception being the change from the upper-income to the richest income group). The relationship between income and attendance at a public four-year college is more mixed—rising slightly from lower-income to upper middle-income and falling for the two more affluent groups.

Perhaps the most striking finding is that 40.7 percent of upper-income and 48.0 percent of the richest students attend a university (private or public), compared with only 15.2 percent of lower-income students. Where do lower-income students disproportionately enroll? 46.7 percent of lower-income students are at public two-year colleges, more than three times the percentage of upper-income students (12.9 percent) and more than five times the percentage of the richest students (8.1 percent).

How have these proportions changed over time? Comparing 1998 to 1981, the percentage of upper-income students who attend either private or public universities rose from 37.2 percent to 40.7 percent while the percentage of the richest students who attend a university rose from 41.4 percent to 48.0 percent. These increases were shared by universities in both the public and the private sectors—contrary to popular belief, the proportion of upper-income students and of the richest students that attend private universities actually **increased** over the period. The increased attractiveness of public universities to affluent students is also noteworthy: their share of upper-income students rose from 25.9 percent to 28.6 percent and their share of the richest students rose from 22.8 percent to 24.6 percent.

Table 8. Distribution of Freshman Enrollment By Income Background Across Institutional Types, Fall of 1981 versus Fall of 1998

	Lower	Lower Middle	Middle	Upper Middle	Upper	Richest	
	<$20	$20-$30	$30-$60	$60-$100	$100-$200	>$200	All Groups
1998							
Private							
University	**2.9%**	**3.2%**	**3.7%**	**5.8%**	**12.1%**	**23.4%**	**5.8%**
Low Select	(1.5%)	(1.5%)	(1.6%)	(2.1%)	(3.2%)	(4.1%)	(2.0%)
Medium Select	(0.5%)	(0.6%)	(0.9%)	(1.5%)	(3.3%)	(6.8%)	(1.5%)
High Select	(0.9%)	(1.0%)	(1.2%)	(2.2%)	(5.6%)	(12.6%)	(2.4%)
4-Year Colleges	**13.5%**	**14.5%**	**15.9%**	**18.0%**	**21.6%**	**26.9%**	**17.0%**
Low Select	(10.6%)	(11.3%)	(11.9%)	(12.3%)	(12.2%)	(12.3%)	(11.8%)
Medium Select	(2.2%)	(2.5%)	(3.2%)	(4.4%)	(6.3%)	(8.2%)	(3.8%)
High Select	(0.7%)	(0.7%)	(0.8%)	(1.4%)	(3.1%)	(6.4%)	(1.4%)
2-Year Colleges	**2.8%**	**2.5%**	**2.7%**	**2.3%**	**1.8%**	**2.6%**	**2.5%**
All Private	**19.2%**	**20.2%**	**22.3%**	**26.1%**	**35.5%**	**53.0%**	**25.3%**
Public							
University	**12.3%**	**14.0%**	**16.6%**	**22.9%**	**28.6%**	**24.6%**	**19.1%**
Low Select	(4.8%)	(5.4%)	(6.6%)	(8.7%)	(8.6%)	(7.4%)	(7.0%)
Medium Select	(4.4%)	(5.8%)	(7.0%)	(8.9%)	(11.4%)	(8.3%)	(7.6%)
High Select	(3.1%)	(2.8%)	(3.1%)	(5.2%)	(8.6%)	(8.9%)	(4.5%)
4-Year Colleges	**21.8%**	**22.7%**	**23.8%**	**25.3%**	**23.0%**	**14.3%**	**23.4%**
Low Select	(20.0%)	(20.6%)	(20.8%)	(21.3%)	(18.4%)	(11.6%)	(20.2%)
Medium Select	(1.8%)	(2.1%)	(3.1%)	(4.0%)	(4.6%)	(2.8%)	(3.2%)
2-Year Colleges	**46.7%**	**43.1%**	**37.2%**	**25.7%**	**12.9%**	**8.1%**	**32.2%**
All Public	**80.8%**	**79.8%**	**77.7%**	**73.9%**	**64.5%**	**47.0%**	**74.7%**
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

(continued)

Table 8, cont.

