commonfund

2013

HEPI

HIGHER EDUCATION PRICE INDEX

HIGHER EDUCATION PRICE INDEX INTRODUCTION

About HEPI

The Higher Education Price Index (HEPI) is an inflation index designed specifically for use by institutions of higher education. Compiled from data reported by government agencies and industry sources, HEPI measures the average relative level in the price of a fixed market basket of goods and services purchased by colleges and universities each year through current fund educational and general expenditures, excluding research. A more accurate indicator of cost changes for colleges and universities than the Consumer Price Index (CPI), HEPI is used primarily to project future budget increases required to preserve purchasing power. With compilations dating back to 1961, HEPI offers more than 50 continuous years of higher education inflation data. It is an essential tool enabling schools to determine increases in funding necessary to maintain both real purchasing power and investment.

In 2005, Commonfund Institute assumed responsibility for the index and the proprietary model used to calculate HEPI's values from Research Associates of Washington, D.C. In 2007, in keeping with its commitment to improving and expanding the index, Commonfund Institute inaugurated two additional HEPI services:

- HEPI calculated by type of institution for six different categories of public and private colleges and universities, and
- the monthly release, beginning in January of each year, of a forecast of HEPI for the coming fiscal year end.

In 2009, two further improvements were introduced, aligning the estimates and the final HEPI calculation with the July-June academic fiscal year and making available HEPI calculated by region.

HEPI forecasts are provided monthly from January through June of each year. The HEPI report is published using the July HEPI figure, which may be subject to a further small adjustment when the last of the underlying data items are finalized in November.

All HEPI services are provided free of charge via Commonfund Institute's website at www.commonfund.org.

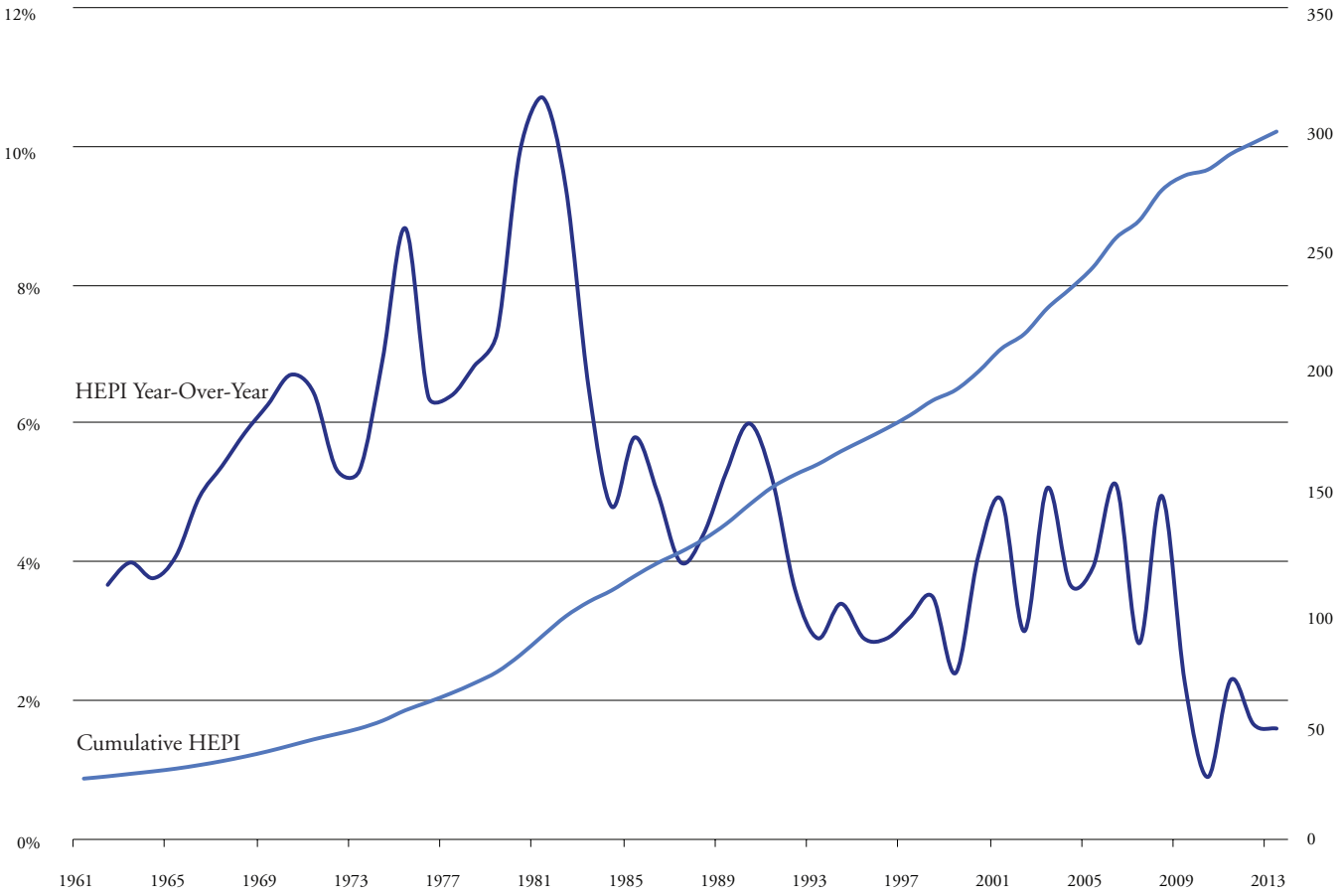
About Commonfund Institute

Commonfund Institute was founded to house the education and research activities of Commonfund and to provide the community of long-term investors with investment information and professional development programs. Commonfund Institute is dedicated to the advancement of investment knowledge and the promotion of best practices in financial management. Commonfund Institute provides a wide variety of resources, including conferences, seminars and roundtables on topics such as endowment and treasury management; proprietary and third-party research and publications including the annual NACUBO-Commonfund Study of Endowments®, the Council on Foundations-Commonfund Study of Investments for Private Foundations™ and the Commonfund Benchmarks Studies®; and events such as the annual Commonfund Endowment Institute and the Commonfund Prize for the best contribution to endowment investment research. Its broad range of programs and services is designed to serve financial practitioners, fiduciaries and scholars.

The HEPI Tables

The chart below shows HEPI from FY1961 to FY2013. Table A on page 3 summarizes HEPI and CPI for the same period. Table B on page 4 summarizes the regression formula used since FY2002 to calculate HEPI. Table C on page 11 shows HEPI for public and private institutions, as a whole and by type of institution. Table D on page 16 shows HEPI for all educational institutions by region. HEPI data beginning with FY2002 have been restated to reflect the methodological improvements adopted in 2009. Tables E and F on pages 21 and 22 trace the purchasing power of current salaries of full-time professors compared with previous years, using data from selected public and private institutions.

HIGHER EDUCATION PRICE INDEX 1961 - 2013



This chart traces the Higher Education Price Index (HEPI) from 1961 to 2013. Cumulative HEPI is represented by the steadily increasing blue line, indexed to 100 for 1983, and should be read using the right-hand scale. The jagged line traces percentage year-over-year changes in HEPI and should be read using the left-hand scale. In this chart and in the supporting data in Table A on page 3, the HEPI is presented in two ways-as an index level and as a year-over-year percent change. HEPI data beginning with FY2002 have been restated to reflect the methodological improvements adopted in 2009.

