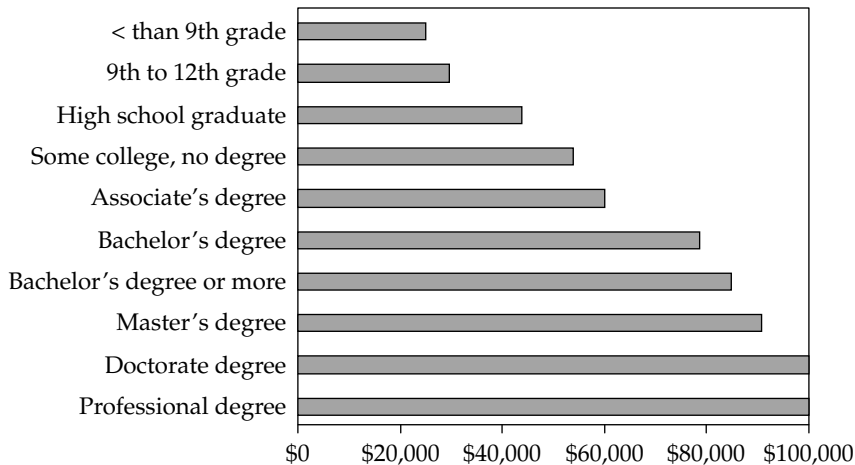
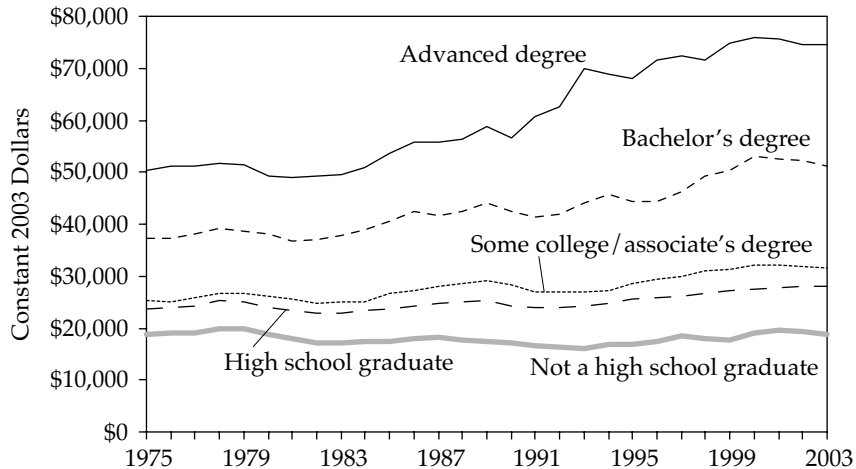


Figure 2.1 Median Annual Family Income, by Educational Attainment of Householder, 2001



Source: U.S. Census Bureau (2001).

Figure 2.2 Mean Annual Earnings by Educational Attainment for Persons Eighteen Years Old and Older, 1975 to 2003 (Inflation-Adjusted to 2003 Dollars)



Source: U.S. Census Bureau (2003).

Table 2.1 Students Who Enroll in Colleges and Universities within Twenty Months after Graduation from High School

	Total	Vocational-Technical	Two-Year College	Four-Year College
Class of 1980–1982				
Bottom quartile	57	12	16	29
Top quartile	80	6	19	55
Total	68	10	19	39
Class of 1992				
Bottom quartile	60	10	22	28
Top quartile	90	5	19	66
Total	75	7	23	45

Source: Ellwood and Kane (2000).

Table 2.2 Socioeconomic Status of Entering Classes by College Selectivity

	SES Quartiles		Total
	Bottom	Top	
Tier 1	3	74	100
Tier 2	7	46	100
Tier 3	10	35	100
Tier 4	16	35	100
Community colleges	21	22	100

Source: Carnevale and Rose (2004).

Table 2.3 **Percent of Students from the 1988 Eighth Grade Cohort**

	Bottom Quartile	Top Quartile	Gap
Graduated high school	80	97	17
Took the SAT	32	68	36
SAT score > 1200	2	15	13
Given SAT = 5-600, go to college	87	97	10
Given SAT = 5-600, attended most expensive colleges	20	52	32
Given starting a four-year college, graduation from college	44	78	34

Source: Bowen, Kurzweil, and Tobin (2005).

Table 2.4 **Patterns for Students Entering Nineteen Selective Colleges and Universities in 1995**

	Bottom Quartile	Top Quartile	Gap
Percentage of applicants from (compared to 25 percent of all students in each quartile)	11	50	39
Percentage of applicants admitted	34	43	9
Average SAT (public/private)	1169/1229	1259/1309	90/80
Percentage of admittees who enrolled	44	39	-5
Percentage of entrants who graduated	84	88	4
Earnings of 1976 full-time worker entrants after fifteen years*	\$68,000	\$86,000	\$18,000

Source: Bowen, Kurzweil, and Tobin (2005).

*For the 1976 entering class, for eleven of the nineteen schools with 1976 data.

Table 2.5 Unweighted and Weighted Sample Means

Variable	Weighted Mean	Unweighted Mean
Education variables		
Years of education	13.06	12.51
High school graduate = 1	0.848	0.760
Attend college = 1	0.460	0.347
College graduate = 1	0.213	0.138
Income and control variables		
Family income-needs	3.053	2.416
Log of family income-needs	0.943	0.679
Family wealth, 1984	158,483	110,132
Log of positive wealth, 1984	9.680	7.621
African American	0.153	0.441
Female	0.473	0.469
Average number of siblings	1.755	2.101
At least one parent graduated high school	0.769	0.633
At least one parent attended college	0.395	0.269
Proportion years with single parent	0.153	0.270
Number of location moves	2.518	2.831
Percent neighborhood dropouts	14.43	16.71
Negative wealth, 1984	0.039	0.052
Tuition and fees per FTE Public 87	1.631	1.592
Education data missing for parents	0.037	0.072
Wealth data missing, 1984	0.006	0.108

Source: Authors' calculations.

Table 2.6 Percentage of Youths in 1966 to 1970 Birth Cohort by Educational Attainment and Family Average Income-Needs

	Bottom Decile	Top Decile	Bottom Quartile	Top Quartile	Gap
Graduate high school	56.8	97.7	64.1	96.1	32
Attend college	19.5	78.2	21.6	71.2	49.6
Attend college, conditional on high school graduation	34.3	80.0	33.8	74.1	40.3
Graduate college	6.3	49.1	5.6	42.1	36.5
Graduate college, conditional on attending college	32.3	62.8	25.9	59.1	33.2
Years of schooling	11.2	14.6	11.8	14.2	2.4

Source: Authors' calculations.

Table 2.7 Percentage of Youths in 1966 to 1970 Birth Cohort by Educational Attainment and Family Wealth in 1984

	Bottom Decile	Top Decile	Bottom Quartile	Top Quartile	Gap
Graduate high school	49.7	98.5	63.9	97.9	34.0
Attend college	12.6	74.9	24.2	73.7	49.5
Attend college, conditional on high school graduation	25.4	76.1	37.8	75.3	37.5
Graduate college	3.0	47.8	8.6	44.1	35.5
Graduate college, conditional on attending college	23.8	63.7	35.7	59.9	24.2
Years of schooling	11.4	14.5	11.9	13.5	1.6

Source: Authors' calculations.

Table 2.8 Youths in 1966 to 1970 Birth Cohort by Educational Attainment and Average Income-Needs

	Bottom Decile	Top Decile	Bottom Quartile	Third Quartile	Second Quartile	Top Quartile	Total
High school graduates	6.6	11.6	19.0	25.2	27.1	28.7	100
College attendees	4.2	17.1	11.8	20.6	28.3	39.2	100
College graduates	2.9	23.2	6.6	17.4	25.9	50.1	100

Source: Authors' calculations.

Table 2.9 Youths in 1966 to 1970 Birth Cohort by Educational Attainment and Family Wealth

	Bottom Decile	Top Decile	Bottom Quartile	Third Quartile	Second Quartile	Top Quartile	Total
High school graduates	5.6	11.8	18.9	26.0	26.5	28.7	100
College attendees	2.7	16.5	13.2	18.8	28.3	39.8	100
College graduates	1.4	22.7	10.2	11.6	26.7	51.5	100

Source: Authors' calculations.

Table 2.10 Regression Results^a

Variable	Years of Education		High School Graduate		
	Parameter Estimate	Pr > t	Parameter Estimate	Pr > ChiSq	Marginal Effect
Intercept	11.540	<.0001	-0.001	0.998	0.000
Log of family income-needs 2-15	0.654	<.0001	<i>0.190</i>	0.092	0.041
Log of positive wealth, 1984	0.090	<.0001	0.081	<.0001	0.017
Negative wealth, 1984	0.396	0.148	<i>0.411</i>	0.052	0.089
African American	0.313	0.014	0.293	0.008	0.063
Female	0.416	<.0001	0.230	0.010	0.050
Average number of siblings 2-15	-0.066	0.103	-0.033	0.328	-0.007
At least one parent grad high school	0.567	<.0001	0.522	<.0001	0.112
At least one parent attend college	0.340	0.012	0.122	0.355	0.026
Proportion years w/ single parent 2-15	0.478	0.008	-0.058	0.702	-0.013
Number of location moves 2-15	-0.082	<.0001	-0.060	0.001	-0.013
Percent neighborhood dropouts 2-15	-0.026	<.0001	-0.016	0.005	-0.003
Tuition & fees per FTE Public 87	<i>-0.179</i>	0.052	0.005	0.950	0.001
Education info missing for parents	0.511	0.017	<i>0.324</i>	0.063	0.070
Wealth missing, 1984	<i>-0.430</i>	0.063	-0.144	0.420	-0.031
Elasticity of education variables with respect to financial resource variables					
Elasticity for family income ^b	0.048		0.042		
Elasticity for wealth, 1984 ^b	0.067		0.175		

Source: Authors' calculations.

^a Bold indicates the coefficient estimate is significant at the 5 percent level; italics indicates significant at the 10 percent level.

^b The first number is the total elasticity and the number in parentheses is the marginal elasticity. For example, the elasticity of family income on attend college is 0.549, of this .042 is the effect on high school graduation and .507 is the marginal elasticity on attending college conditional on high school graduation.