	Lower	Lower Middle	Middle	Upper Middle	Upper	Richest	
	<$20	$20-$30	$30-$60	$60-$100	$100-$200	>$200	All Groups
1981							
Private							
University	**2.2%**	**2.7%**	**3.2%**	**5.4%**	**11.3%**	**18.6%**	**4.8%**
Low Select	(1.3%)	(1.4%)	(1.5%)	(1.8%)	(3.0%)	(4.6%)	(1.7%)
Medium Select	(0.5%)	(0.7%)	(0.9%)	(1.6%)	(3.1%)	(4.4%)	(1.3%)
High Select	(0.4%)	(0.6%)	(0.9%)	(2.0%)	(5.1%)	(9.6%)	(1.7%)
4-Year Colleges	**13.6%**	**15.0%**	**14.9%**	**16.3%**	**21.9%**	**32.4%**	**16.2%**
Low Select	(11.6%)	(12.2%)	(11.3%)	(10.8%)	(12.6%)	(17.1%)	(11.7%)
Medium Select	(1.6%)	(2.3%)	(3.0%)	(4.2%)	(5.8%)	(9.5%)	(3.5%)
High Select	(0.4%)	(0.5%)	(0.6%)	(1.3%)	(3.4%)	(5.8%)	(1.1%)
2-Year Colleges	**6.2%**	**5.5%**	**4.2%**	**3.6%**	**3.5%**	**3.0%**	**4.3%**
All Private	**22.0%**	**23.2%**	**22.3%**	**25.3%**	**36.7%**	**54.0%**	**25.3%**
Public							
University	**10.1%**	**12.9%**	**16.1%**	**22.0%**	**25.9%**	**22.8%**	**17.7%**
Low Select	(4.2%)	(5.0%)	(6.2%)	(8.2%)	(9.7%)	(9.2%)	(6.8%)
Medium Select	(3.7%)	(5.4%)	(6.5%)	(8.9%)	(10.0%)	(8.4%)	(7.1%)
High Select	(2.2%)	(2.6%)	(3.3%)	(4.8%)	(6.3%)	(5.1%)	(3.8%)
4-Year Colleges	**23.4%**	**22.5%**	**22.2%**	**21.6%**	**16.9%**	**10.0%**	**21.4%**
Low Select	(22.2%)	(20.8%)	(18.9%)	(17.9%)	(13.7%)	(8.5%)	(18.5%)
Medium Select	(1.2%)	(1.7%)	(3.3%)	(3.7%)	(3.2%)	(1.5%)	(2.9%)
2-Year Colleges	**44.6%**	**41.4%**	**39.3%**	**31.2%**	**20.4%**	**13.2%**	**35.6%**
All Public	**78.0%**	**76.8%**	**77.7%**	**74.7%**	**63.3%**	**46.0%**	**74.7%**
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Notes: The survey of freshmen in 1998 reflected family income in the 1997 calendar year while the survey of freshmen in 1981 reflected family income in the 1980 calendar year. Inflation between 1980 and 1997 equaled 94.8%. Inflation-adjusted income brackets for the 1981 survey would be as follows: <$10.3, $10.3-$15.4, $15.4-$30.8, $30.8-$51.3, $51.3-$102.7, and >$102.7. The selectivity definitions vary somewhat across institutional categories. We define low selectivity as having the following SAT ranges: <1050 for private universities, <1025 for private nonsectarian 4-yr. colleges, <1050 for protestant 4-yr. colleges, <1025 for Catholic 4-yr. colleges, <1000 for public universities, and <1025 for public 4-yr. colleges. We define medium selectivity as having the following SAT ranges: 1050-1174 for private universities, 1025-1174 for private nonsectarian 4-yr. colleges, >1049 for protestant 4-yr. colleges, >1024 for Catholic 4-yr. colleges, 1000-1099 for public universities, and >1024 for public 4-yr. colleges. We define high selectivity as having the following SAT ranges: >1174 for private universities, >1174 for private nonsectarian 4-yr. colleges, and >1099 for public universities.

Source: Calculated from results from The American Freshman Survey.

It was private four-year colleges that have suffered the loss of affluent students in recent years—the proportion of upper-income students who enrolled at these schools fell slightly from 21.9 percent to 21.6 percent while the proportion of the richest students fell much more dramatically from 32.4 percent to 26.9 percent. That fact undoubtedly accounts for the intense financial pressure that private four-year colleges have appeared to be under over the past decade, as no-need students have become increasingly rare. Interestingly, affluent students have found public four-year colleges increasingly attractive, with the proportion attending these schools rising from 16.9 percent to 23.0 percent for upper-income students and from 10.0 percent to 14.3 percent for the richest students. Middle-income students have similarly increased their share going to public four-year colleges, from 22.2 percent to 23.8 percent, with a smaller increase in their share attending public universities (from 16.1 percent to 16.6 percent). The share of middle-income students attending private universities increased slightly (from 3.2 percent to 3.7 percent) while the share attending private four-year colleges rose from 14.9 percent to 15.9 percent. The share of lower-income students attending different institutional types generally changed little over time, except for the decline from 6.2 percent to 2.8 percent in the share attending two-year private colleges and the increase in the share attending community colleges from 44.6 percent to 46.7 percent.