TABLE A

HISTORICAL SUMMARY OF HIGHER EDUCATION PRICE INDEX AND CONSUMER PRICE INDEX FY1961 TO FY2013

	College and university operations		Consumer prices			College and university operations		Consumer prices	
Fiscal year	HEPI Index Value 1983 = 100	Yearly % Change	CPI Index Value 1983 = 100	Yearly % Change	Fiscal year	HEPI Index Value 1983 = 100	Yearly % Change	CPI Index Value 1983 = 100	Yearly % Change
1961	25.6	–	30.3	–	1991	148.2	5.2%	136.4	5.4%
1962	26.5	3.7%	30.6	1.0%	1992	153.5	3.6%	140.8	3.2%
1963	27.6	4.0%	31.0	1.1%	1993	157.9	2.9%	145.2	3.1%
1964	28.6	3.8%	31.4	1.4%	1994	163.3	3.4%	148.8	2.5%
1965	29.8	4.1%	31.8	1.3%	1995	168.1	2.9%	153.2	3.0%
1966	31.3	4.9%	32.6	2.3%	1996	173.0	2.9%	157.4	2.7%
1967	32.9	5.4%	33.5	3.0%	1997	178.4	3.2%	161.9	2.9%
1968	34.9	5.9%	34.6	3.3%	1998	184.7	3.5%	164.8	1.8%
1969	37.1	6.3%	36.3	4.8%	1999	189.1	2.4%	167.6	1.7%
1970	39.5	6.7%	38.5	5.9%	2000	196.9	4.1%	172.5	2.9%
1971	42.1	6.4%	40.5	5.2%	2001	208.7	6.0%	178.4	3.4%
1972	44.3	5.3%	41.9	3.6%	2002	212.7	1.9%	181.6	1.8%
1973	46.7	5.3%	43.6	3.9%	2003	223.5	5.1%	185.5	2.2%
1974	49.9	6.9%	47.5	8.9%	2004	231.7	3.7%	189.6	2.2%
1975	54.3	8.8%	52.8	11.2%	2005	240.8	3.9%	195.3	3.0%
1976	57.8	6.4%	56.5	7.1%	2006	253.1	5.1%	202.7	3.8%
1977	61.5	6.4%	59.8	5.8%	2007	260.3	2.8%	208.0	2.6%
1978	65.7	6.8%	63.8	6.8%	2008	273.2	5.0%	215.7	3.7%
1979	70.5	7.3%	69.8	9.3%	2009	279.3	2.3%	218.7	1.4%
1980	77.5	9.9%	79.1	13.3%	2010	281.8	0.9%	220.8	1.0%
1981	85.8	10.7%	88.2	11.6%	2011	288.4	2.3%	225.3	2.0%
1982	93.9	9.4%	95.8	8.7%	2012	293.2	1.7%	231.9	2.9%
1983	100.0	6.5%	100.0	4.3%	2013	297.8	1.6%	235.7	1.7%
1984	104.8	4.8%	103.7	3.7%					
1985	110.8	5.8%	107.7	3.9%					
1986	116.3	5.0%	110.8	2.9%					
1987	120.9	4.0%	113.3	2.2%					
1988	126.2	4.4%	118.0	4.1%					
1989	132.8	5.3%	123.5	4.7%					
1990	140.8	6.0%	129.4	4.8%					

Sources: HEPI, Research Associates of Washington and Commonfund Institute, July 1 – June 30 data
CPI, U.S. Department of Labor, data is calculated to July 1 – June 30 (annual published CPI is computed over the calendar 12-month period)

TABLE B

HIGHER EDUCATION PRICE INDEX 2002 – 2013

REGRESSION ANALYSIS OF COMPONENTS—FY1961 TO FY2001

	Fiscal	Regression HEPI	Faculty salaries	Administrative salaries	Clerical	Service Employees	Fringe Benefits	Miscellaneous services	Supplies and materials	Utilities
Index Value	2002	212.7	222.7	236.4	205.4	189.6	277.1	205.8	128.2	118.1
	2003	223.5	229.4	255.7	211.1	193.9	292.3	209.5	132.2	157.6
	2004	231.7	234.2	263.3	217.1	197.6	312.8	216.4	135.6	176.4
	2005	240.8	240.7	274.0	223.4	201.4	327.2	222.7	145.5	200.2
	2006	253.1	248.2	287.7	229.5	205.5	343.7	228.8	158.1	255.7
	2007	260.3	257.6	299.2	237.7	213.6	360.8	238.3	165.3	220.6
	2008	273.2	268.1	314.0	245.1	220.5	380.7	246.4	180.0	252.0
	2009	279.3	277.3	330.9	251.6	226.7	394.4	253.1	181.6	213.8
	2010	281.8	280.6	337.6	255.2	230.0	402.8	255.8	179.3	193.6
	2011	288.4	284.5	343.2	260.2	233.2	417.6	260.3	193.9	201.5
	2012	293.2	289.6	352.3	264.8	235.7	425.3	264.6	203.9	191.7
	2013	297.8	294.6	362.4	269.8	239.4	437.5	269.4	180.0	195.6
Standard Deviation	2002-2013	28.8	25.2	41.5	21.8	17.6	53.8	22.2	25.2	37.6
Yearly % Change	2002	1.9%	3.8%	3.1%	3.9%	3.8%	5.9%	3.0%	-2.7%	-30.0%
	2003	5.1%	3.0%	8.2%	2.8%	2.3%	5.5%	1.8%	3.1%	33.5%
	2004	3.7%	2.1%	3.0%	2.8%	1.9%	7.0%	3.3%	2.6%	11.9%
	2005	3.9%	2.8%	4.1%	2.9%	1.9%	4.6%	2.9%	7.3%	13.5%
	2006	5.1%	3.1%	5.0%	2.7%	2.0%	5.0%	2.7%	8.7%	27.7%
	2007	2.8%	3.8%	4.0%	3.6%	4.0%	5.0%	4.2%	4.5%	-13.7%
	2008	5.0%	4.1%	5.0%	3.1%	3.2%	5.5%	3.4%	8.9%	14.2%
	2009	2.3%	3.4%	5.4%	2.7%	2.8%	3.6%	2.7%	0.9%	-15.1%
	2010	0.9%	1.2%	2.0%	1.4%	1.4%	2.1%	1.1%	-1.3%	-9.5%
	2011	2.3%	1.4%	1.7%	2.0%	1.4%	3.7%	1.8%	8.2%	4.1%
	2012	1.7%	1.8%	2.7%	1.7%	1.1%	1.8%	1.7%	5.2%	-4.9%
	2013	1.6%	1.7%	2.9%	1.9%	1.6%	2.9%	1.8%	-11.7%	2.0%

Summary Output

Regression Statistics

Multiple R	0.999998904
R Square	0.999997809
Adjusted R Square	0.999997261
Standard Error	0.096391663
Observations	41

Coefficients

Intercept	-0.286286907
Faculty	0.353741718
Administrative	0.104289477
Clerical	0.184085850
Service	0.082314791
Fringe	0.131020859
Services	0.022899544
Supplies	0.055138426
Utilities	0.068247106

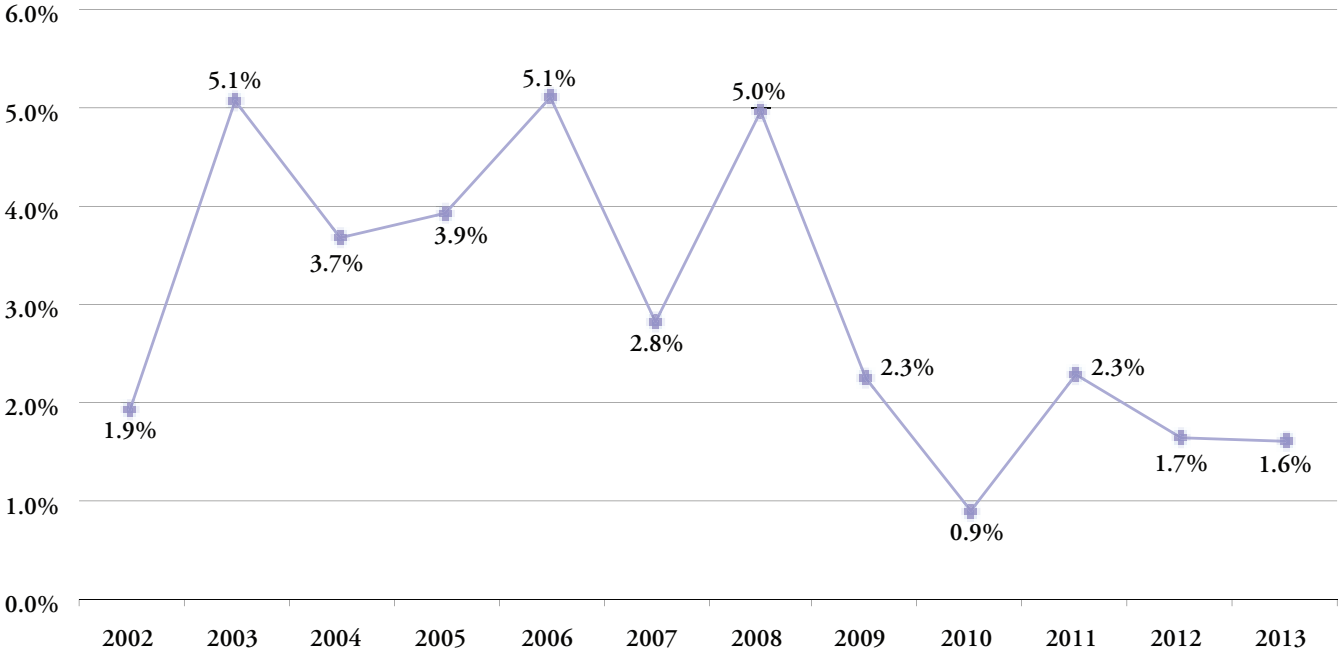
HIGHER EDUCATION PRICE INDEX ANALYSIS

HEPI FOR 2013

For fiscal 2013, which ended on June 30, the HEPI calculation reveals that inflation for colleges and universities was 1.6 percent, a decline of 5.9 percent from the 1.7 percent rate for FY2012. HEPI for FY2013 was 10 basis points (0.1 percent) below the rate for FY2012 and 70 basis points (0.7 percent) below the 2.3 percent rate for FY2011.