Attend College			College Graduate		
Parameter Estimate	Pr > ChiSq	Marginal Effect	Parameter Estimate	Pr > ChiSq	Marginal Effect
-0.968	0.002	-0.362	-1.922	<.0001	-0.251
0.617	<.0001	0.231	0.457	0.001	0.060
0.064	0.000	0.024	0.060	0.028	0.008
0.152	0.546	0.057	0.310	0.402	0.040
0.274	0.010	0.103	-0.012	0.931	-0.002
0.235	0.004	0.088	0.314	0.002	0.041
-0.072	0.043	-0.027	-0.068	0.162	-0.009
0.206	0.069	0.077	0.318	0.057	0.042
0.027	0.798	0.010	0.298	0.015	0.039
0.311	0.040	0.116	0.590	0.003	0.077
-0.042	0.019	-0.016	-0.059	0.016	-0.008
-0.019	0.000	-0.007	-0.017	0.017	-0.002
-0.193	0.012	-0.072	-0.123	0.202	-0.016
0.466	0.010	0.175	0.166	0.547	0.022
-0.360	0.128	-0.135	-0.838	0.088	-0.109
	0.549 (0.507)			0.685 (.136)	
	0.581 (0.406)			0.917 (.337)	

Table 2.11 **Predicted Education Values by Income and Assets**

Predicted Education	Bottom Quartile	Top Quartile
Years of education	12.192	13.607
Probability of high school graduate	0.759	0.916
Probability of attending college	0.208	0.637
Probability of graduating college	0.077	0.299

Source: Authors' calculations.

Note: The predicted education values are calculated from the regressions in table 2.10. Bottom and top quartile refer to the weighted median value of income/assets within the lowest and highest quartile; all other variables are kept at their actual value.

Table 2.12 Predicted Values of Educational Attainment

	All	Bottom 25%	Lower 25%	Upper 25%	Top 25%	Top 5%
Years of education						
Simulated 1970	12.916	11.674	12.657	13.298	14.028	14.547
Simulated 2000	12.849	11.531	12.547	13.240	14.074	14.686
Change	-0.066	-0.143	-0.110	-0.058	0.045	0.139
Change	-0.51%	-1.23%	-0.87%	-0.44%	0.32%	0.96%
Graduating high school						
Simulated 1970	0.833	0.653	0.829	0.901	0.949	0.972
Simulated 2000	0.827	0.640	0.821	0.898	0.949	0.974
Change	-0.006	-0.013	-0.008	-0.003	0.001	0.002
Change	-0.70%	-2.02%	-0.94%	-0.34%	0.07%	0.22%
Attending college						
Simulated 1970	0.430	0.153	0.346	0.516	0.704	0.823
Simulated 2000	0.412	0.127	0.311	0.494	0.714	0.851
Change	-0.018	-0.027	-0.035	-0.021	0.010	0.028
Change	-4.16%	-17.30%	-10.03%	-4.08%	1.46%	3.45%
Graduating from college						
Simulated 1970	0.205	0.046	0.129	0.235	0.409	0.544
Simulated 2000	0.200	0.039	0.115	0.224	0.421	0.580
Change	-0.005	-0.008	-0.014	-0.011	0.012	0.036
Change	-2.50%	-16.76%	-10.66%	-4.81%	2.92%	6.60%

Source: Authors' calculations.

Note: Weighted, based on coefficient estimates in table 2.10. For this simulation, average family income was held constant and the percent of income held by each income quintile was adjusted to match the percent of income held by income quintile from 1970 and 2000. Thus, this simulation reflects the change in inequality from 1970 to 2000 holding constant overall level of income.

Table 2.13 The Effects of Additional Schooling

CATEGORY	ECONOMIC NATURE
Individual market productivity	Private; market effects.
Nonwage labor market remuneration	Private; market and nonmarket effects, e.g., fringe benefits and working conditions.
Intrafamily productivity	Private; some external effects; market and nonmarket effects, e.g., relationship between wife's schooling and husband's earnings.
Child quality: level of education and cognitive development	Private; some external effects; market and nonmarket effects, e.g., child education level and cognitive development are positively related to mother's and father's education.
Child quality: health and fertility	Private; some external effects, e.g., child health and reduced chances that daughters will give birth out of wedlock as teenagers are positively related to parents' education.
Own health	Private; modest external effects, e.g., own schooling positively affects one's health status, increases life expectancy, lowers prevalence of severe mental illness (including depression), and improves ability to deal with stressful events.
Consumer, marital and labor market efficiency	Private; some external effects; nonmarket effects, e.g., schooling leads to more efficient consumer activities; reduced costs of job search, increased regional mobility, and improved sorting in marriage market.
Attainment of desired family size	Private; e.g., contraceptive efficiency is positively related to schooling.
Charitable giving	Private and public; nonmarket effects, e.g., schooling increases donations of both time and money.
Savings	Private; some external effects, e.g., more schooling is associated with higher savings rates.
Technological change	Public; e.g., schooling is positively associated with research, development and diffusion of technology.
Social cohesion	Public; e.g., schooling is associated with increased voting, reduced alienation and social inequalities, opposition to government repression, reduced support for use of violence in protests, increased trust of others and membership in community organizations.
Self-reliance or economic independence	Private and public; e.g., more education associated with reduced dependence on transfers during prime working years.
Crime reduction	Public; e.g., schooling is associated with reduced criminal activity and a reduction in recidivism.

Source: Wolfe and Haveman (2003).

Table 2.14 **Simulation of Income Distribution 1970 and 2000**

Income Percentile	U.S. Actual % of Income		Simulated Average Income		Simulated Income as % of Actual		Average Simulated Income/Needs	
	1970	2000	1970	2000	1970	2000	1970	2000
0 to 20	5.40	4.30	12,000	9,600	67.4	53.9	0.820	0.656
20 to 40	12.20	9.80	27,200	21,900	90.5	72.9	1.839	1.481
40 to 60	17.60	15.40	39,200	34,300	101.6	88.9	2.780	2.433
60 to 80	23.80	22.70	53,000	50,500	106.2	101.2	3.695	3.520
80 to 90	15.30	15.80	68,000	70,500	103.5	107.3	4.686	4.859
90 to 95	10.00	10.70	88,600	95,500	106.6	114.9	6.014	6.482
95 to 100	15.60	21.10	139,000	188,200	107.5	145.5	9.067	12.277
Total			\$44,500	\$44,500				

Source: Authors' calculations.

Table 4.1 Public Higher Education in Ohio, First-Time Undergraduates

	All Schools	Four-Year Universities		Two-Year Colleges		
		Selective	Nonselective	Branch	Community	Technical
Age in 1998	21.78 (7.88)	18.55 (1.94)	21.20 (6.88)	21.76 (8.19)	24.23 (9.57)	26.34 (11.25)
Female	53.51	55.20	53.75	55.46	50.66	58.14
White	80.52	85.53	71.01	82.82	78.66	92.04
Black	10.33	6.06	16.43	2.53	13.86	4.88
Hispanic	1.89	1.88	1.79	0.59	2.49	0.63
Asian	1.57	2.57	1.55	0.49	1.18	0.47
Race unknown	4.29	2.67	7.93	13.06	1.91	1.43
Ohio resident	91.92	85.03	93.59	94.09	95.61	97.85
Full-time fall 1998	54.73	82.38	56.46	53.17	30.75	25.55
Part-time fall 1998	20.19	11.88	21.56	20.54	26.00	31.38
Less than part-time	25.08	5.75	21.99	26.29	43.24	43.07
Four-year degree intent	—	—	—	—	35.24	10.22
Two-year degree intent	—	—	—	—	28.48	50.40
ACT composite score (maximum 36)	21.37 (4.36)	23.31 (3.99)	20.73 (4.31)	19.77 (3.68)	19.25 (3.79)	18.61 (3.56)
Observations	[37,227] 65,977	[16,103] 20,538	[8,041] 12,145	[4,204] 6,280	[7,816] 23,385	[1,063] 3,629

Source: Authors' computations using data from the Ohio Board of Regents.

Note: Four Ohio colleges without clear records on which courses were considered remedial during the 1998–99 school year are excluded (Kent State University, University of Cincinnati, Hocking Technical College, and Lima Technical College).

Standard deviations are shown in the parentheses. The complete sample is not used in calculating the means for full/part/less than part-time due to missing information for approximately seven percent of the sample.

The number of observations used to calculate the mean ACT score (the number who took the exam) is shown in brackets. The selective universities are defined as “competitive” institutions by Barron’s Educational Guides (1997). Full-time is defined as taking twelve or more credit hours during the first term (Fall 1998); part-time constitutes taking six to eleven credits, and less than part-time means students took less than six credits during the first term. Four-year degree intent means the student noted wanting to get a bachelor’s degree or transfer to a four-year college.

Table 4.2 Remediation in Ohio Public Higher Education

	All Schools	Four-Year Universities		
		Selective	Nonselective	
In Math or English				
Remediation	36.18%	14.25%	34.65%	
In Remedial Math	29.70%	11.07%	25.29%	
In Remedial English	20.08%	5.72%	21.27%	
Observations	65,977	20,538	12,145	
		Two-Year Colleges		
	All Schools	Branch	Community	Technical
In Math or English				
Remediation	36.18%	43.90%	52.20%	48.83%
In Remedial Math	29.70%	36.89%	45.64%	34.75%
In Remedial English	20.08%	19.17%	29.69%	36.98%
Observations	65,977	6,280	23,385	3,629

Source: Authors' computations using data from the Ohio Board of Regents.

Notes: The credits completed are totals up to the spring 2002 term (four years). Credits earned at colleges with the quarter system have been converted to semester hours. The selective universities are defined as competitive institutions by Barron's Educational Guides (1997) and include Bowling Green State University, Miami University, Ohio State University, Ohio University, and Youngstown State University.

Table 4.3 Placement In and Out of Remediation by Background (Means)

	Four-Year Colleges				Two-Year Colleges			
	None	Math	English	Math and English	None	Math	English	Math and English
Age in 1998	19.47 (4.70)	19.71 (4.49)	19.41 (4.10)	20.15 (4.63)	26.39 (11.44)	21.82 (6.89)	21.72 (6.93)	21.43 (6.11)
Female	54.41	62.87	44.74	52.87	48.52	59.34	48.87	55.55
White	83.52	75.60	68.90	54.19	83.21	86.03	80.43	70.30
Black	6.43	16.05	20.25	35.09	6.60	7.81	12.40	22.97
Hispanic	1.73	2.52	1.29	2.79	1.34	2.04	2.46	3.03
Asian	2.42	0.98	2.52	0.96	0.95	0.98	1.17	0.96
Ohio Resident	86.74	92.95	92.90	94.92	93.25	97.65	97.79	98.09
Full-time fall 1998	79.34	55.00	58.80	36.11	31.49	42.40	38.02	34.35
Part-time fall 1998	11.82	28.57	22.84	31.89	19.37	30.37	27.60	33.90
Less than part-time	8.84	16.43	18.36	32.00	49.14	27.23	34.37	31.76
Four-year degree intent	—	—	—	—	40.11	55.20	43.32	45.32
Two-year degree intent	—	—	—	—	18.74	28.90	36.76	33.94
Observations	25,549	3,377	1,788	1,969	16,559	7,245	2,484	7,006

Source: Authors' computations using data from the Ohio Board of Regents.