Of all the institutional types, the most notable changes over time were at two-year public colleges. There were considerable changes between 1981 and 1998 in the attractiveness of public two-year colleges to students from different income backgrounds. While the percentage of both lower-income and lower middle-income students attending community colleges increased over time (the latter rose from 41.4 percent to 43.1 percent), the share of students in all other income groups fell (especially noteworthy are the declines from 31.2 percent to 25.7 percent for upper middle-income students; and from 20.4 percent to 12.9 percent for upper-income students). Thus, the flight of students from more affluent backgrounds away from public two-year colleges from 1981 to 1998 was in marked contrast to the experience of students from low-income backgrounds.

These findings raise doubts about some common impressions concerning "middle-income melt." There is no evidence in our data of a redistribution of middle-income students from either private universities or private four-year colleges. In 1981, 18.1 percent of middle-income students and 21.7 percent of upper middle-income students were enrolled at private four-year colleges and universities; in 1998, 19.6 percent of middle-income students and 23.8 percent of upper middle-income students were in those institutions.

The most striking movement among middle- and upper middle-income students has in fact been within the public sector, with a sharp decline in the share attending public two-year institutions, mostly offset by growth in the share at public four-year institutions. Indeed, one of our most interesting findings is the increase in the representation of low-income students at public two-year colleges as opposed to the declining representation of middle- and upper-income students there. It is of course important to remember that the relatively young, first-time, full-time freshmen represented in our survey are not the predominant clientele at community colleges. Nonetheless, these data do seem worrisome. They suggest that the combined effects of tuition increases and limitations on federal student aid may be impairing the ability of lower-income students (relative to their more affluent counterparts) to gain access to institutions other than community colleges.

A particularly illuminating discovery concerns changes in the representation of students in the upper-income and richest income brackets at private four-year colleges. Although leaders at these schools have been vocal in talking about middle-income melt, it appears that what they have experienced is in fact upper-income melt. It seems likely that this loss of full-pay students is a significant part of the explanation for the growing interest of these schools in reviewing their student aid policies and entering into merit aid competition.

These results raise the interesting question of why there hasn't been middle-income melt in the sense of movement of middle-income students from more to less expensive institutions. These data do not speak directly to the causes of the patterns we observe. But we would suggest two factors that may be at work. First, many middle-income students get substantial tuition discounts at private institutions. Increases in discounting may have buffered the effects of a growing tuition gap. Indeed, as indicated in the upper panel of Table 5, nearly half of the tuition increase facing middle-income students at private colleges and universities between 1986-87 and 1995-96 was absorbed through increased institutional grants. Second, many public colleges and universities have experienced serious budgetary problems over the past decade, raising doubts about future quality, imposing obstacles to students getting the classes they need to graduate on time, and so on. These factors may have tended to push students, including middle-income students, toward private institutions, working to offset middle-income melt.

But what about the finding that the most affluent students have been leaving private four-year colleges for private and public universities? Again, we can conjecture about possible explanations. Perhaps the phenomenon of "brand-name" identification that became such an important part of American consumerism in the 1980s also took hold in higher education, with students leaving small, usually regional private colleges for larger and better known universities. In fact, it is interesting to note that the breakdowns by selectivity included in Table 8 show that it was the low selectivity private

four-year colleges that absorbed the loss of the richest students—their percentage fell from 17.1 percent to 12.3 percent. The decline for medium selectivity private four-year colleges was much smaller, from 9.5 percent to 8.2 percent. The share of the richest students attending high selectivity private four-year colleges actually rose over the period (from 5.8 percent to 6.4 percent). Even for private universities, which did better in attracting the richest students in 1998 than in 1981, the increases were all at medium and high selectivity schools rather than at low selectivity universities. This explanation, that there has been a flight to perceived quality, may also help account for the decreased attractiveness of community colleges among middle- and upper-income students.

Stepping back from the details, we find that two broad trends of special importance are revealed in these data. First is the loss of affluent students at private four-year colleges. This fact goes a long way toward helping us understand the plight of these institutions and their increasingly aggressive marketing and price-discounting policies. Second is the increasing concentration of low-income students in community colleges. It makes a great deal of sense that, as prices rise in public higher education and alternative aid sources fail to keep pace, students of limited means will increasingly find the local community college to be the only viable alternative for postsecondary education. (The middle panel of Table 5 shows that from 1986-87 to 1995-96 the real tuition charge facing low-income students at public institutions rose by roughly $1,000. About $600 of that was offset by real aid increases (including larger loan subsidies), with the result that net tuition charges rose by $400.) Community colleges may offer excellent opportunities to many young people, but there is no reason why they should be disproportionately attractive to low-income students. The increasing stratification of public higher education by income suggested in these data is a cause for concern.