FIGURE 1

The Higher Education Price Index FY2002 - 2013



There are eight cost factors that contribute to the HEPI regression calculation: faculty salaries, administrative salaries, clerical salaries, service employee salaries, fringe benefits, miscellaneous services, supplies and materials, and utilities. The regression equation assigns a different weighting to each cost factor, and therefore a change in one component may influence the final HEPI calculation more than another. The components that are most heavily weighted are faculty and clerical salaries and fringe benefits.

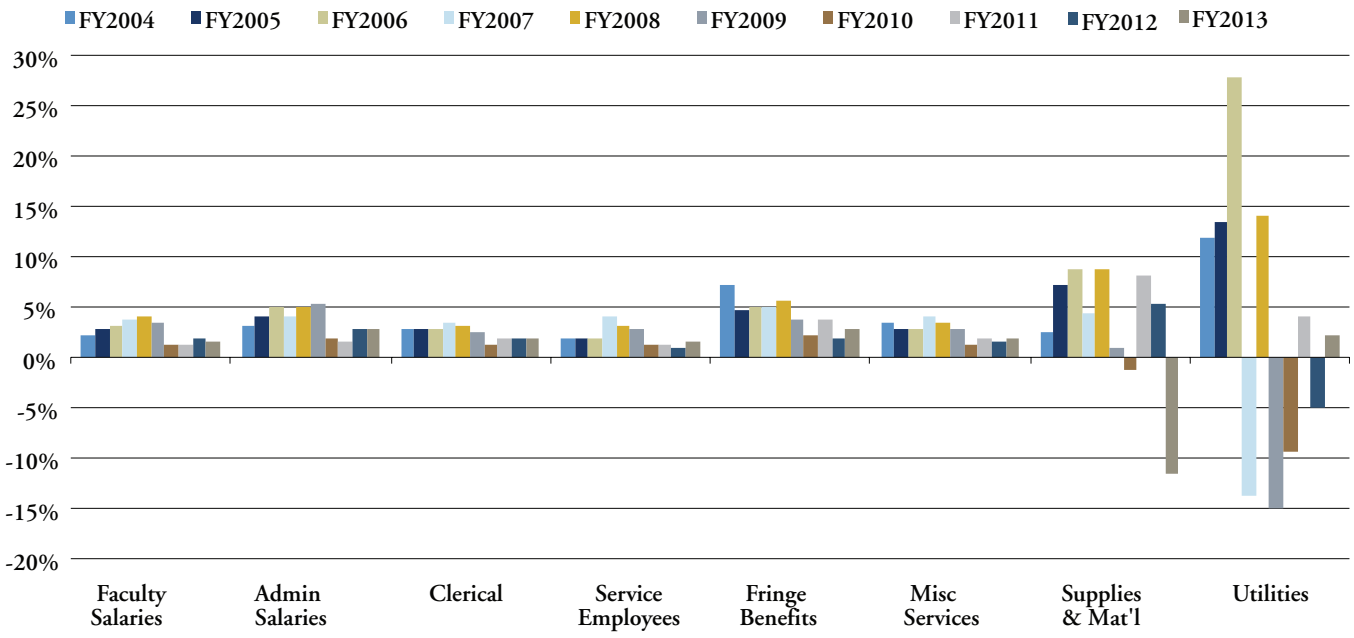
The cause of the slight deceleration in HEPI from FY2012 to FY2013 was a decline in the rate of inflation for faculty salaries, combined with an absolute decrease in prices for supplies and materials. These downward forces were somewhat offset by increases in the inflation rate for the other six cost factors. The weighting of supplies and materials in the regression equation that determines the final HEPI is only 5.5 percent, but the price movements of this cost factor have been very volatile in recent years. The inflation rate for supplies and materials, which was -1.3 percent – a defla-

tion – in FY2010, rebounded to 8.2 percent in FY2011 and then declined to 5.2 percent in FY2012 before dropping sharply again to a deflation rate of -11.7 percent in FY2013. Faculty salaries, on the other hand, carry a heavier weighting in the regression equation of 35.4 percent but have experienced much less volatility, with inflation rates of 1.2 percent in FY2010, 1.4 percent in FY2011, 1.8 percent in FY2012 and 1.7 percent in FY2013. The combined effect of the decreases in these two factors was to offset increases in the other six factors, resulting in the deceleration in the overall HEPI from 1.7 percent in FY2012 to 1.6 percent in FY2013.

Figure 2 shows a graphical representation of the changes in these cost factors from FY2004-13. For FY2013, administrative salaries had an inflation rate of 2.9 percent, up from last year's 2.7 percent; fringe benefits also had a rate of 2.9 percent, up from a 1.8 percent rise in FY2012. Utilities costs rose by 2.0 percent, up strongly from last year's deflationary -4.9 percent rate. Close behind were clerical salaries, which rose at a rate of 1.9 percent, up from 1.7 percent in FY2012; miscellaneous services, which rose at a rate of 1.8 percent compared with 1.7 percent the previous year; faculty salaries, which rose at a rate of 1.7 percent, down slightly from FY2012's 1.8 percent; and service employee salaries, which rose at a rate of 1.6 percent, up from 1.1 percent in FY2012. Supplies and materials costs reported a deflationary rate of -11.7 percent, down sharply from a 5.2 percent inflation rate in FY2012.

FIGURE 2

Annual Percentage Changes in the Eight HEPI Cost Factors, FY2004 - 2013



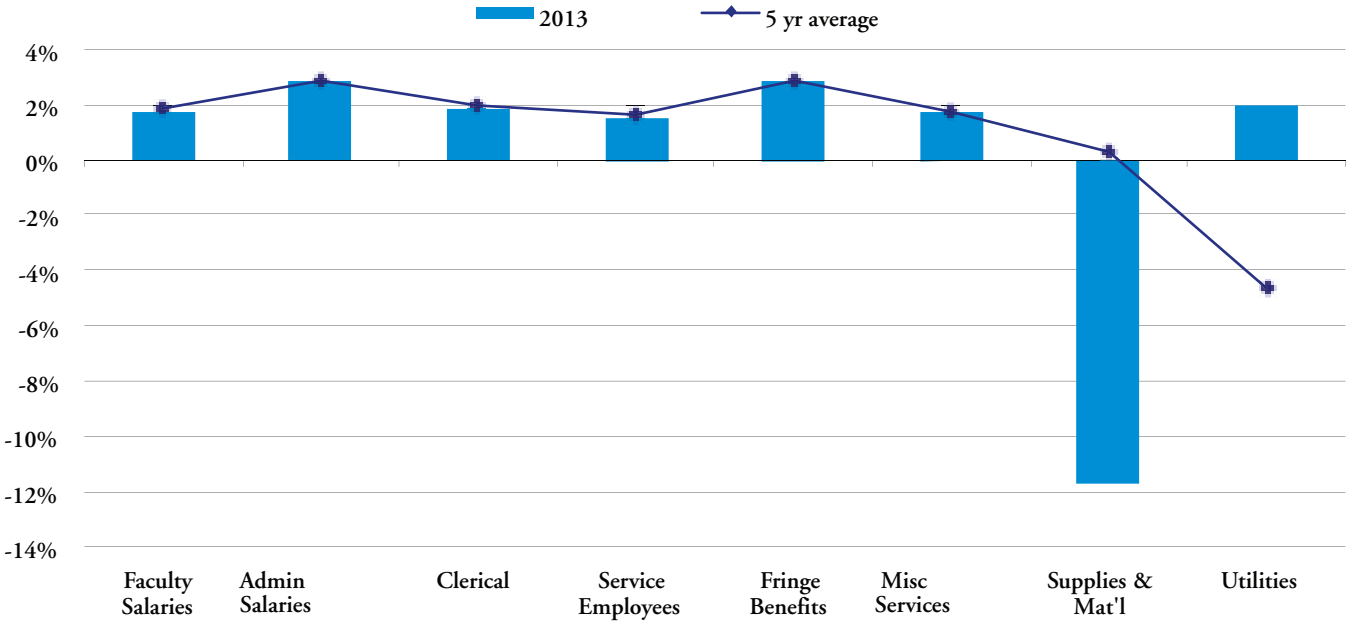
HEPI for FY2013 versus a Five-Year Average

Figure 3 shows the results of a longer-term analysis of HEPI's components that compares the reported rates for FY2013 against their historical five-year averages. On this basis, the greatest deviation from the five-year average was in the category of supplies and materials, which saw a deflation rate of -11.7 percent for FY2013, 1,200 basis points lower than the five-year average of 0.3 percent. The change in utility costs, on the other hand, was 670 basis points higher than the five-year average for this factor, at 2.0 percent versus -4.7 percent.