Notes: Standard deviations are shown in the parentheses. The complete sample is not used in calculating the means for full/part/less than part-time due to missing information for approximately seven percent of the sample. Full-time is defined as taking twelve or more credit hours during the first term (Fall 1998); part-time constitutes taking six to eleven credits, and less than part-time means students took less than six credits during the first term. Four-year degree intent means the student noted wanting to get a bachelor's degree or transfer to a four-year college. Students at university branch campuses (two-year institutions) are assumed as having four-year degree intent.

Table 4.4 Percentage of Group Placed in Remediation

	All Schools	Four-Year Universities		Two-Year Colleges		
		Selective	Nonselective	Branch	Community	Technical
Age 18 to 20	37.12	13.78	37.31	48.20	66.36	60.78
Age 21 to 23	45.70	35.08	28.21	55.66	51.39	55.30
Age 24+	31.69	40.53	26.19	27.61	32.29	37.54
Male	34.23	14.23	33.13	43.01	46.92	46.94
Female	37.87	14.26	35.95	44.62	57.34	50.19
White	33.90	12.91	29.96	47.97	49.29	47.75
Black	59.84	35.37	57.89	65.41	69.78	66.67
Hispanic	46.79	18.60	41.74	72.97	65.35	56.52
Asian	25.41	6.45	33.51	29.03	52.17	82.35
Full-time fall 1998	27.30	10.41	26.77	42.98	62.16	52.29
Part-time fall 1998	53.15	29.90	48.66	64.50	60.39	67.75
Less than part-time	38.55	33.70	42.14	29.68	40.56	34.31
Four-year degree intent	—	—	—	—	64.20	54.72
Two-year degree intent	—	—	—	—	64.38	60.03

Source: Authors' computations using data from the Ohio Board of Regents.

Notes: The figures reflect the percentage of that group that was placed in remediation at that type of institution. The selective universities are defined as competitive institutions by Barron's Educational Guides (1997) and include Bowling Green State University, Miami University, Ohio State University, Ohio University, and Youngstown State University. Full-time is defined as taking twelve or more credit hours during the first term (Fall 1998); part-time constitutes taking six to eleven credits, and less than part-time means students took less than six credits during the first term. Four-year degree intent means the student noted wanting to get a bachelor's degree or transfer to a four-year college.

Table 4.5 Percentage of the Income Group Placed in Remediation

Financial Background	No Remediation	Remediation	Observations
Less than \$18,000	50.23	49.77	2,196
\$18,000 to \$24,000	55.58	44.42	2,008
\$24,000 to \$30,000	62.24	37.76	2,227
\$30,000 to \$36,000	64.19	35.81	2,642
\$36,000 to \$42,000	65.24	34.76	3,245
\$42,000 to \$50,000	67.05	32.95	4,136
\$50,000 to \$60,000	69.68	30.32	4,697
\$60,000 to \$80,000	72.31	27.69	5,597
\$80,000 to \$100,000	78.90	21.10	2,957
More than \$100,000	82.06	17.94	2,743
Total Sample	68.09	31.91	32,448

Source: Authors' computations using data from the Ohio Board of Regents.

Table 4.6 Remedial Placement Compared to Academic Preparation and Achievement

	Selective Four-Year Colleges		Nonselective Four-Year Colleges		Two-Year University Branches		Community Colleges	
	None	Remed.	None	Remed.	None	Remed.	None	Remed.
Took ACT	78.20	79.67	67.10	64.52	65.29	69.06	29.13	37.35
ACT overall score (36 max)	24.03 (3.67)	19.03 (3.01)	22.29 (4.08)	17.69 (2.90)	21.22 (3.63)	18.02 (2.90)	21.17 (3.89)	17.88 (3.06)
Placement into Math Remediation								
Average HS math GPA	3.35 (0.61)	2.65 (0.70)	3.10 (0.75)	2.48 (0.78)	3.03 (0.75)	2.51 (0.79)	2.92 (0.76)	2.46 (0.78)
# Semesters of math in HS	7.70 (0.80)	7.04 (1.24)	7.48 (1.04)	6.95 (1.37)	7.31 (1.15)	6.89 (1.42)	7.20 (1.22)	6.84 (1.39)
ACT math score (36 max)	24.03 (4.28)	18.27 (2.92)	22.09 (4.66)	17.39 (3.00)	21.04 (4.02)	17.46 (2.81)	20.77 (4.16)	17.51 (2.90)
Placement into English Remediation								
Average HS English GPA	34.61 (5.23)	29.68 (6.30)	32.15 (6.51)	27.74 (6.35)	31.80 (6.30)	28.32 (6.57)	30.51 (6.88)	27.39 (6.65)
# Semesters of English in HS	7.91 (0.53)	7.82 (0.73)	7.87 (0.64)	7.74 (0.92)	7.82 (0.70)	7.72 (0.90)	7.81 (0.74)	7.70 (0.92)
ACT English Score (36 max)	23.51 (4.22)	18.42 (3.97)	21.55 (4.61)	16.73 (3.78)	20.47 (4.46)	17.09 (3.87)	20.35 (4.63)	16.90 (4.01)
ACT reading Score (36 max)	24.47 (5.12)	19.41 (4.74)	22.68 (5.36)	17.80 (4.46)	21.51 (5.17)	18.36 (4.62)	21.63 (5.39)	18.09 (4.68)
Observations	13,773	2,331	5,326	2,715	2,300	1,904	3,256	4,559

Source: Authors' computations using data from the Ohio Board of Regents.

Notes: Standard deviations are shown in the parentheses. The number of observations is the number who took the ACT at that institution (not the full sample number). The selective universities are defined as "competitive" institutions by Barron's Educational Guides (1997) and include Bowling Green State University, Miami University, Ohio State University, Ohio University, and Youngstown State University.

Table 4.7 College Course-Taking Behavior over Six Years

	Four-Year Universities				Two-Year Colleges			
	None	Math Remed.	English Remed.	Math and English	None	Math Remed.	English Remed.	Math and English
Total credit hours	104.80 (50.71)	78.90 (52.41)	72.09 (54.35)	57.15 (48.63)	37.74 (46.6)	51.39 (46.18)	41.14 (42.49)	38.72 (39.05)
Remedial courses:	—	2.75	3.32	6.15	—	3.14	3.03	7.09
Total credit hours		(2.76)	(2.83)	(5.13)		(3.22)	(3.35)	(6.18)
Proportion of credits in remedial courses	—	0.06	0.10	0.21	—	0.13	0.16	0.33
Baccalaureate courses:	57.43	35.24	32.48	20.60	9.46	10.97	6.50	4.44
Total credit hours	(37.12)	(35.60)	(35.92)	(29.53)	(22.84)	(22.15)	(17.94)	(13.43)
Proportion of credits in baccalaureate courses	0.49	0.33	0.33	0.23	0.13	0.12	0.08	0.06
General courses:	38.84	35.52	31.15	25.58	16.80	27.05	18.66	17.79
Total credit hours	(19.33)	(21.03)	(21.98)	(20.85)	(22.05)	(23.49)	(20.26)	(20.09)
Proportion of credits in general courses	0.42	0.53	0.49	0.48	0.41	0.56	0.46	0.42
Technical courses:	1.94	3.75	4.02	4.35	10.29	9.40	12.62	9.19
Total credit hours	(7.36)	(9.90)	(9.71)	(10.33)	(16.04)	(15.65)	(18.33)	(15.78)
Proportion of credits in technical courses	0.03	0.06	0.07	0.08	0.44	0.19	0.30	0.20
Observations	25,419	3,373	1,788	1,967	16,559	7,245	2,484	7,006

Source: Authors' computations using data from the Ohio Board of Regents.

Notes: Standard deviations are shown in the parentheses. The number of observations is the number who took the ACT at that institution (not the full sample number). The selective universities are defined as competitive institutions by Barron's Educational Guides (1997) and include Bowling Green State University, Miami University, Ohio State University, Ohio University, and Youngstown State University.

Table 4.8 Remedial Placement and College Educational Outcomes

	Four-Year Colleges				Two-Year Colleges (with degree intent)			
	None	Math Remed.	English Remed.	Math and English	None	Math Remed.	English Remed.	Math and English
After four years (up to spring 2002)								
Bachelor's degree	60.55	31.57	27.40	12.75	13.16	9.37	5.93	2.97
Associate's degree	3.89	4.62	4.98	4.47	21.61	18.28	19.91	12.59
Certificate	0.97	0.68	0.50	0.25	1.77	1.51	2.26	1.89
After six years (up to spring 2004)								
Bachelor's degree	64.73	36.27	33.05	18.99	16.08	12.56	7.64	4.47
Associate's degree	4.25	5.36	5.87	5.18	22.62	19.84	20.86	14.21
Certificate	1.02	0.77	0.50	0.36	1.84	1.61	2.36	2.11
Transferred up during period	2.01	2.70	3.02	2.54	22.41	19.86	15.18	10.75
Stopped out, no return	26.18	45.95	49.89	60.65	58.10	60.61	65.16	70.97
Stopped out term 1	4.47	4.42	5.98	5.29	19.76	9.67	16.24	11.04
Stopped out term 2	4.99	8.18	11.19	11.08	11.20	12.10	15.43	16.37
Stopped out year 2	5.00	8.75	10.01	13.47	9.03	13.05	11.41	14.96
Stopped out year 3	3.55	7.14	7.27	9.71	6.00	8.37	7.59	10.48
Stopped out year 4	3.39	7.59	5.87	8.29	4.94	7.01	6.33	7.26
Transferred down	13.82	24.58	20.08	27.05	4.25	4.96	4.07	3.35
Observations	25,444	3,373	1,788	1,967	9,744	6,093	1,989	5,553

Source: Authors' computations using data from the Ohio Board of Regents.