This stratification is made clearer in Table 9, which depicts the relationship between the income background of students and the selectivity of the colleges or universities (regardless of whether it is private or public) they attend. In 1981, only 10.0 percent of all lower-income and 13.8 percent of lower middle-income first-time, full-time freshmen were enrolled at medium or highly selective four-year institutions. Comparable figures for upper-income and the richest students were 36.9 percent and 44.3 percent. By 1998, the proportion of students from the low-income groups that were enrolled at medium or highly selective schools rose to 13.6 percent and 15.5 percent, but those increases were smaller than for their affluent counterparts whose percentages rose to 42.9 percent and 54.0 percent. Thus, we are now in the situation where fewer than one of seven lower-income students enrolled anywhere in American higher education is at a medium or highly selective four-year institution as opposed to more than one out of two of the richest students. Ellwood and Kane (1998) document in their paper the increasing economic advantage conferred on more affluent students through their greater likelihood of attend-

Table 9. Distribution of Freshman Enrollment By Income Background By Institutional Selectivity, Fall of 1981 vs. Fall of 1998

	Lower	Lower Middle	Middle	Upper Middle	Upper	Richest	
	<$20	$20-$30	$30-$60	$60-$100	$100-$200	>$200	All Groups
1998							
2-yr public	46.7%	43.1%	37.2%	25.7%	12.9%	8.1%	32.2%
2-yr private	2.8%	2.5%	2.7%	2.3%	1.8%	2.6%	2.5%
Low Select 4-yr	36.9%	38.8%	40.9%	44.4%	42.4%	35.4%	41.0%
Medium Select 4-yr	8.9%	11.0%	14.2%	18.8%	25.6%	26.1%	16.1%
High Select 4-yr	4.7%	4.5%	5.1%	8.8%	17.3%	27.9%	8.2%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1981							
2-yr public	44.6%	41.4%	39.3%	31.2%	20.4%	13.2%	35.6%
2-yr private	6.2%	5.5%	4.2%	3.6%	3.5%	3.0%	4.3%
Low Select 4-yr	39.3%	39.4%	37.9%	38.7%	39.0%	39.4%	38.7%
Medium Select 4-yr	7.0%	10.1%	13.7%	18.4%	22.1%	23.8%	14.8%
High Select 4-yr	3.0%	3.7%	4.8%	8.1%	14.8%	20.5%	6.6%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

See notes to Table 8 for a discussion of income brackets and selectivity categories.

ing four-year colleges. This advantage is almost certainly strengthened by the fact that these students are also increasingly more likely to attend the more selective among four-year colleges and universities.

Attendance at a prestigious college or university carries with it a number of advantages. Gordon Winston and his colleagues have been monitoring costs, prices, and subsidies in American higher education. Table 10 (from Winston, Carbone, and Lewis [1998]) shows that in 1995 the average higher education institution spent $12,209 (educational and general expenditures plus a capital use cost) while charging a sticker price of $6,135. That implies that all students—regardless or whether they received financial aid—were awarded a general subsidy of $6,074. The average financial aid award was $2,251, leading to a total subsidy of $8,324: the difference between educational costs of $12,209 and net tuition of $3,885.