Five of the six other factors had FY2013 readings that ranged from 0 to 20 basis points below their five-year averages. The sole exception was fringe benefits, where the 2013 inflation rate of 2.9 percent was 10 basis points above the five-year average of 2.8 percent.

FIGURE 3

Annual Percentage Changes in the Eight HEPI Cost Factors vs. 5-year average



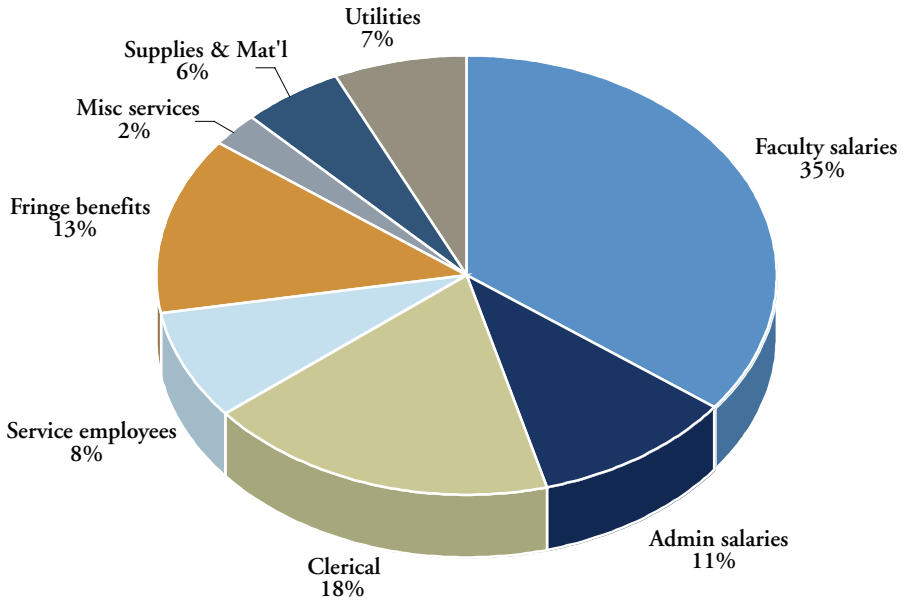
Over the five-year period, utilities rates have seen the most volatility, owing to strong positive and negative movements in this cost factor. Deflationary rates of -15.1 percent and -9.5 percent were reported in FY2009 and FY2010, respectively. FY2011 saw a relatively modest increase of 4.1 percent, but FY2012 reintroduced deflation in the form of a -4.9 percent rate while, as we have seen, in FY2013 inflation returned with a rate of 2.0 percent. In the aftermath of the financial crisis of 2008-09, inflation in factors other than utilities and materials & supplies has been markedly subdued, leading to less volatility in nearly all the factors. This year's deflation rate of -11.7 percent in supplies and materials costs, however, may indicate increased volatility in this cost factor as well -- a circumstance that will bear watching in future reports.

Sensitivity Analysis of the Eight HEPI Regression Components

Figure 4 shows how the HEPI regression equation assigns a different weighting to each cost factor. Owing to the large variance in these weightings (a difference of 33 percentage points between the high and low), an increase in one component may influence the final HEPI calculation more than an identical increase in another. Those components that are most heavily weighted are faculty and clerical salaries and fringe benefits. Utilities represent the third-lowest weighting, a fact that has served to mitigate somewhat the effect of the extreme volatility that has characterized this cost factor in recent years.

FIGURE 4

HEPI Cost Factor Weightings



The sensitivity analysis in Figure 5 shows that a 5 percent increase in faculty salaries, the largest component of HEPI, from an index value of 294.6 to 309.3, has the effect of increasing HEPI by 180 basis points, keeping all other components constant. However, a similar 5 percent increase in the index for miscellaneous services, the smallest component, has the effect of adding only 10 basis points to HEPI.

FIGURE 5

Sensitivity of HEPI to a 5 percent increase in Faculty Salaries or Miscellaneous Services

	Total	Faculty salaries	Admin salaries	Clerical	Service employees	Fringe benefits	Misc. services	Supplies & mat'l	Utilities
Current									
Index Value	297.8	294.6	362.4	269.8	239.4	437.5	269.4	180.0	195.6
Yearly % Change	1.6%	1.7%	2.9%	1.9%	1.6%	2.9%	1.8%	-11.7%	2.0%
Scenario: Faculty Salaries up 5%									
Index Value	303.0	309.3	362.4	269.8	239.4	437.5	269.4	180.0	195.6
Yearly % Change	3.4%	6.8%	2.9%	1.9%	1.6%	2.9%	1.8%	-11.7%	2.0%
△	**180 b.p.**	**510 b.p.**							
Scenario: Misc. Services up 5%									
Index Value	298.1	294.6	362.4	269.8	239.4	437.5	282.9	180.0	195.6
Yearly % Change	1.7%	1.7%	2.9%	1.9%	1.6%	2.9%	6.9%	-11.7%	2.0%
△	**10 b.p.**						**510 b.p.**		

HIGHER EDUCATION PRICE INDEX FOR DIFFERENT TYPES OF EDUCATIONAL INSTITUTIONS

Public vs. Private Institutions - FY2013

As noted earlier, beginning in FY2007 Commonfund expanded its HEPI service to include calculations of HEPI for eight categories of educational institution:

- Public institutions as a whole
- Public doctoral degree-granting institutions
- Public masters' degree-granting institutions
- Public two-year colleges
- Private institutions as a whole
- Private doctoral degree-granting institutions
- Private masters' degree-granting institutions
- Private baccalaureate institutions

These indices were calculated using the appropriate faculty salary and fringe benefit information for each type of institution, while holding the other six HEPI cost factors constant. Table C, on the next page, shows HEPI for FY2002-2013 for these institutions.

TABLE C

HIGHER EDUCATION PRICE INDEX 2002 – 2013

BY MAJOR CATEGORIES OF PUBLIC AND PRIVATE EDUCATIONAL INSTITUTIONS

		NATIONAL	PUBLIC INSTITUTIONS				PRIVATE INSTITUTIONS			
	Fiscal year	Total	Total	Doctoral	Master's	2 Year College	Total	Doctoral	Master's	Baccalaureate
Index Value	2002	212.7	211.5	225.8	215.2	212.8	219.4	241.2	222.6	224.2
	2003	223.5	222.3	238.0	227.1	225.3	230.1	253.4	234.3	236.3
	2004	231.7	230.0	246.4	233.9	231.4	240.0	265.2	244.5	245.2
	2005	240.8	239.0	257.1	243.0	239.9	249.5	277.0	251.7	254.5
	2006	253.1	251.1	270.9	254.0	250.5	262.5	291.4	268.2	266.8
	2007	260.3	258.4	279.9	262.2	259.2	269.5	301.2	272.8	273.9
	2008	273.2	271.2	295.2	275.0	273.9	282.5	315.4	285.6	287.9
	2009	279.3	276.8	302.1	280.6	275.5	290.5	325.7	295.8	295.7
	2010	281.8	279.3	305.2	281.6	278.3	292.0	327.7	296.0	296.2
	2011	288.4	285.7	311.9	289.6	286.1	298.5	336.7	301.5	301.8
	2012	293.2	290.2	318.0	292.0	290.9	304.7	347.4	305.7	306.5
	2013	297.8	293.2	325.5	294.2	286.3	312.1	354.6	312.6	313.1
Yearly % Change	2002	1.9%	2.0%	3.2%	1.9%	2.4%	1.6%	4.0%	1.5%	1.6%
	2003	5.1%	5.1%	5.4%	5.5%	5.9%	4.9%	5.0%	5.3%	5.4%
	2004	3.7%	3.5%	3.6%	3.0%	2.7%	4.3%	4.7%	4.4%	3.7%
	2005	3.9%	3.9%	4.3%	3.9%	3.7%	3.9%	4.4%	2.9%	3.8%
	2006	5.1%	5.1%	5.4%	4.5%	4.4%	5.2%	5.2%	6.5%	4.8%
	2007	2.8%	2.9%	3.3%	3.2%	3.5%	2.7%	3.4%	1.7%	2.7%
	2008	5.0%	5.0%	5.5%	4.9%	5.7%	4.8%	4.7%	4.7%	5.1%
	2009	2.3%	2.0%	2.3%	2.1%	0.6%	2.8%	3.3%	3.6%	2.7%
	2010	0.9%	0.9%	1.0%	0.4%	1.0%	0.5%	0.6%	0.1%	0.2%
	2011	2.3%	2.3%	2.2%	2.8%	2.8%	2.2%	2.7%	1.8%	1.9%
	2012	1.7%	1.6%	2.0%	0.8%	1.7%	2.1%	3.2%	1.4%	1.6%
	2013	1.6%	1.0%	2.4%	0.7%	-1.6%	2.4%	2.1%	2.3%	2.2%