Notes: The sample of students at two-year colleges had degree intent (associate's or bachelor's degree). Stopping out means the student did not return to any institution within the Ohio public higher education system during the entire period. Transferring up is defined for nonselective, four-year colleges as a transfer to a selective university, for university branches as a transfer to a selective or nonselective four-year college, and for community colleges as a transfer to any four-year institution. Transferring down is the opposite motion in the hierarchy of institutions.

Table 4.9 **Students with Degree Intent**

		Four-Year Universities		Two-Year Colleges	
		Selective	Non- selective	University Branch	Community
Demographic characteristics and achievement					
Age in 1998		18.35 (0.49)	18.44 (0.56)	18.42 (0.54)	18.47 (0.58)
Female		57.98	55.07	57.13	57.68
Black		4.28	9.61	1.29	5.86
Hispanic		1.53	1.26	0.48	1.56
Asian		2.51	1.63	0.55	1.24
Ohio resident		99.86	99.96	99.96	100.00
ACT composite score (maximum 36)		23.66 (3.86)	21.65 (4.28)	20.23 (3.60)	19.53 (3.62)
Educational outcomes after four years					
In Remedial Math		8.31	17.15	33.16	54.69
In Remedial English		4.28	15.47	16.51	29.35
Experience with remediation					
Completed bachelor's degree	No remediation	77.78	57.12	43.28	16.45
	In remediation	54.75	32.27	27.63	10.87
Completed associate's degree	No remediation	2.01	5.86	32.51	47.58
	In remediation	3.96	5.82	20.68	31.65
Stopped out	No remediation	10.35	20.68	25.45	33.74
	In remediation	21.53	33.31	36.23	44.88
Observations		13,326	4,841	2,708	2,814

Source: Authors' computations using data from the Ohio Board of Regents.

Notes: The sample is restricted to full-time students aged eighteen to twenty with degree intent who were first-time freshmen in fall 1998. Additionally, to be included in the sample, students must have taken the ACT and had valid zip code information.

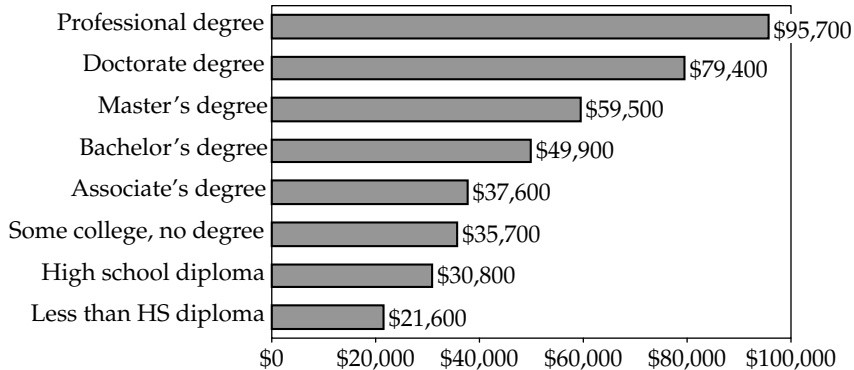
Standard deviations are shown in the parentheses. Stopping out means the student did not return to *any* institution within the Ohio public higher education system during the entire period. Technical colleges are excluded.

Table 4.10 Remedial Credits Attempted and Completed

Credits Completed	Credits Attempted								
	1	2	3	4	5	6	7	8	9
Math remediation									
0	100.0	28.16	34.57	38.34	18.66	22.84	21.99	16.2	19.5
1	0.0	0	0	0	0	0	0	0	0
2		71.84	0	1.84	23.33	2.5	2.63	7.85	5.35
3			65.43	0	0.52	28.85	26.5	1.96	18.24
4				59.83	0	0.44	15.6	17.79	2.83
5					57.49	0	3.01	7.8	0.94
6						45.37	0	2.83	29.25
7							30.26	0	0
8								45.57	0
9									23.9
English remediation									
0	37.78	22.3	24.32	30.63	25.39	26.31	13.79	17.86	18.25
1	62.22	0	0.11	0.73	0	0	1.72	0.08	0
2		77.7	0.11	3.14	11.29	0.64	13.79	5.74	1.59
3			75.45	0.58	0.52	8.56	24.14	0.56	22.22
4				64.92	0	0.54	13.79	11.88	5.56
5					62.81	0	8.62	11.24	0
6						63.95	0	0.56	25.4
7							24.14	0	1.59
8								52.07	0.79
9									24.6

Source: Authors' computations using data from the Ohio Board of Regents.

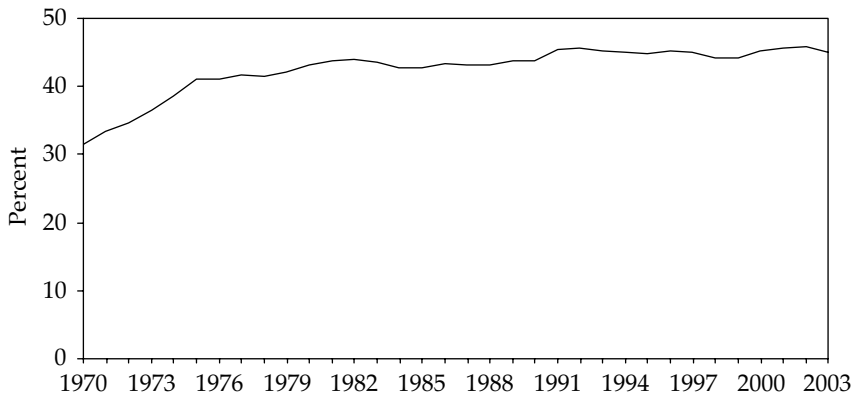
Figure 5.1 Median Earnings by Education, 2003



Source: The College Board (2004a, figure 1).

Note: Includes full-time year-round workers aged twenty-five and older.

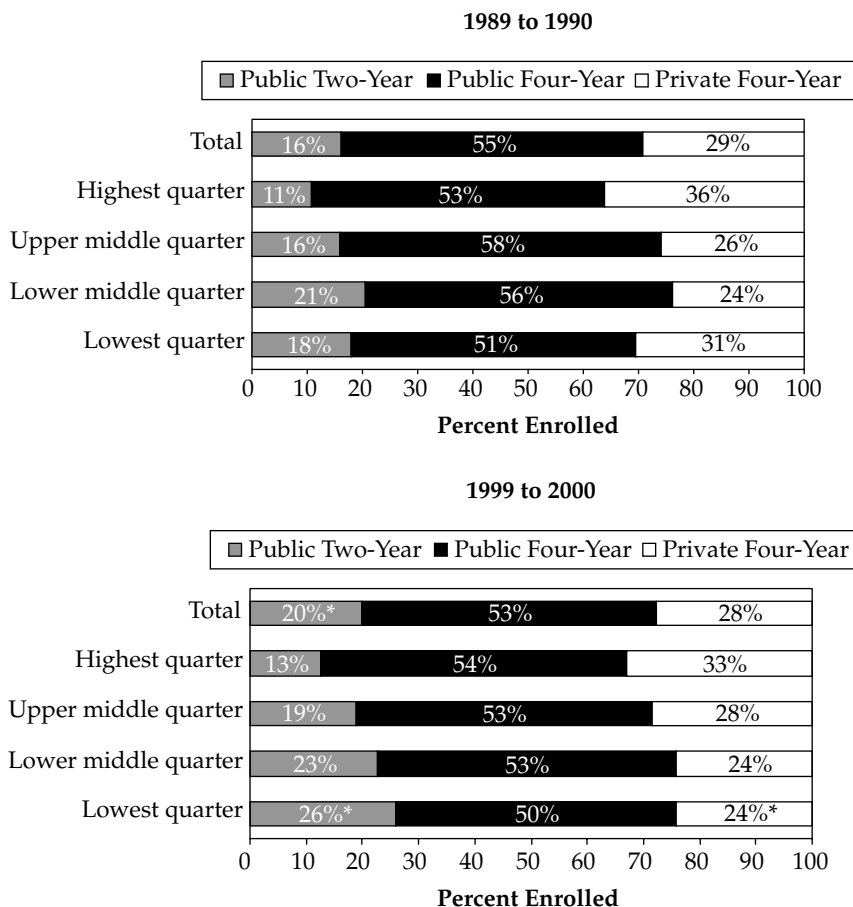
Figure 5.2 Undergraduate Enrollment in Two-Year Colleges as a Percentage of Total Undergraduate Enrollment in Degree-Granting Two- and Four-Year Postsecondary Institutions: Fall 1970 to 2003



Source: National Center for Education Statistics (2005a, table 7-1).

Note: Includes both full-time and part-time undergraduates. Enrollment in 2003 is projected based on data through 2000 and alternative assumptions (see NCES 2005-065 for more detail).

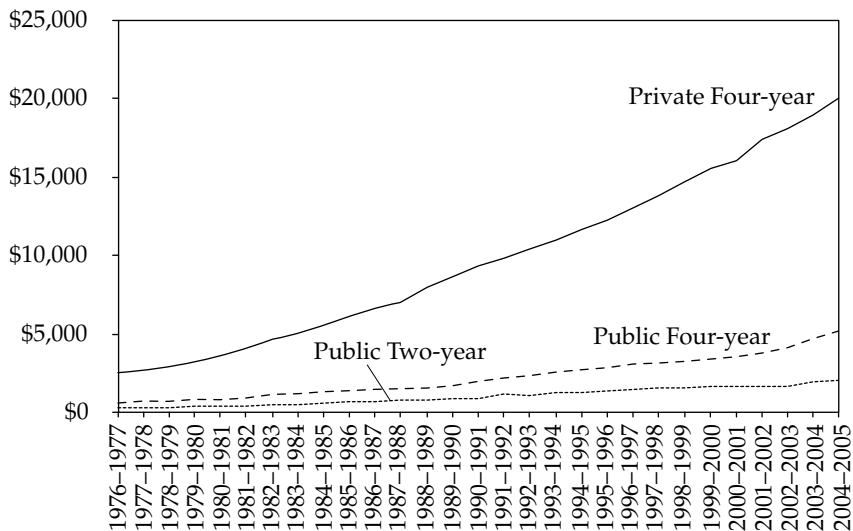
Figure 5.3 Distribution of Full-Time, Full-Year Dependent Undergraduates by Type of Institution, by Family Income



Source: National Center for Education Statistics (2004, table 1); Authors' calculations.
 * Indicates a statistically significant change from the 1989–1990 school year.