Table 10

Costs, Prices, Subsidies, Aid, and Enrollment

1987 and 1995 Academic Years

in 1995 $	Enrollment 1987	Enrollment 1995	Subsidy 1987	Subsidy 1995	Educational Costs 1987	Educational Costs 1995	Net Tuition 1987	Net Tuition 1995	Sticker Price 1987	Sticker Price 1995	General Subsidy 1987	General Subsidy 1995	Individual Student Aid 1987	Individual Student Aid 1995	Net Price/ Cost Ratio 1987	Net Price/ Cost Ratio 1995
	[1]		[2]		[3]		[4]		[5]		[6]		[7]		[8]	
All Institutions	**3,287**	**3,747**	**8,498**	**8,324**	**11,635**	**12,209**	**3,137**	**3,886**	**4,592**	**6,135**	**7,043**	**6,074**	**1,455**	**2,251**	**27.0%**	**31.8%**
All Public	**4,656**	**5,387**	**8,317**	**8,029**	**9,224**	**9,264**	**906**	**1,235**	**1,616**	**2,275**	**7,608**	**6,989**	**710**	**1,040**	**9.8%**	**13.3%**
All Private	**1,765**	**1,962**	**8,699**	**8,653**	**14,316**	**15,482**	**5,616**	**6,829**	**7,901**	**10,426**	**6,415**	**5,656**	**2,284**	**3,597**	**39.2%**	**44.1%**
Public Institutions																
Decile 1	6,829	7,383	15,224	14,319	16,344	16,058	1,120	1,739	2,186	3,273	14,158	12,786	1,066	1,533	6.9%	10.8%
Decile 2	4,881	5,495	11,007	10,452	11,853	11,645	846	1,192	1,768	2,434	10,085	9,211	922	1,241	7.1%	10.2%
Decile 3	5,628	5,132	9,818	9,160	10,739	10,554	920	1,394	1,762	2,480	8,977	8,074	842	1,086	8.6%	13.2%
Decile 4	5,124	5,580	8,827	8,417	9,320	9,558	892	1,141	1,590	2,213	7,930	7,346	698	1,072	9.4%	11.9%
Decile 5	4,443	4,999	8,110	7,753	8,964	8,955	854	1,203	1,604	2,250	7,361	6,705	749	1,048	9.5%	13.4%
Decile 6	3,891	4,558	7,258	7,203	8,009	8,226	751	1,028	1,412	2,002	6,597	6,224	661	979	9.4%	12.4%
Decile 7	4,068	4,695	6,474	6,561	7,749	7,750	874	1,169	1,503	2,112	6,245	5,637	629	924	11.3%	15.3%
Decile 8	4,173	5,099	6,356	6,178	6,979	7,316	923	1,136	1,512	2,088	5,468	5,228	568	950	13.2%	15.6%
Decile 9	3,693	4,466	5,537	5,591	6,600	6,785	965	1,194	1,505	2,035	5,006	4,780	642	841	14.6%	17.6%
Decile 10	3,824	4,905	4,527	4,628	5,441	5,765	915	1,137	1,312	1,856	4,129	3,909	398	718	16.8%	19.7%
Private Institutions																
Decile 1	2,845	3,056	21,549	23,259	29,194	32,079	7,645	8,820	11,273	14,082	17,921	17,997	3,628	5,262	26.2%	27.5%
Decile 2	1,095	1,213	12,736	12,766	17,975	19,083	5,240	6,317	8,336	10,566	9,639	8,098	3,098	4,671	29.2%	33.1%
Decile 3	1,159	1,210	10,800	10,461	15,069	16,938	5,269	6,477	8,060	10,938	8,009	6,000	2,791	4,461	32.9%	38.2%
Decile 4	1,347	1,469	9,370	8,768	14,425	14,975	5,056	6,187	7,537	9,868	6,889	5,107	2,481	3,681	35.0%	41.3%
Decile 5	2,055	2,238	8,290	7,665	14,069	14,864	5,439	7,198	8,236	10,967	5,833	3,917	2,397	3,768	41.5%	48.4%
Decile 6	1,301	1,467	7,167	6,659	12,407	13,237	5,240	6,578	7,393	10,046	5,014	3,188	2,153	3,471	42.2%	49.7%
Decile 7	1,766	2,073	5,996	5,951	11,875	12,845	5,079	6,894	7,492	10,259	4,083	2,586	1,913	3,365	48.2%	53.7%
Decile 8	2,132	2,462	4,907	4,959	10,429	11,545	5,522	6,585	7,256	9,499	3,174	2,045	1,733	2,914	53.3%	57.0%
Decile 9	1,892	2,100	3,977	3,794	9,362	10,342	5,385	6,548	6,936	9,125	2,426	1,217	1,551	2,577	57.5%	63.3%
Decile 10	2,062	2,300	2,194	2,132	7,542	8,824	5,348	6,641	6,476	8,474	1,106	349	1,088	1,783	71.1%	73.8%

It is interesting that subsidies vary much more within sectors than across them. The average subsidy at a private institution is only modestly higher than in the public sector ($8,653 versus $8,029). But dividing the subsidy distribution into deciles shows that certain public and private colleges and universities subsidize students much more than others. Within public higher education, subsidies range from $14,319 down to only $4,628 while among private institutions subsidies range from $23,259 to $2,132.

This work shows that all students are subsidized—that is, educational costs exceed net tuition and even sticker prices for both sectors and for each decile. But the amount of subsidy varies greatly. As can be seen in Table 11, two-year public institutions (the destination of almost half of all first-time, full-time lower-income students) provide a subsidy of $7,371 and private comprehensive universities (which are considerably less selective than research universities) provide a subsidy of $5,862. On the other hand, subsidies at private liberal arts colleges average $9,622 and subsidies at both public and private research universities are well over $10,000. The pattern is clear: more selective colleges and universities—which disproportionately attract affluent students—provide the largest subsidies in U.S. higher education.

Speculations on Political Economy

The analysis presented here points toward a growing misalignment between the directions of change in national, state, and institutional policies toward higher education finance, on one hand, and evidence about the needs of different groups for financial support on the other.

To some extent, this misalignment may be an unintended result of certain features of the current policy environment. For example, at the federal level, specific rules under which Congress was operating in recent years made it much easier to enact tax breaks for college tuition than it would have been to spend equivalent amounts of money on student aid grant programs. Meanwhile, individual colleges and universities have been setting their own aid policies and practices in an increasingly uncoordinated fashion, and this may be leading to outcomes that institutions would not judge collectively to be in their interest.