In recent years, HEPI has generally increased more rapidly at private institutions than at their public counterparts. In FY2010 private institutions as a whole reported a HEPI rate that was 40 basis points lower than their public counterparts, while in FY2011 private institutions' HEPI was just 10 basis points lower than that reported for public institutions. In FY2012 the HEPI for private institutions was 2.1 percent, 50 basis points higher than the 1.6 percent calculated for public institutions and in FY2013 it was 2.4 percent, a substantial 140 basis points higher than the 1.0 percent for public institutions. Looking at the index components for the two types of institution, inflation in faculty salaries was 110 basis points higher at private institutions, at 2.4 percent versus 1.3 percent for public institutions, and inflation in fringe benefits was 520 basis points higher, at 5.7 percent versus 0.5 percent.

Examining changes in HEPI by institutional classification, public doctoral institutions had a HEPI of 2.4 percent, up from 2.0 percent in FY2012, while for private doctoral institutions the HEPI was 2.1 percent, down from 3.2 percent, for a difference of 30 basis points between public and private doctoral institutions. Faculty salaries rose at a 2.1 percent rate at public doctoral institutions, down from 2.3 percent last year, and at a 3.4 percent rate at private doctoral institutions, unchanged from FY2012. Fringe benefits rose 5.2 percent at public doctoral institutions, representing a near doubling of last year's 2.3 percent rate, but just 2.0 percent at private doctoral institutions, down from 5.4 percent the previous year.

For the second straight year, public master's degree-granting institutions continued to have lower inflation rates than their private counterparts, with the public institutions' HEPI at 0.7 percent, down from FY2012's rate of 0.8 percent, while the private institutions' rate was 2.3 percent, up considerably from last year's 1.4 percent. Public master's degree-granting institutions had an inflation rate for faculty salaries of 0.6 percent, down from 0.8 percent last year, while for private institutions the rate was 1.6 percent, down from FY2012's 1.8 percent. After posting a deflationary rate of -0.6 percent last year, fringe benefit costs at master's degree-granting public institutions rose at a rate of 0.4 percent, while at private institutions fringe benefit costs rose by a substantial 6.1 percent, up considerably from last year's 0.5 percent.

Turning to undergraduate institutions, the data for public two-year colleges and private baccalaureate institutions are not directly comparable for a number of reasons, notably the difference in the period of matriculation. Public two-year institutions saw costs decline by a deflationary -0.7 percent, down from 1.1 percent in FY2012, and private baccalaureate-granting institutions reported a rise of 2.2 percent, up from 1.6 percent last year.

Cost Factor Differences by Institution Type

As shown in Figures 6 and 7, faculty salaries – the most heavily weighted component of HEPI – saw an increase of 1.3 percent at public institutions overall while rising 2.4 percent at private institutions. Faculty salaries at public doctoral institutions saw a HEPI increase of 2.1 percent, while public master's institutions saw a 0.6 percent increase and two-year colleges saw costs decline by a deflationary -0.7 percent. Faculty salaries at private doctoral institutions rose at a rate of 3.4 percent; salaries at private master's institutions rose 1.6 percent, while baccalaureate institutions reported a 2.2 percent increase.

FIGURE 6

FY2013 Faculty Salaries - Public Institutions

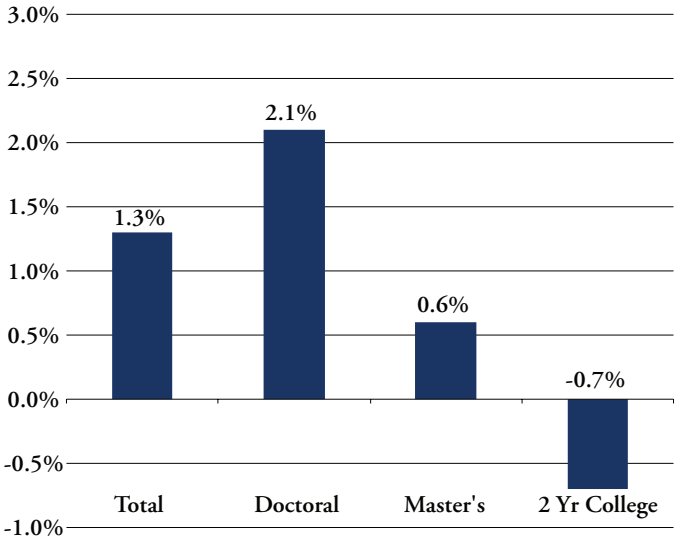
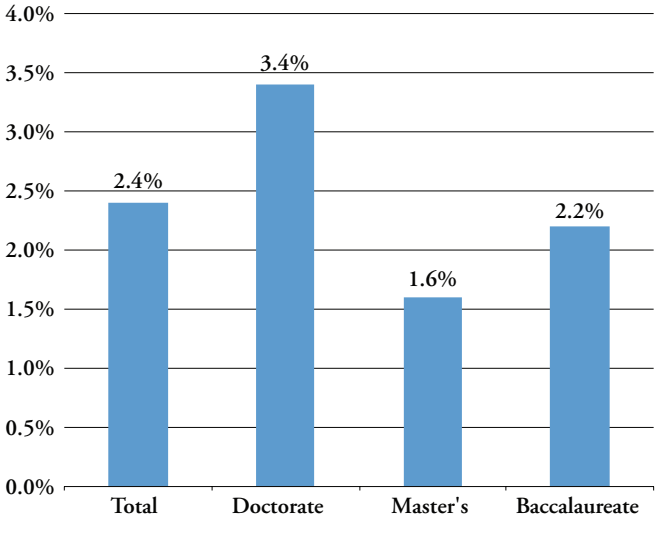


FIGURE 7

FY2013 Faculty Salaries - Private Institutions



Figures 8 and 9 show that at public institutions, fringe benefit costs rose 0.5 percent compared with 5.7 percent at private institutions. Within public institutions, doctoral institutions saw a rise in fringe benefit costs of 5.2 percent. The cost of fringe benefits for public master's degree-granting institutions rose at a rate of 0.4 percent for FY2013, while at two-year colleges fringe benefit costs fell at a rate of -9.2 percent.

Fringe benefits for private doctoral institutions rose by 2.0 percent. At private master's degree-granting institutions, fringe benefits rose by 6.1 percent, while at baccalaureate institutions the rise in fringe benefit costs was 4.4 percent.