Notes: Values may not sum to 100 percent due to rounding. These figures include only full-time, full-year dependent undergraduates and therefore differ from figure 5.2. However, almost 50 percent of all students are financially independent and these students are both more likely to be from lower-income families and are largely concentrated in community colleges. Table 5.1 includes private for-profit less-than-four-year institutions, which have been omitted here and the resulting percentages were recalculated.

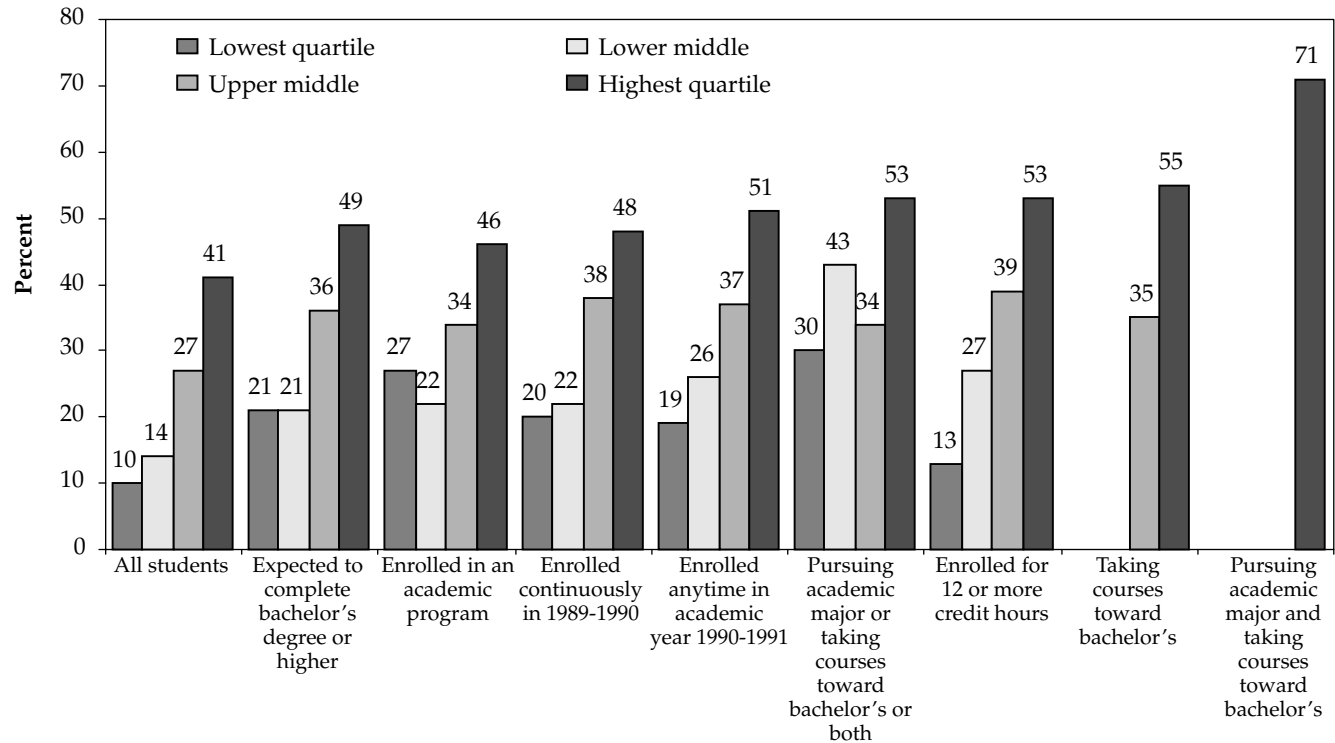
Figure 5.4 Average Published Tuition and Fee Charges



Source: The College Board (2004b, table 4a).

Note: Enrollment weighted. Current dollars.

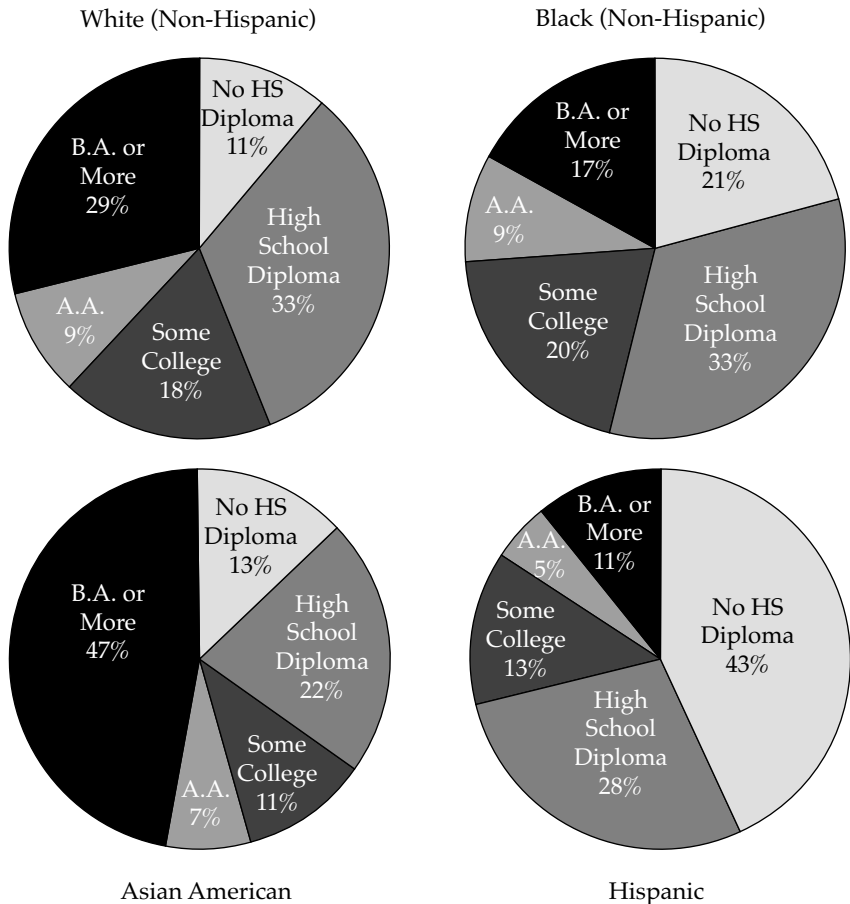
Figure 5.5 Transfer Behavior of Students Enrolled in Public Two-Year Institutions, by Socioeconomic Status



Source: National Center for Education Statistics (2001, figure 6).

Notes: Among 1989 to 1990 beginning postsecondary students. Variables are as of the 1989-1990 school year unless explicitly specified otherwise. Categories not shown are due to small sample sizes.

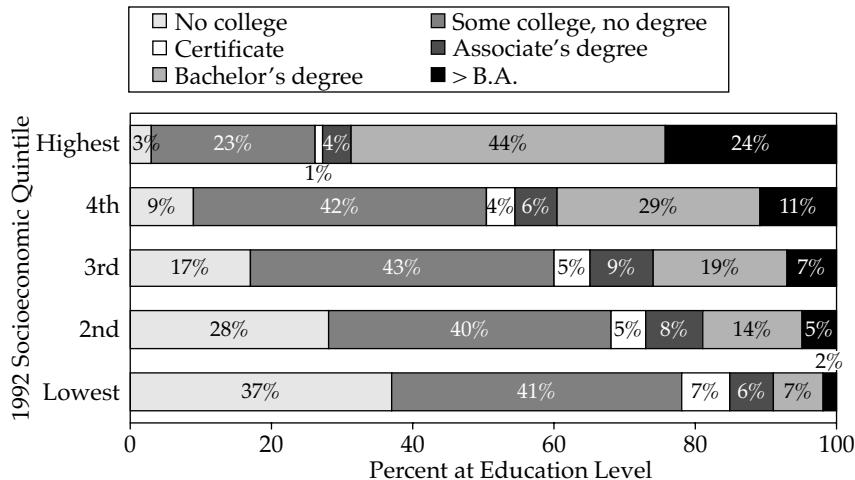
Figure 5.6 Highest Education Level by Race-Ethnicity, 2002



Source: The College Board (2004a, figure 25).

Notes: Includes persons twenty-five and older. Values may not sum to 100 percent because of rounding.

**Figure 5.7 Education Level in 2000 by Socioeconomic Status:
1992 High School Graduates**



Source: The College Board (2004a, figure 27).

Notes: Values may not sum to 100 percent due to rounding. Socioeconomic status is determined by family income, parent occupation, and the highest level of education attained by parents. Highest level of education completed by December 2000 and includes class of 1992 students who had received a high school diploma by July 1993.

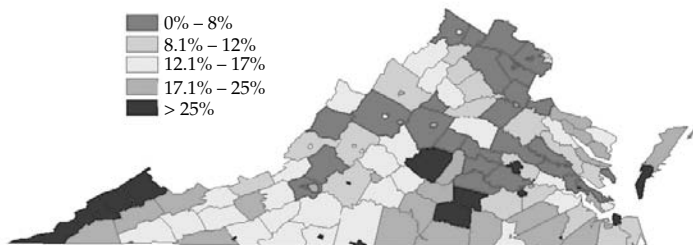
Table 5.1 Selected State Undergraduate Enrollment as Percentage of National, 2004

	All Postsecondary Undergraduate Enrollment	Public Four-Year University Undergraduate Enrollment	Community College Undergraduate Enrollment
California	15.7%	9.2%	24.4%
Texas	7.0%	7.1%	8.1%
New York	6.1%	5.5%	4.0%
Florida	4.9%	4.0%	5.7%
Illinois	4.6%	2.9%	5.7%
All other states (total)	61.7%	71.2%	52.2%

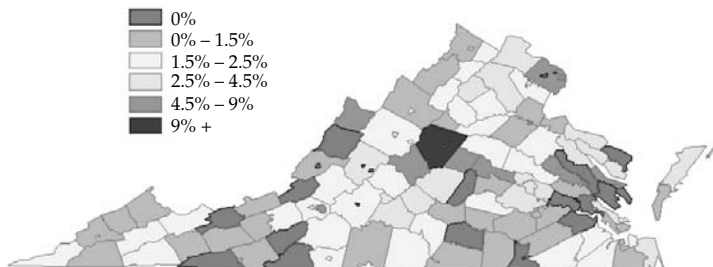
Source: National Center for Public Policy and Higher Education (2004); authors' calculations.
Note: Enrollment includes all full- and part-time undergraduate students at public two-year and public and private four-year institutions. Totals may not sum to 100 due to rounding.