To the extent that current policy directions are unintended byproducts of current institutional arrangements, they may well be remediable. Certainly Congress has the power to create a more symmetrical environment for weighing tax cuts versus spending increases. Congress also has the ability to help colleges and states to renew their focus on need-based aid. For one thing, they could introduce legislation that would make clear that colleges and universities will not be subject to anti-trust prosecution for agreeing to

Table 11

Costs, Prices, Subsidies, Aid, and Enrollment

By Control and Carnegie Type
1987 and 1995 Academic Years

In 1995 $	Enrollment		Subsidy		Educational Costs		Net Tuition		Sticker Price		General Subsidy		Individual Student Aid		Net Price/ Cost Ratio	
	1987	1995	1987	1995	1987	1995	1987	1995	1987	1995	1987	1995	1987	1995	1987	1995
	[1]		[2]		[3]		[4]		[5]		[6]		[7]		[8]	
All Institutions	**3,287**	**3,747**	**8,498**	**8,324**	**11,635**	**12,209**	**3,137**	**3,885**	**4,592**	**6,135**	**7,043**	**6,074**	**1,455**	**2,251**	**27.0%**	**31.8%**
All Public	**4,656**	**5,352**	**8,317**	**8,029**	**9,224**	**9,264**	**906**	**1,235**	**1,616**	**2,275**	**7,608**	**6,989**	**710**	**1,040**	**9.8%**	**13.3%**
All Private	**1,765**	**1,962**	**8,699**	**8,653**	**14,316**	**15,482**	**5,616**	**6,829**	**7,901**	**10,426**	**6,415**	**5,056**	**2,284**	**3,597**	**39.2%**	**44.1%**
Public Institutions																
Research	20,343	21,053	10,913	10,761	12,979	13,857	2,066	3,096	3,005	4,511	9,974	9,346	939	1,415	15.9%	22.3%
Doctoral	10,087	11,331	9,555	8,776	11,411	11,361	1,855	2,585	2,626	3,722	8,785	7,640	771	1,137	16.3%	22.8%
Comprehensive	5,736	6,576	8,949	8,227	10,180	10,052	1,232	1,825	2,065	2,916	8,115	7,137	834	1,091	12.1%	18.2%
Liberal Arts	2,023	2,554	9,201	8,203	10,082	9,704	881	1,501	1,939	2,786	8,143	6,918	1,057	1,285	8.7%	15.5%
Two-Year	2,567	3,198	7,407	7,371	7,995	8,055	588	684	1,186	1,625	6,809	6,430	598	941	7.4%	8.5%
Specialized	1,946	2,142	16,607	16,373	17,839	18,086	1,232	1,714	2,040	3,056	15,799	15,030	808	1,343	6.9%	9.5%
Private Institutions																
Research	11,068	11,823	17,733	21,077	27,432	32,658	9,699	11,581	13,303	16,911	14,129	15,747	3,604	5,330	35.4%	35.5%
Doctoral	5,390	5,699	7,264	8,073	16,544	18,807	9,280	10,734	11,415	14,034	5,129	4,772	2,135	3,300	56.1%	57.1%
Comprehensive	2,103	2,458	6,720	5,862	12,723	13,232	6,003	7,370	7,821	10,488	4,902	2,743	1,818	3,119	47.2%	55.7%
Liberal Arts	1,069	1,238	9,566	9,622	14,910	15,991	5,344	6,369	7,983	10,534	6,926	5,458	2,640	4,165	35.8%	39.8%
Two-Year	652	639	6,475	6,787	10,276	11,632	3,801	4,845	5,642	7,520	4,635	4,112	1,840	2,675	37.0%	41.7%
Specialized	963	972	8,809	8,171	14,135	15,079	5,326	6,908	7,113	9,545	7,022	5,534	1,787	2,637	37.7%	45.8%

coordinate their aid policies in the direction of emphasizing need-based aid. Beyond that, it would not be technically difficult, as we have argued elsewhere (see McPherson and Schapiro 1997), to create new incentives in the federal financial aid system that would encourage colleges and state governments to focus their own aid resources on need-based support.

However, those of us who are concerned about the directions of higher education financing policy in the U.S. may need to look deeper than these kinds of institutional fixes. Observers of the policy scene would surely acknowledge that the nation right now seems to lack the political will to reassert a strong commitment to strengthening college opportunity for economically disadvantaged students, while plenty of political energy exists to provide assistance to students from more affluent families.

Speculation about the political-economic forces behind this circumstance certainly pushes the limits of our expertise as economists, and takes us into areas where clear quantitative evidence is hard to assemble. Nonetheless, the challenges presented by the current policy environment seem to us sufficiently serious to warrant putting forward some tentative observations in this realm.