FIGURE 8

FY2013 Fringe Benefits - Public Institutions

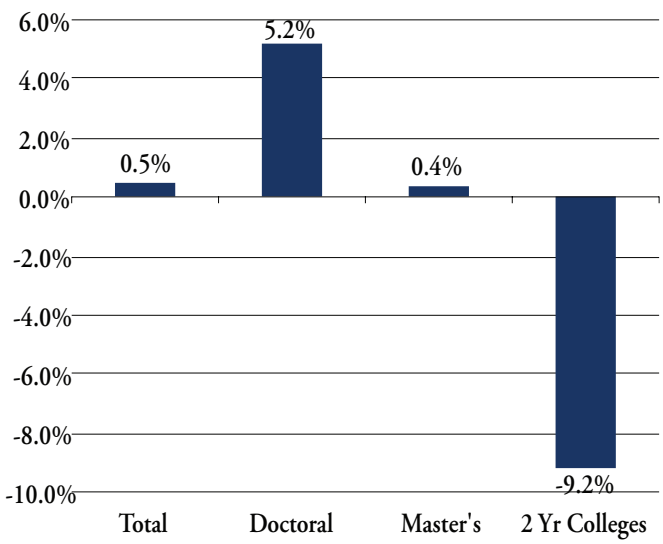
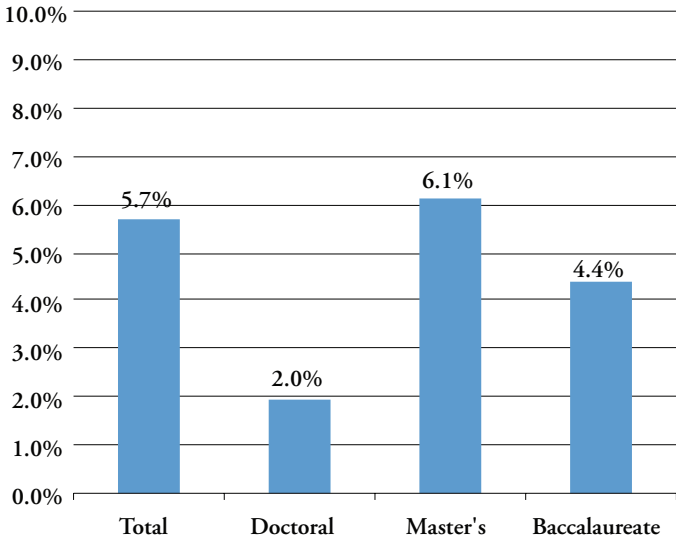


FIGURE 9

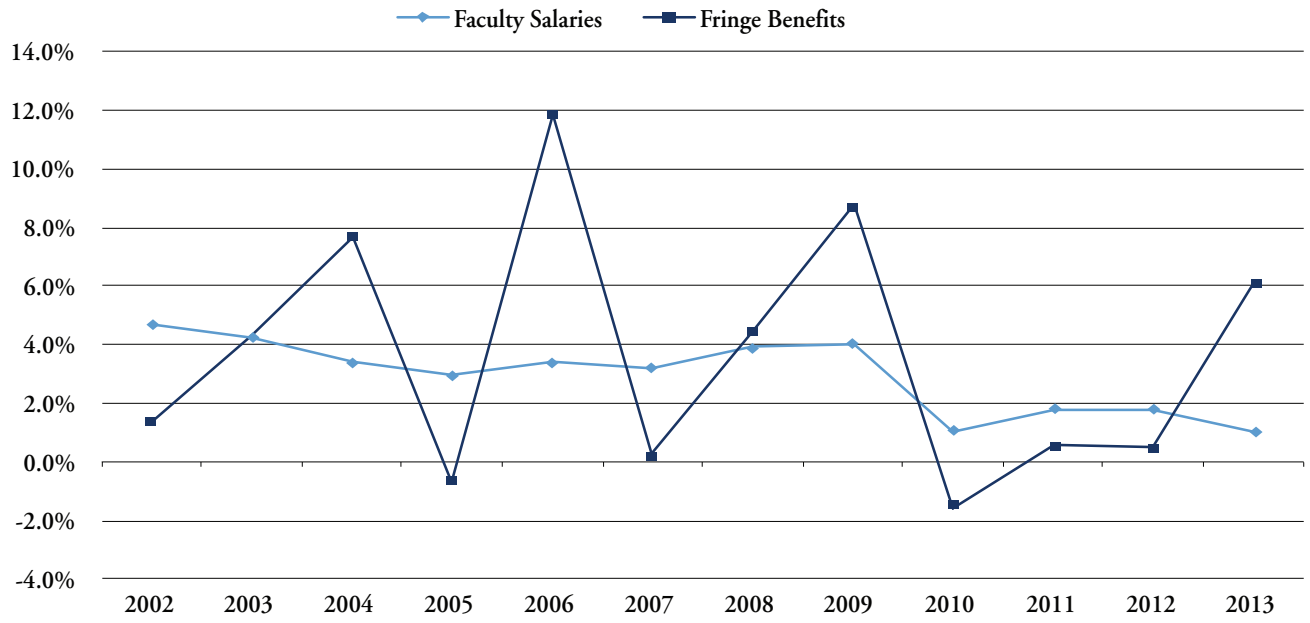
FY2013 Fringe Benefits - Private Institutions



As shown in Figure 10, over the past 12 years private master's degree-granting institutions have shown considerable volatility in the rate of change in fringe benefit costs, while salaries appear to have been more stable.

FIGURE 10

Private Master's Degree-granting Institutions



The other HEPI components – clerical salaries, administrative salaries, service employee salaries, miscellaneous services, supplies and materials, and utilities – were kept in line with the overall averages for both public and private institutions.

HIGHER EDUCATION PRICE INDICES FOR DIFFERENT REGIONS OF THE COUNTRY

Beginning in FY 2009, Commonfund further expanded its HEPI service to include calculations of HEPI for the nine standard census divisions of the United States:*

New England	Connecticut, Maine, Massachusetts, New Hampshire. Rhode Island, Vermont
Middle Atlantic	New Jersey, New York, Pennsylvania
East North Central	Illinois, Indiana, Michigan, Ohio, Wisconsin
West North Central	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
South Atlantic	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, Puerto Rico, South Carolina, Virginia, West Virginia
East South Central	Alabama, Kentucky, Mississippi, Tennessee
West South Central	Arkansas, Louisiana, Oklahoma, Texas
Mountain	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
Pacific	Alaska, California, Guam, Hawaii, Oregon, Washington

These indices were calculated using the appropriate faculty salary and fringe benefit information for each region, while holding the other six HEPI cost factors constant. Table D below shows HEPI for FY2002-2013 for the nine regions.

** A map showing the regions may be found at http:/www.census.gov/geo/www/us_regdiv.pdf*

The FY2013 HEPI, which was 1.6 percent on a national basis, ranged from a high of 4.5 percent in the Middle Atlantic region to a low of 0.2 percent in the South Atlantic region.

The three northeastern regions of the country -- New England, Middle Atlantic and East North Central -- exhibited increases in their inflation rates, while in the other six regions inflation rates fell. The Middle Atlantic region's HEPI increased by 300 basis points, the East North Central region's rate increased by 100 basis points and the New England region saw an increase of 70 basis points. In the other regions, HEPI decreased. In the West South Central region HEPI fell by 240 basis points, in the East South Central region by 160 basis points, in the Mountain region by 130 basis points and in the South Atlantic region HEPI fell by 100 basis points. The West North Central and Pacific regions saw decreases in HEPI of 50 and 10 basis points, respectively.

TABLE D

HIGHER EDUCATION PRICE INDEX 2002-2013
SUMMARIZED BY REGION

	Fiscal Year	HEPI National	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Index Value	2002	212.7	213.2	208.6	212.0	214.0	211.9	209.9	215.3	212.2	222.5
	2003	223.5	220.3	222.1	224.8	223.0	219.3	219.9	227.2	223.4	234.0
	2004	231.7	229.9	230.7	232.4	233.1	226.8	229.8	233.1	230.3	243.2
	2005	240.8	240.4	239.8	241.2	242.6	236.3	242.1	242.0	241.8	251.1
	2006	253.1	254.1	250.0	252.1	254.5	249.5	250.7	256.2	253.2	265.5
	2007	260.3	262.5	257.3	257.6	261.5	257.5	262.1	265.2	260.0	272.1
	2008	273.2	274.0	270.0	269.5	272.2	269.8	276.3	277.3	278.2	287.8
	2009	279.3	283.2	277.1	275.8	280.6	275.2	281.9	283.2	285.0	295.3
	2010	281.8	284.2	280.7	280.1	281.8	277.6	278.6	288.3	282.9	298.3
	2011	288.4	291.8	288.5	286.3	286.9	281.6	288.1	292.4	289.8	304.4
	2012	293.2	298.3	292.8	289.2	293.7	285.1	294.2	300.2	296.0	310.5
	2013	297.8	307.4	306.0	294.9	299.2	285.7	295.5	301.0	298.4	316.3
Yearly % Change	2002	1.9%	-0.6%	1.0%	2.7%	3.6%	2.6%	1.6%	4.3%	2.8%	7.7%
	2003	5.1%	3.3%	6.5%	6.0%	4.2%	3.5%	4.8%	5.5%	5.3%	5.2%
	2004	3.7%	4.4%	3.9%	3.4%	4.5%	3.4%	4.5%	2.6%	3.0%	3.9%
	2005	3.9%	4.6%	3.9%	3.8%	4.1%	4.2%	5.4%	3.8%	5.0%	3.2%
	2006	5.1%	5.7%	4.3%	4.5%	4.9%	5.6%	3.5%	5.9%	4.7%	5.8%
	2007	2.8%	3.3%	2.9%	2.2%	2.7%	3.2%	4.6%	3.5%	2.7%	2.5%
	2008	5.0%	4.4%	4.9%	4.6%	4.1%	4.8%	5.4%	4.6%	7.0%	5.8%
	2009	2.3%	3.4%	2.6%	2.4%	3.1%	2.0%	2.0%	2.1%	2.5%	2.6%
	2010	0.9%	0.4%	1.3%	1.6%	0.4%	0.9%	-1.2%	1.8%	-0.7%	1.0%
	2011	2.3%	2.6%	2.8%	2.2%	1.8%	1.5%	3.4%	1.4%	2.4%	2.1%
	2012	1.7%	2.3%	1.5%	1.0%	2.4%	1.2%	2.1%	2.7%	2.1%	2.0%
	2013	1.6%	3.0%	4.5%	2.0%	1.9%	0.2%	0.5%	0.3%	0.8%	1.9%