Figure 6.1 Poverty and Enrollment at the University of Virginia by District

Panel A. Percent of Children Living Below the Poverty Line



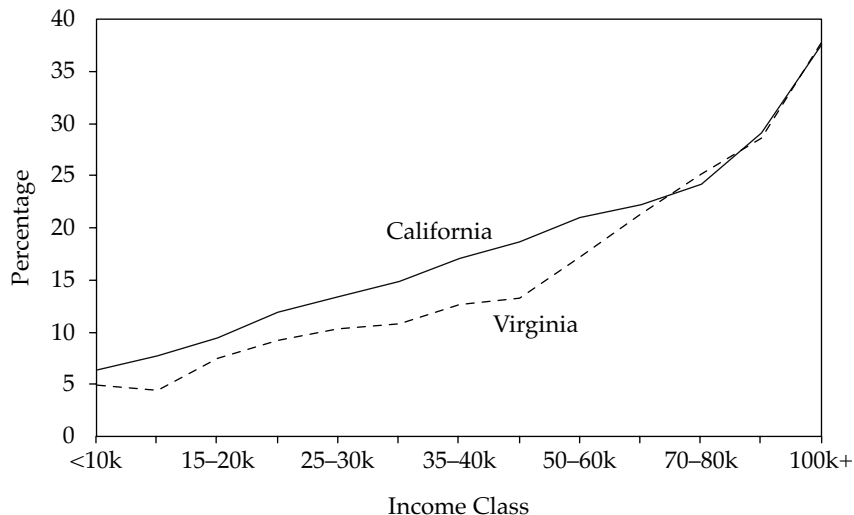
Panel B. Percentage of Students Graduating from Public High Schools Attending the University of Virginia



Source Panel A: Census 2000 Summary File 3 (SF 3). TM-PCT052.

Source Panel B: University of Virginia Databook – IAAS (Fall 2004), Virginia Department of Education (Spring 2004).

Figure 6.2 Students Scoring 1200 or Better on SAT



Source: Tebbs and Turner (2005a).

Note: Tabulations from the “Test-Takers Data” covering SAT performance and responses to the Student Descriptive Questionnaire were provided by Jesse Rothstein and are limited to respondents with known race-ethnicity. See Card and Krueger (2004) for additional details about the data.

**Table 6.1 College Enrollment Rates for Dependent Individuals
Ages Eighteen to Twenty-four, 2003**

Family Income	Two-Year		Four-Year		Total
	Full-Time	Part-Time	Full-Time	Part-Time	Post-secondary
Total	0.10	0.03	0.31	0.03	0.55
Less than \$10,000	0.04	0.02	0.14	0.01	0.37
\$10,000 to \$14,999	0.06	0.03	0.20	0.03	0.44
\$15,000 to \$19,999	0.09	0.05	0.18	0.01	0.44
\$20,000 to \$29,999	0.09	0.03	0.20	0.02	0.45
\$30,000 to \$39,999	0.11	0.02	0.24	0.04	0.50
\$40,000 to \$49,999	0.10	0.07	0.23	0.03	0.50
\$50,000 to \$74,999	0.11	0.03	0.32	0.03	0.56
\$75,000 to \$99,999	0.11	0.05	0.38	0.03	0.64
\$100,000 to \$149,999	0.13	0.03	0.44	0.05	0.71
\$150,000 and over	0.10	0.02	0.47	0.03	0.69
Not reported	0.07	0.03	0.31	0.02	0.53

Source: U.S. Census Bureau (2003, table 14).

http://www.census.gov/population/socdemo/school/cps2003/tab14_06.xls.

**Table 6.2 Low-Income Students at Selective Colleges and Universities,
1995 Entering Cohort**

	Share Bottom Income Quartile			
	Apply	Admit	Enroll	Graduate
All expanded college and beyond	12%	9%	11%	11%
Ivy League universities	12%	8%	9%	8.2%
Public universities	12%	11%	12%	10.5%
Liberal arts colleges	11%	8%	10%	9.9%
Women's colleges	17%	13%	16%	15.5%

Source: Bowen, Kurzweil, and Tobin (2005, figure 5.1). Reprinted with permission.

Table 6.3 Cost of Attendance at Selective Public and Private Universities

School	2005–2006 (In-State)	2005–2006 (Out-of-State)
Harvard	\$44,350	\$44,350
Princeton	\$43,385	\$43,385
Yale	\$43,700	\$43,700
Brown	\$44,530	\$44,530
University of North Carolina–Chapel Hill	\$14,294	\$28,616
University of Virginia	\$16,714	\$33,769 to \$34,669
University of Maryland	\$19,633	\$31,957
University of Michigan–Ann Arbor	\$19,643	\$38,031
Ohio State	\$20,283	\$31,506
University of Illinois at Urbana-Champaign	\$19,240	\$33,656

Source: Authors' tabulations.

Table 6.4 Prices of Undergraduate Schools, 2001 to 2002

	Lower			Upper		Sticker Price (Unaided)
(Lower Bound)	Lowest 0	Middle \$24,001	Middle \$41,001	Middle \$61,379	High \$91,701	
Average net price						
COFHE schools	\$7,552	\$8,547	\$11,557	\$16,365	\$23,690	\$33,831
Coed colleges	\$5,487	\$7,280	\$10,374	\$15,259	\$22,738	\$33,403
Women's colleges	\$7,863	\$9,676	\$13,134	\$18,297	\$25,663	\$33,708
Ivy League universities	\$8,169	\$9,200	\$11,893	\$16,499	\$23,949	\$34,508
Non-Ivy universities	\$7,495	\$7,956	\$11,238	\$16,249	\$23,399	\$33,167
Net price/Sticker price						
COFHE schools	22%	25%	34%	48%	70%	
Coed colleges	17%	22%	31%	46%	68%	
Women's colleges	23%	29%	39%	54%	76%	
Ivy League universities	24%	27%	34%	48%	69%	
Non-Ivy universities	22%	24%	34%	49%	70%	

Source: Hill, Winston, Boyd (2005, table 2). Reprinted with permission.

Table 6.5 **Distribution of SAT-Test Takers**

(Lower Bound)	National Test-Taking Population (1 in 10 Sample)						Total Students
	Lower			Upper			
	Lowest 0	Middle \$24,001	Middle \$41,001	Middle \$61,379	High \$91,701	Total	
1600	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	30
1520	0.1%	0.2%	0.2%	0.5%	1.3%	0.5%	356
1420	0.5%	0.8%	1.4%	2.1%	4.7%	2.0%	1447
1300	1.8%	3.4%	5.3%	7.5%	11.9%	6.3%	4557
1220	2.6%	5.1%	7.0%	9.1%	12.6%	7.6%	5492
1110	8.1%	12.3%	15.6%	18.5%	21.9%	15.8%	11355
1030	9.0%	13.4%	15.0%	16.1%	14.9%	13.9%	10031
910	20.5%	23.5%	24.1%	22.6%	18.1%	21.7%	15648
830	25.3%	15.4%	14.0%	11.2%	7.9%	12.8%	9200
740	8.8%	13.7%	10.0%	7.6%	4.3%	10.1%	7242
620	15.2%	8.8%	5.4%	3.6%	1.8%	6.5%	4668
500	6.8%	2.9%	1.6%	1.0%	0.5%	2.3%	1681
400	1.4%	0.5%	0.2%	0.1%	0.1%	0.4%	308
Total students	12,117	13,665	14,084	16,000	16,149	72,015	72,015

Source: Hill and Winston (2005, tables 1, A1, and A2).

Table 6.6 Programs to Increase Enrollment of Low-Income Students at State Flagship Universities

School	Program Name	Program Description	Date of Announcement	First Class Affected (Date of Entry)	Amount of New Money (Annually) When Fully Implemented
Harvard	None	Harvard covers the entire cost of attendance for students with family incomes below \$40,000 through grants and work-study, not loans. In addition, Harvard has greatly reduced the contributions it expects from families with incomes between \$40,000 and \$60,000. ^a	February 2004	Fall 2004	\$2 million
Princeton	None	Princeton meets 100 percent of need for all students through grants and work-study, not loans. Princeton no longer taxes home equity in the financial aid formula and has reduced the rate at which student savings are taxed from 35 to 5 percent, the tax rate on parental savings.	January 2001	Fall 2001 ^b	\$10.3 million (for one year, in 2003)

Yale	None	Yale covers the entire cost of attendance for students with family incomes below \$45,000 through grants and work-study, not loans. In addition, Yale has approximately halved the contributions it expects from families with incomes between \$45,000 and \$60,000. ^c	March 2005	Fall 2005	\$3 million
Brown	Sidney E. Frank Endowed Scholarship Fund	Approximately 128 of Brown's neediest students (typically those with family incomes below \$30,000) will have their college costs covered by a combination of expected family contribution, grants, and work-study, not loans. This program is funded by a \$100 million gift from alumnus Sidney E. Frank. ^d	September 2004	Fall 2005	\$100 million total (not per year)

Source: Authors' compilations based on information available in August 2005.

^a This is coupled with more active recruitment of low-income students, a summer academy for low-income Boston students to prepare them for college and a consideration of financial difficulty in admissions decisions.

^b Princeton's initiatives began in 1998 with the elimination of loans for low-income new matriculants.

^c Yale has also made other recent changes to its financial aid programs including allowing students to take summer school classes on financial aid and paying for a trip for international students to return home each year.

^d Starting in fall 2002, Brown no longer required freshmen to participate in work-study and starting with the entering class of 2003, Brown's admissions have been need-blind.