A. *Higher education as a defensive necessity*

We might begin by noting the air of paradox that surrounds the growing demands of middle- and upper middle-income families for relief from the costs of paying for college. Part of the paradox is that the demands seem not to be accompanied by any evidence of real price sensitivity in attendance patterns of students from middle-income families: middle-income families seem both willing and able to pay the fees, even as they complain loudly about them. As we have noted, both their enrollment rates and even their tendency to enroll in more expensive private institutions have held steady or grown in the face of rising prices. This is probably due in large measure to the increase in economic returns to college described earlier.

Yet these higher returns only add to the sense of paradox. Why don't the higher returns lead to a greater enthusiasm on the part of families for paying the necessary costs? Part of the explanation, we would suggest, lies in the fact that much of the higher return derives from the declining wages of high school graduates, rather than the prosperity of college graduates. Parents and students may be led to view college less as a path to "a good life" than as what Lester Thurow many years ago described as a "defen-

sive necessity": a way of avoiding disaster. Parents, we may speculate, feel a strong sense of obligation to see their children through college, but perhaps less out of a belief in the positive value of education than in its preventive effects. This is certainly a perspective that would lead to a strong desire to see someone else pay the bills.

Added to this is the fact that participation rates in college, at least in part as a result of these same defensive pressures, are at all-time highs. The large fraction of middle- aged, middle-income families with children in college adds to the political payoff to subsidizing their college costs, whether through state government subsidies to public colleges or through federal tuition tax credits.

This same defensive perspective that leads to pressure for middle-income subsidies seems likely to fuel resistance to programs that expand access and choice for economically disadvantaged students. To the extent that parents are focused on preserving the relative advantage conferred by a college degree, they will be less interested in expanding opportunity than in preserving existing structures of advantage. By its nature, the competition for relative advantage is a zero-sum game.

Anxiety about relative position seems to be playing a part in the backlash against affirmative action as well as in the resistance to expanded aid for higher need students. Indeed, to the extent that parents are concerned with preserving their children's relative position in economic status, evidence like that produced by Bowen and Bok (1998) showing that affirmative action works in the sense of raising the social and economic status of minority group members may actually promote resistance to it.

B. *Resistance to means-tested welfare programs*

A second factor playing into the current political economy of higher education finance is the more general resistance to "welfare state" policies that has emerged in recent decades. This resistance is reflected in increasing acceptance of the assertion that means-tested welfare benefits promote a culture of dependency and are also unfair to those who work hard to improve their own situation rather than accepting "hand-outs." These judgments have clear counterparts in public reaction to student aid. The Pell grant program in particular, whose benefits are targeted very effectively on high-need, low-income families, is vulnerable to being tagged

with a "welfare" label. The perception is also widespread that need-based aid rewards the profligate while punishing savers.

There is, of course, some irony in equating programs to promote education with welfare programs. Historically, public investments in education have often been seen as alternatives to spending on welfare, as in John Stuart Mill's famous formulation that educational assistance is "help toward doing without help." Back in the mid-1960s, when sustained federal investments in higher education started, grant and loan assistance to college students was included as part of a very broad set of federal initiatives aimed at expanding educational and social opportunity at all levels. These programs were in fact seen as efforts to break "the cycle of poverty" by investing in human capital instead of providing "handouts." Over the last thirty years many of these initiatives have been whittled back, with the result that the Pell grant program is now relatively isolated as a program investing in the human capital of disadvantaged families.

This analysis suggests that resistance to need-based aid is grounded not only in the self-interest of middle-income families but also in an ideological discomfort with "redistributionist" policies. This seems clearly to be a factor in the enthusiasm states have shown for merit aid programs as well as tax-subsidized savings program, both of which are seen as affirming socially desirable behavior.

C. *Suspicion of institutional motives*

A third dimension of resistance to need-based aid is a decline in public confidence concerning the motives and behavior of not-for-profit institutions like colleges and universities. It is, in retrospect, a remarkable fact that the original authorizing legislation for what is now the Pell grant program envisioned direct payments to colleges to supplement the grants students received, on the grounds that the student payments would not fully fund the costs of educating these added students. Here we have an image of colleges as places that deserve explicit federal subsidies to help them perform their educational mission. Contrast this with the current view that any dollar of federal student aid or tax subsidy that is "captured" by the institution is, at best, a dollar wasted and, at worst, a sign of fraud.

Clayton Spencer has observed that the movement of federal higher education spending from the student aid to the tax side of the ledger reinforces this perspective. When colleges, states and the federal government join

together to provide student aid grants and loans, they can easily be seen as partners in helping families meet the need for help in financing college. But when colleges become an instrument through which Congress passes tax benefits to families, the colleges are seen as adversaries, who aim to grab dollars intended for taxpayers.