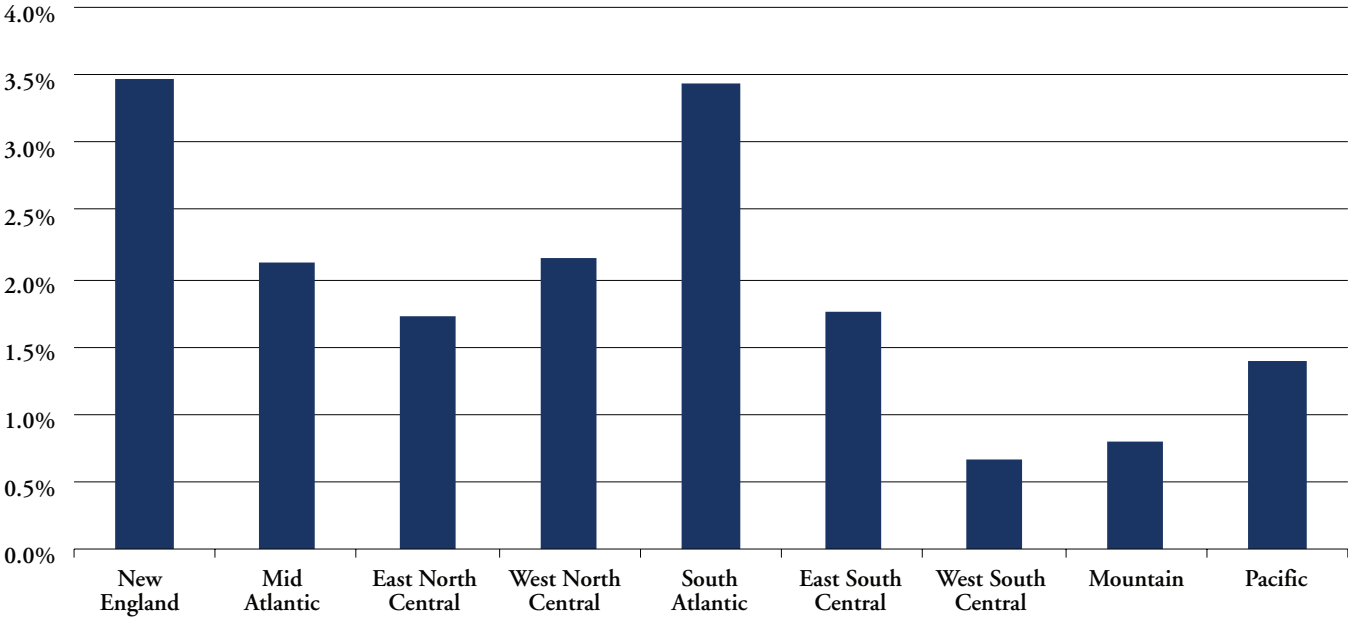
Cost Factor Differences by Region

As shown in Figure 11, faculty salaries rose most strongly in the New England region, by 3.5 percent, and in the South Atlantic region, by 3.4 percent. In the West North Central and Middle Atlantic regions faculty salaries rose by 2.2 percent and 2.1 percent, respectively. In the East North Central and East South Central regions they rose by 1.7 percent, while in the Pacific region they rose by 1.4 percent. In the Mountain region, faculty salaries rose by 0.8 percent and in the West South Central region they rose by 0.7 percent.

Just three of the nine regions showed increases in the inflation rate for faculty salaries from year to year. The biggest increase occurred in the South Atlantic region, where the inflation rate increased by 270 basis points; this was followed by the New England region, where it increased by 250 basis points, and the West North Central region, where it increased by 10 basis points. Decreases in the rate were observed in the Mountain region, where it fell by 220 basis points; the West South Central region, where the fall was 200 basis points; and the East South Central region, where the rate fell by 160 basis points. In the Pacific and East North Central regions the decline was 80 basis points and 50 basis points, respectively, and in the Middle Atlantic region the decline was 30 basis points from year to year.

FIGURE 11

FY2013 Faculty Salaries by Region

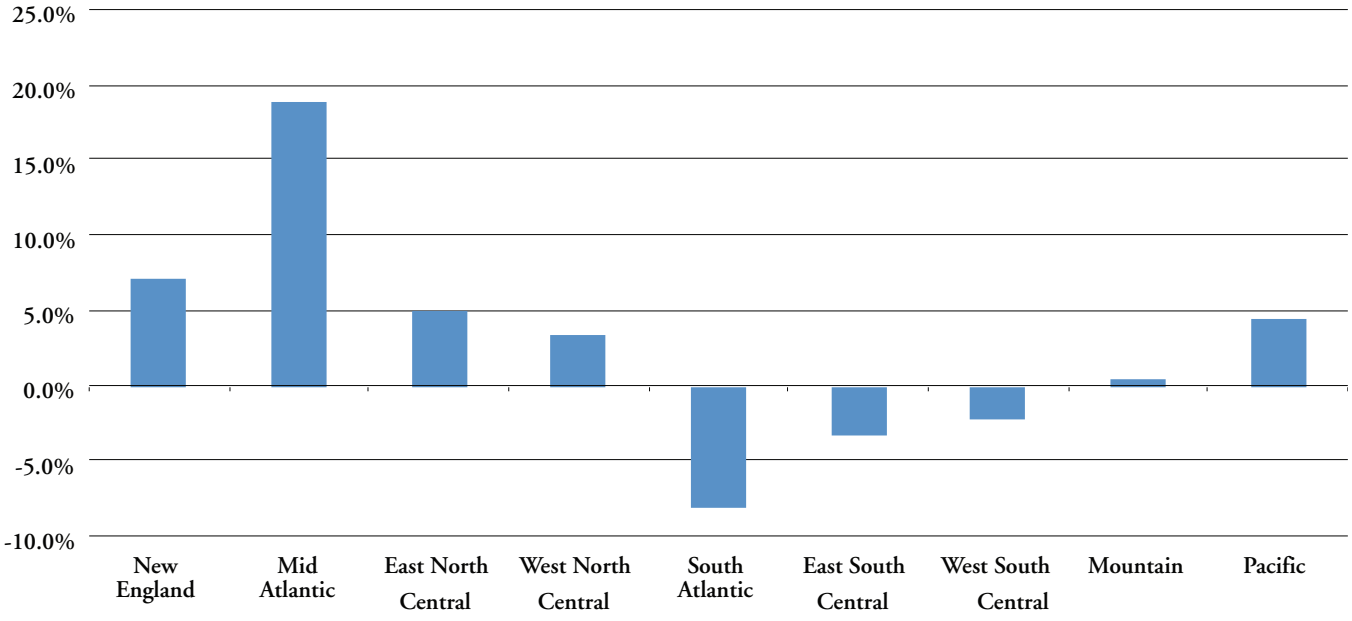


As in past years, fringe benefits, analyzed in Figure 12, exhibited the greatest volatility, surging by 18.9 percent in the Middle Atlantic region but declining by a deflationary -8.0 percent in the South Atlantic region. In the other regions, fringe benefit inflation ranged from 7.1 percent in the New England region and 4.9 percent in the East North Central region, through increases of 3.4 percent and 4.4 percent, respectively, in the West North Central and Pacific regions, to a modest 0.5 percent increase in the Mountain region. Deflationary rates were observed in the East South Central and West South Central regions of -3.2 percent and -2.2 percent, respectively. This very wide range of inflation and deflation rates indicates, as we have noted in the past, that the forces influencing this cost factor are far from uniform.