Table 6.7 Programs Designed to Increase Enrollment of Low-Income Students at State Flagship Universities

State-School	Program Name	Program Description	Date of Announcement	First Class Affected (Date of Entry)	Amount of New Money (Annually) When Fully Implemented
University of North Carolina	The Carolina Covenant	UNC covers the entire cost of attendance for students with family incomes within 200 percent of the poverty line through grants and work-study, not loans. These students also receive laptops to fulfill UNC's laptop requirement and are offered enrichment opportunities such as faculty mentoring and etiquette dinners.	October 2003	Fall 2004	\$13.2 million
University of Virginia	AccessUVa	UVa covers the entire cost of attendance for students with family incomes within 200 percent of the poverty line through grants, not loans or work-study. UVa caps the amount of need-based debt any student is forced to take out at 25 percent of the four-year in-state cost of attendance, providing grants to cover the rest of the student's costs. It also provides financial aid counseling to admitted students and their families.	February 2004	Fall 2004	Board of Visitors will contribute over \$20 million (this number includes some financial aid resources available before program initiation)

University of Maryland	Maryland Pathways	UMd covers the entire cost of attendance for students who have no ability to pay for college as judged by the FASFA (typically those with family incomes below the poverty line) through grants and work-study. UMd caps the amount of need-based debt Maryland resident seniors can accumulate at \$15,900 in four years, providing grants to cover the rest of the student's costs. It also provides all students who lose federal Pell aid because they take jobs with grants equal to the Pell Grant they would have received had they not worked.	April 2004	Fall 2004 ^a (debt cap implemented in Fall 2005)	\$1.6 million ^b
University of Michigan, Ann Arbor	M-Pact	UMich has replaced some loans in the financial aid packages of low and middle-income in-state students with grants. Students who qualify for a full Pell Grant receive \$1,500 more in grant assistance in lieu of loans, those who are slightly more affluent receive \$1,000 more, and those who barely miss Pell eligibility (typically those with family incomes between \$50,000 and \$70,000) receive \$500 more in grant aid.	February 2005	Fall 2005	\$3 million

(Table continues on p. 144)

Table 6.7 Programs Designed to Increase Enrollment of Low-Income Students at State Flagship Universities (Continued)

State-School	Program Name	Program Description	Date of Announcement	First Class Affected (Date of Entry)	Amount of New Money (Annually) When Fully Implemented
Ohio State	Land-Grant Opportunity Scholarship	Ohio State covers the entire cost of attendance for one student from each of Ohio's eighty-eight counties through a scholarship and work-study. Within a county, the strongest student whose family income is less than \$40,000 a year will be awarded this scholarship. If there are no admitted students from a particular county whose family income is below \$40,000, the scholarship will be awarded to a student in another county who qualifies.	January 2005	Fall 2005	\$1.5 million
University of Illinois at Urbana-Champaign	Illinois Promise	UIUC covers the entire cost of attendance of in-state students whose family income is at or below the poverty line and whose expected family contribution is zero as determined by the FASFA through grants and work-study.	December 2004	Fall 2005	\$280,000 (first year, not including federal and state costs)

Source: Authors' compilations based on information available in fall 2005.

^a Maryland's online magazine *Outlook Online* says the program's first eligible class entered in Fall 2004 as does *Black Issues in Higher Education*, whereas the financial aid website says the program started in the fall of 2005.

^b As some of these funds are diverted from other financial aid efforts, this number does not measure the total increase in financial aid funds available.

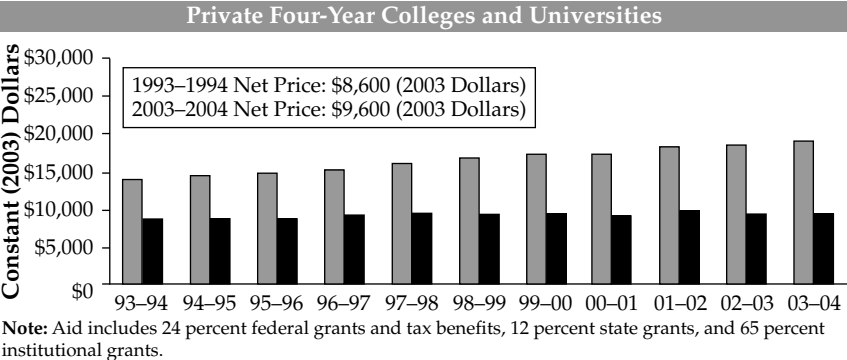
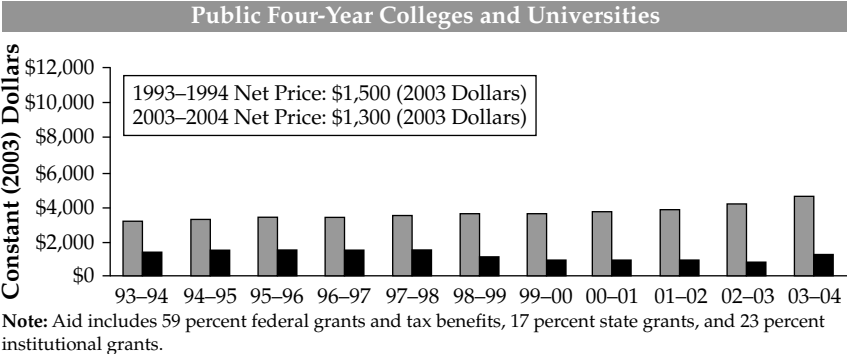
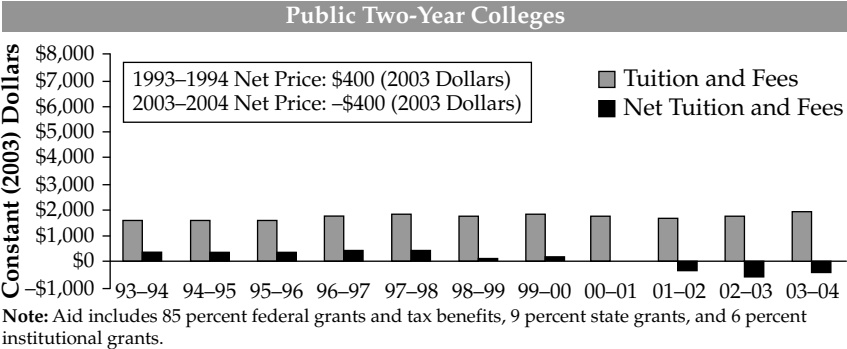
Table 6.8 **Changes in Admissions Patterns at the University of Virginia
from 2004 to 2005**

	Applications	Admit Rate	Matriculation Rate
<200 percent poverty	11%	6%	28%
All other	6%	-3%	2%
Difference in change	5%	9%	26%

Source: Authors' compilations.

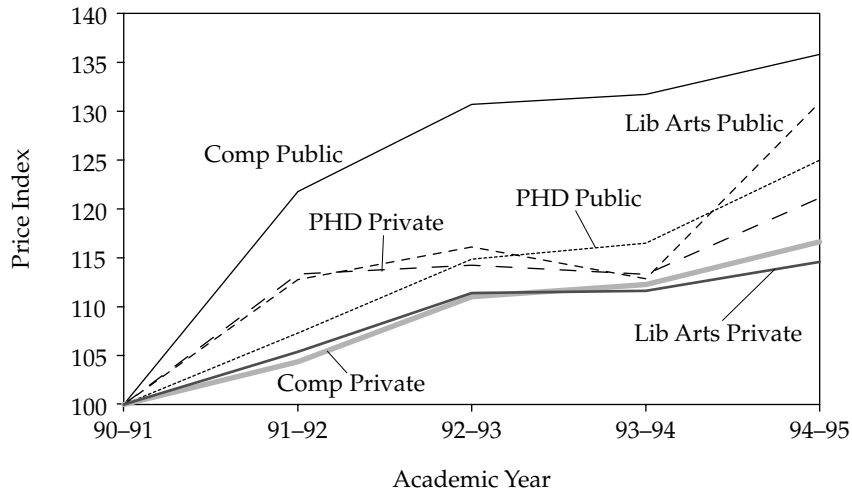
Figure 7.1 Net Price: Published Tuition and Fees and Tuition and Fees After Average Grant and Education Tax Benefits per Student by Institution Type, in Constant (2003) Dollars, 1993–1994

The net prices reported in these graphs are estimated averages for the sector. Students pay different prices depending on their circumstances. Not apparent in the average prices illustrated below is the reality that the changing distribution of state and institutional grant aid, combined with the introduction of education tax credits in 1998 and the tuition and fee deduction in 2002, has reduced net price for middle- and upper-income students relative to net price for lower-income students.



Source: The College Board (2004).

Figure 7.2 Quality-Adjusted Net Price Indices by Market Segment



Source: Schwartz and Scafidi (2004, figure 7).

Table 7.1 Consumer Price Indices

	<u>CPI¹</u> All Items (Percent Increases)	<u>CPI¹</u> College Tuition and Fees (Percent Increases)
1999	166.6	318.7
2000	172.2 (3.4%)	331.9 (4.1%)
2001	177.1 (2.8%)	348.8 (5.1%)
2002	179.9 (1.6%)	372.6 (6.8%)
2003	184.0 (2.3%)	403.9 (8.4%)
2004	188.9 (2.7%)	442.1 (9.5%)

¹ Consumer Price Index for all urban consumers: U.S. city annual average (1982–84=100)
Sources: Author's compilations; U.S. Bureau of Labor Statistics (2001, 2002, 2003, 2004, 2005).
Source: <http://www.bls.gov/cpi/cpid01av.pdf>, <http://www.bls.gov/cpi/cpid02av.pdf>,
<http://www.bls.gov/cpi/cpid03av.pdf>, <http://www.bls.gov/cpi/cpid04av.pdf>,
<http://www.bls.gov/cpi/cpid0506.pdf>

Table 7.2 Average Published Tuition and Fee Charges

	Tuition and Fees (Current Dollars)								Tuition and Fees (Constant 2004 Dollars)					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Academic Year	Private Four-Year	Percent Change	Public Four-Year	Percent Change	Public-Private	Public Two-Year	Percent Change	Two Year/Four Year	Private Four-Year	Percent Change	Public Four-Year	Percent Change	Public Two-Year	Percent Change
1980–1981	\$3,617		\$804		0.22	\$391		0.49	\$7,910		\$1,758		\$855	
1985–1986	\$6,121	69.2%	\$1,318	63.9%	0.22	\$641	63.9%	0.49	\$10,657	34.7%	\$2,295	30.5%	\$1,116	30.5%
1990–1991	\$9,340	52.6%	\$1,908	44.8%	0.20	\$906	41.3%	0.47	\$13,213	24.0%	\$2,699	17.6%	\$1,282	14.9%
1995–1996	\$12,216	30.8%	\$2,811	47.3%	0.23	\$1,330	46.8%	0.47	\$14,979	13.4%	\$3,447	27.7%	\$1,631	27.2%
2000–2001	\$16,072	31.6%	\$3,508	24.8%	0.22	\$1,642	23.5%	0.47	\$17,390	16.1%	\$3,796	10.1%	\$1,777	9.0%
2001–2002	\$17,377	8.1%	\$3,766	7.4%	0.22	\$1,608	-2.1%	0.43	\$18,475	6.2%	\$4,004	5.5%	\$1,710	-3.8%
2002–2003	\$18,060	3.9%	\$4,098	8.8%	0.23	\$1,674	4.1%	0.41	\$18,788	1.7%	\$4,263	6.5%	\$1,710	0.0%
2003–2004	\$18,950	4.9%	\$4,645	13.3%	0.25	\$1,909	14.0%	0.41	\$19,292	2.7%	\$4,729	10.9%	\$1,943	13.6%
2004–2005	\$20,082	6.0%	\$5,132	10.5%	0.26	\$2,076	8.7%	0.40	\$20,082	4.1%	\$5,132	8.5%	\$2,076	6.8%
1990/2001– 2004/2005		115.0%		169.0%				129.1%		52.0%		90.1%		61.9%