The same suspicions surely underlie the anti-trust prosecution of a group of selective private colleges and universities in the early 1990s. Activities that had long been viewed as collaborative efforts to serve the common good were recast as a conspiracy against the public interest. Although the Justice Department prosecution finally failed, the episode both reflected and reinforced a jaundiced view of the behavior of colleges and their leaders, and helped give rise to competitive practices that arguably work against the interests of society.

Taken together, these three forces—defensiveness about relative advantage, resistance to welfare-state redistribution, and suspicion of institutional motives—create formidable barriers to developing policies that serve the educational needs of lower-income families. The analysis does not point to any "magic bullets" that will overcome these forces, but it does lead us to two observations about the kinds of conditions that may foster a more promising future environment.

1. *There is a strong case for emphasizing the intrinsic and "absolute" benefits of higher education as well as its contribution to relative economic standing.* The notion of a "rising tide that raises all boats" is surely essential to any politics that will support expanded opportunity. Part of the story here is the overall economic benefit of investments in higher education. There is much evidence that educational improvements add to total economic productivity, as well as provide access to better jobs for those who have more education. In the same way, regarding the affirmative action issue, it will be helpful to show, if we can, that there are overall economic benefits to educating students in more diverse environments, including benefits to "majority" students, as well as relative benefits to minority students who gain access to educational resources.

The larger point, however, goes beyond economic benefit. There are longstanding arguments that investments in higher education confer personal benefits and generate desirable social results beyond a higher paycheck for the individual or a larger GDP for the nation. The remarkable economic returns to higher education in recent years have caused both researchers and advocates of higher education to turn their attention away from these non-money benefits. They remain, however, important to

the case for public support of higher education and— "just as important"—they remain among the most important individual reasons for students to attend college.

A narrowed vision of the purposes of higher education, that focuses on private economic benefits, contributes both to the defensive view many parents seem to take of college investments and to the suspicions of the motives of higher education institutions noted above.

2. *A "social insurance" perspective on the public finance of higher education holds considerable advantages compared to a "welfare-redistributionist" perspective*. One hardly need look further than the contrast between the campaigns to "save Social Security" and to "end welfare as we know it" to see the political salience of this point.

One implication concerns the relative viability of the Pell program and the recently enacted tax credits for college tuition. The Pell program is very effectively targeted at families earning under $30,000 per year, while the tax program provides the bulk of its benefits to those who earn more than that. From a certain perspective this is a policy analyst's dream: two programs tailored to the needs of two constituencies. Some policy analysts have in fact argued in favor of sharpening the targeting of these two programs, making it even clearer that Pell is for the poor and near-poor; tax credits for the middle- and upper- middle class.

But, politically, this could well imply slow suicide for the Pell program. If middle-income families see that they have little stake in the program, and at the same time feel ideologically at odds with "redistribution," the program may well lose political support over time. Conversely, if low-income families have no stake in the tax credit programs, the political dynamic seems likely to produce evolution in terms of expanding the benefits of those programs to the relatively well-off. The politics seem to point toward increasing the overlap in the constituencies served by the tax-credit and Pell programs, rather than sharpening the separation.

The attractions of a social insurance perspective may, however, be broader than this. Tom Kane has pointed out that traditional need-based aid programs are inescapably "backward-looking," aiming to address inequalities of opportunity as they stand in the generation of parents. Kane has argued, in contrast, that an income-contingent loan scheme, as the foundation of college finance, would be forward-looking, aiming to address

inequalities as they emerge in the student generation. A well-designed income-contingent loan scheme (or "graduate tax" as it has been described in some countries) is the very model of a social insurance system. This is not the place for a thorough discussion of the merits and mechanics of income-contingent loan system. There are indeed substantial difficulties to designing and implementing such arrangements in a society with as institutionally heterogeneous and decentralized a higher education system as the United States. Still, it is worth observing that such a system would have substantial advantages in encouraging people to see themselves as part of one system, and sharing in some measure a common fate.

Conclusion

There would be enormous political and economic advantages to promoting a vision of the higher education system as a "positive sum game." Both in regard to parental defensiveness about spending on college and public suspicion of institutional motives, the environment is perceived very much as a "zero-sum" one: my gain is your loss.

We suspect that, to a fair extent, this perception is false. Thus, we would claim that, in most circumstances, when colleges and universities get more revenue, the result is that they do more social good as a result: the "leakage" of funds from tax credits or student aid grants or even indirect cost recovery into institutional revenue streams is by no means a pure social loss, and is probably in many cases a net benefit compared to alternative uses of the funds. In the same vein, we would claim that the intrinsic benefits of college to students—both economic and non-economic—are of at least as much importance as the gain in relative position that accrues from college education. That is, the most important benefits of higher education to a particular individual do not depend on denying those benefits to others. Anything that we and others can do to provide evidence in support of these large claims, and to find means of persuading opinion leaders and the public of their truth, will do much to advance the cause of higher education and of a more humane, productive, and equitable society.

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