Source: The College Board (2004, table 4a); author's calculations

Note: Enrollment weighted

Table 7.3 Average Published Tuition, Fee, Room and Board (TFRB) Charges at Four-Year Institutions, Enrollment Weighted

Academic Year	Total Charges (Current Dollars)					Total Charges (Constant 2004 Dollars)			
	Private Four-Year	Percent Change	Public Four-Year	Percent Change	Public/Private	Private Four-Year	Percent Change	Public Four-Year	Percent Change
1980–1981	\$5,594		\$2,551		0.46	\$12,234		\$5,579	
1985–1986	\$8,902	59	\$3,791	49	0.43	\$15,498	27	\$6,600	18
1990–1991	\$13,476	51	\$5,074	34	0.38	\$19,064	23	\$7,178	9
1995–1996	\$17,382	29	\$6,743	33	0.39	\$21,314	12	\$8,628	20
2000–2001	\$22,240	28	\$8,439	25	0.38	\$24,064	13	\$9,131	6
2001–2002	\$23,856	7	\$9,032	7	0.38	\$25,363	5	\$9,603	5
2002–2003	\$24,867	4	\$9,672	7	0.39	\$25,870	2	\$10,062	5
2003–2004	\$26,057	5	\$10,530	9	0.40	\$26,527	3	\$10,720	7
2004–2005	\$27,516	6	\$11,354	8	0.41	\$27,516	4	\$11,354	6
		24		35			14		24

Source: Author's calculations; The College Board (2004).

Table 7.4 Average Annual Published Costs for Undergraduates, by Institution Type, in Current Dollars, Unweighted

Sector	Tuition and Fees			
	1994–1995	1995–1996	2000–2001	2004–2005
Two-year Public	\$1,267	\$1,399	\$1,703	\$2,247
Percent change		10.4%	21.7%	31.9%
Four-year Public	\$2,585	\$2,741	\$3,380	\$4,843
Percent change		6.0%	23.3%	43.3%
Two-year/Four-year	0.49	0.51	0.50	0.46
Four-year Private	\$9,993	\$10,528	\$13,772	\$17,270
Percent change		5.4%	30.8%	25.4%
Public/Private	0.26	0.26	0.25	0.28
	Room and Board			
Two-year Public	—	—	—	—
Four-year Public	\$3,708	\$3,847	\$4,669	\$5,816
Percent change		3.7%	21.4%	24.6%
Four-year Private	\$4,385	\$4,536	\$5,445	\$6,606
Percent change		3.4%	20.0%	21.3%
Public/Private	0.85	0.85	0.86	0.88

Source: The College Board (2004, table 7A); author's calculations.

Note: All data are unweighted averages, intended to reflect the average prices set by institutions.

Table 7.5 Means by Year

Variable	1991	1992	1993	1994	1995
Tuition + fees	5,480	5,971	6,406	6,810	7,220
Aid per student	1,600	1,791	1,998	2,399	2,619
Tuition + fees— aid per student	3,880	4,179	4,407	4,412	4,601
Pupil-teacher ratio	20.64	20.71	20.57	20.27	20.37
Faculty with PhD	0.81	0.75	0.76	0.77	0.79
Part-time faculty	0.27	0.26	0.26	0.27	0.27
Full-time students	8,507	8,498	8,311	8,147	8,154
Part-time students	1,828	1,834	1,805	1,827	1,743
PhD granting institution	0.47	0.46	0.48	0.48	0.48
NCAA member	0.87	0.88	0.90	0.90	0.91
Fraternities and/ or sororities	0.84	0.84	0.84	0.84	0.85
Verbal SAT score 75th percentile*	611	609	609	612	611
Reports SAT score	0.67	0.69	0.70	0.70	0.74
Requires SATs for admission	0.94	0.95	0.94	0.95	0.94
Average age of entering freshmen	18.63	18.58	18.59	18.53	18.58
Minority students	0.15	0.15	0.16	0.17	0.18
Living in dorms	0.42	0.42	0.42	0.42	0.42
N	534	534	534	534	534

Source: Schwartz and Scafidi (2004), table 3.

All variables weighted by FTE in the 1990–1991 school year.

*Colleges who did not report an SAT score received a value of 0, and are not included in the mean and standard deviation reported.

Table 7.6 Hedonic Equations*

	Full Sample		Public		Private	
	Estimate	SE	Estimate	SE	Estimate	SE
p92	0.106	0.014	0.134	0.021	0.062	0.013
p93	0.168	0.013	0.200	0.020	0.112	0.014
p94	0.177	0.014	0.209	0.024	0.116	0.013
p95	0.226	0.018	0.258	0.032	0.155	0.014
Pupil-teacher ratio	-0.0002	0.003	0.002	0.007	-0.002	0.001
Faculty with PhD	0.007	0.011	0.012	0.013	-0.045	0.045
Part-time faculty	-0.080	0.092	-0.087	0.141	0.005	0.095
LN full-time students	0.236	0.075	0.134	0.122	0.373	0.060
LN part-time students	0.012	0.007	0.015	0.009	0.010	0.005
PhD granting institution	0.017	0.033	-0.001	0.049	0.039	0.027
NCAA member	-0.001	0.052	0.011	0.083	-0.017	0.021
Fraternalities and/or sororities	-0.016	0.046	0.139	0.215	-0.048	0.020
Verbal SAT score 75th percentile	0.0004	0.000	0.0019	0.0010	-0.00014	0.0002
Reports SAT score	-0.235	0.227	-1.104	0.580	0.088	0.101
Requires SATs for admission	-0.074	0.027	-0.104	0.037	-0.024	0.037
Average age of entering freshmen	-0.026	0.012	-0.033	0.018	0.0000	0.004
Minority students	1.027	0.526	1.731	0.833	-0.382	0.222
Live in dorms	0.105	0.049	0.054	0.066	0.110	0.053
Constant	6.210	0.688	6.312	1.176	6.065	0.455
N	2,670		740		1,930	
R**2	0.976		0.931		0.958	

Source: Schwartz and Scafidi (2004), table 6.

*Dependent variable equals LN(Net_price). Weighted by the number of FTE undergraduates in 1990–1991. Each regression is estimated via fixed effects.

Table 7.7 Comparison of CPI and Unadjusted Real Price Indices, Public Colleges

Year	(1) CPI-U	(2) CPI: College Tuition and Fees	(3) Four-Year Public Tuition+Fees*	(4) Two-Year Public Tuition+Fees*	(5) Four-Year Public Net Price*	(6) Two-Year Public Net Price*
1990	100.0	100.0	100.0	100.0	100.0	100.0
1991	103.0	105.7	106.8	107.6	101.7	93.6
1992	106.1	117.1	120.3	114.9	118.2	91.1
1993	108.8	128.0	130.9	122.3	128.6	98.7
1994	111.9	137.0	140.2	123.9	131.4	96.0

Source: Scafidi and Schwartz (2003).

*These real price indices were created using estimates from weighted fixed effects regressions of the sticker or net price of college on year dummy variables. All regression coefficients are significant at the 1 percent level.

Table 7.8 Comparison of CPI and Unadjusted Real Price Indices, Private Colleges

Year	(1) CPI-U	(2) CPI: College Tuition and Fees	(3) Four-Year Public Tuition+Fees*	(4) Two-Year Public Tuition+Fees*	(5) Four-Year Public Net Price*	(6) Two-Year Public Net Price*
1990	100.0	100.0	100.0	100.0	100.0	100.0
1991	103.0	105.7	109.1	102.2	108.0	94.8
1992	106.1	117.1	117.8	106.0	114.3	91.8
1993	108.8	128.0	125.7	109.8	119.4	91.5
1994	111.9	137.0	133.3	114.0	119.8	92.1

Source: Scafidi and Schwartz (2003).

*These real price indices were created using estimates from weighted fixed effects regressions of the sticker or net price of college on year dummy variables. All regression coefficients are significant at the 1 percent level.

Table 7.9 Colleges with Negative Net Prices

Year	# Schools Positive	# Schools Negative	% Schools Negative
1990	720	159	18
1991	697	182	21
1992	682	197	22
1993	692	187	21
1994	679	200	23

	# Students Attending Positive Net Price Colleges	# Students Attending Negative Net Price Colleges	% Students Attending Negative Net Price Colleges
1990	2,124,276	391,661	16
1991	2,084,086	473,594	19
1992	1,998,879	523,320	21
1993	2,031,167	465,397	19
1994	1,917,423	543,122	22

Source: Scafidi and Schwartz (2003).

Table 7.10 Quality-Adjusted Net Price Indices*

Year	(1) CPI-U	(2) CPI: College Tuition and Fees	(3) All Colleges	(4) All Public Colleges	(5) All Private Colleges	(6) Public PHD	(7) Private PHD
1991	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1992	103.0	110.7	111.2	114.3	106.4	107.3	113.3
1993	106.1	121.1	118.3	122.2	111.8	114.9	114.3
1994	108.8	129.6	119.3	123.3	112.3	116.5	113.3
1995	111.9	137.3	125.4	129.5	116.8	125.0	121.1
		(8) Public Comprehensive	(9) Private Comprehensive	(10) Public Liberal Arts	(11) Private Liberal Arts		
1991		100.0	100.0	100.0	100.0		
1992		121.8	104.4	112.8	105.4		
1993		130.7	111.0	116.1	111.4		
1994		131.7	112.3	112.8	111.6		
1995		135.8	116.6	130.9	114.6		

Source: Schwartz and Scafidi (2004).

*Price indices in columns 3 through 11 are created using regression coefficients reported in tables 7.7 and 7.8. Price indices for four-year colleges only.