Some pronounced year-to-year changes in benefit costs were observed among the regions. The Middle Atlantic region showed the widest positive swing, of 1,910 basis points, and the East North Central region reported an increase of 710 basis points. The Pacific region reported an increase of 170 basis points, while for the New England region the increase was just 30 basis points. In the other regions, declines in the inflation rate for benefit costs were reported. These ranged from the Mountain and West North Central regions, where they fell by 160 and 170 basis points, respectively, through the East South Central region, where a 480 basis point decline was reported, to the West South Central and South Atlantic regions, which reported declines of 770 and 970 basis points, respectively.

FIGURE 12

FY2013 Fringe Benefits by Region



LIMITATIONS AND OPPORTUNITIES OF HEPI BY INSTITUTIONAL TYPE AND REGION

In providing HEPI figures and analysis by type of institution and geographical region, it is appropriate to bear in mind the limitations of the methodology employed while also recognizing the potential opportunities for users of these indices to improve their fit with their own institution.

As noted, the institutional and regional HEPI indices are derived by substituting appropriate data for faculty salaries and fringe benefits into the standard HEPI regression equation, while leaving the other six cost factors unchanged. These two categories, which together account for nearly half of the factor weighting in the HEPI equation, are the only ones for which information by institutional type and region is available. Since the other six factors, representing over half the weighting, are not changed, the institutional and regional HEPI indices are of necessity approximations and should be used accordingly.

In deriving the institutional and regional indices, the standard HEPI equation's factor weightings are also left unchanged. This is of relatively little importance in the institutional HEPI, where each category includes schools throughout the nation; in the regional HEPI, however, the weightings are kept the same because there is no standard source of information to serve as a guide to how they might be appropriately adjusted for each region.

For example, in a region where weather patterns are comparatively moderate the weighting assigned to utilities may be too high, while in a region of severe weather it might be appropriate to increase it. Users of the regional HEPI who are confident of the proportional composition of their institution's budgets, as expressed in the eight cost factors, may want to adjust the relative weightings of the factors in order to produce a HEPI that is more appropriate for their own institution.

PURCHASING POWER AND SALARIES OF FULL-TIME PROFESSORS

As part of the calculation of HEPI, the Commonfund Institute also gathers information about the salaries of full-time professors at public and private institutions. As illustrated in Tables E and F, these salaries have been restated in constant dollar terms so that they reflect the impact of inflation as measured by CPI.

Table E shows that salaries of professors at public doctoral-level institutions have increased in constant terms over the last 46 years by $17,762, evidencing an increase in real purchasing power. For public comprehensive institutions, salaries have essentially stagnated in real terms, rising by only $474, while at public two-year colleges they have increased by $6,188 over the 45-year period.

Table F shows that at private colleges, salaries have kept up with inflation in all categories of institution. Salaries at doctoral-level institutions have led the way with a real increase of $53,519 over 46 years, while those at comprehensive schools have increased by $23,114. Salaries at general baccalaureate institutions have increased by $23,730 over the shorter 36-year period that they have been tracked since 1977.

Comparing public and private institutions, it is apparent that salaries for professors at public doctoral-level and comprehensive institutions have lagged behind those for professors at comparable private institutions. This gap has grown in recent decades. Average salaries for full professors at doctoral-level public institutions, for example, are currently $123,393 while their counterparts at private institutions make $167,118 – a gap of more than $43,700. This gap, in real terms, was just under $8,000 in FY1967, indicating that professors at private doctoral-level institutions have benefited by an increase of more than $35,700 in real purchasing power over the intervening decades.

At comprehensive institutions, the relative positions have actually reversed. In FY1967, full professors at public comprehensive institutions made over $7,400 more than their counterparts at private institutions as measured in current dollars. By FY2013, however, this advantage had been reversed, with professors at comprehensive private institutions making $15,198 more – a gain over 45 years of more than $22,600 in real terms.

TABLE E

HIGHER EDUCATION FACULTY SALARIES IN CURRENT AND CONSTANT FY2013 DOLLARS* ILLUSTRATIVE DATA

Public Faculty Salaries

Full professor average 9 – 10 month salaries by type of institution

	Category I (Doctoral-Level)			Cat IIA (Comprehensive)			Cat III (Two-Year Colleges)		
Fiscal year	Amount	Yearly %	Constant FY13 dollars	Amount	Yearly %	Constant FY13 dollars	Amount	Yearly %	Constant FY13 dollars
1967	$15,273	----	$105,631	$12,798	----	$88,514	$9,927	----	$68,657
1968	$16,160	5.8%	$108,195	$13,747	7.4%	$92,040	$10,659	7.4%	$71,365
1969	$16,900	4.6%	$107,926	$14,550	5.8%	$92,919	$11,800	10.7%	$75,357
1970	$17,750	5.0%	$107,029	$15,400	5.8%	$92,859	$12,950	9.7%	$78,086
1971	$18,600	4.8%	$106,579	$16,350	6.2%	$93,687	$14,150	9.3%	$81,081
1972	$19,678	5.8%	$108,791	$17,313	5.9%	$95,716	$15,217	7.5%	$84,128
1973	$20,545	4.4%	$109,303	$18,446	6.5%	$98,136	$17,080	12.2%	$90,868
1974	$21,400	4.2%	$104,525	$19,600	6.3%	$95,733	$18,100	6.0%	$88,406
1975	$22,648	5.8%	$99,516	$20,840	6.3%	$91,572	$19,312	6.7%	$84,858
1976	$24,277	7.2%	$99,647	$22,067	5.9%	$90,576	$20,254	4.9%	$83,134
1977	$25,210	3.8%	$97,789	$23,190	5.1%	$89,953	$21,860	7.9%	$84,794
1978	$26,420	4.8%	$96,020	$24,290	4.7%	$88,279	$23,240	6.3%	$84,463
1979	$28,000	6.0%	$93,058	$25,030	3.0%	$83,187	$23,420	0.8%	$77,836
1980	$30,120	7.6%	$88,307	$27,200	8.7%	$79,746	$25,190	7.6%	$73,853
1981	$32,850	9.1%	$86,354	$29,580	8.8%	$77,758	$26,200	4.0%	$68,873
1982	$35,680	8.6%	$86,313	$31,700	7.2%	$76,685	$27,720	5.8%	$67,057
1983	$38,180	7.0%	$88,522	$33,490	5.6%	$77,648	$30,480	10.0%	$70,669
1984	$39,770	4.2%	$88,958	$34,560	3.2%	$77,304	$31,510	3.4%	$70,482
1985	$42,560	7.0%	$91,613	$37,090	7.3%	$79,839	$33,230	5.5%	$71,530
1986	$45,560	7.0%	$95,312	$39,720	7.1%	$83,095	$34,870	4.9%	$72,949
1987	$48,740	7.0%	$99,740	$42,290	6.5%	$86,541	$37,460	7.4%	$76,657
1988	$51,080	4.8%	$100,365	$46,060	8.9%	$90,502	$38,230	2.1%	$75,117
1989	$54,240	6.2%	$101,828	$46,920	1.9%	$88,086	$41,200	7.8%	$77,347
1990	$57,520	6.0%	$103,062	$49,610	5.7%	$88,889	$43,000	4.4%	$77,046
1991	$60,450	5.1%	$102,753	$52,190	5.2%	$88,713	$45,050	4.8%	$76,576
1992	$61,950	2.5%	$102,012	$53,750	3.0%	$88,510	$47,700	5.9%	$78,547
1993	$63,250	2.1%	$100,997	$54,240	0.9%	$86,610	$47,820	0.3%	$76,359
1994	$64,860	2.5%	$101,062	$55,690	2.7%	$86,774	$49,120	2.7%	$76,537
1995	$67,560	4.2%	$102,246	$57,090	2.5%	$86,400	$51,490	4.8%	$77,925
1996	$69,750	3.2%	$102,743	$58,520	2.5%	$86,201	$51,560	0.1%	$75,949
1997	$72,220	3.5%	$103,425	$60,481	3.4%	$86,614	$52,752	2.3%	$75,545
1998	$75,154	4.1%	$105,733	$61,839	2.2%	$87,000	$53,024	0.5%	$74,598
1999	$79,284	5.5%	$109,680	$63,817	3.2%	$88,283	$55,326	4.3%	$76,537
2000	$82,535	4.1%	$110,934	$66,657	4.5%	$89,592	$57,089	3.2%	$76,732
2001	$84,007	1.8%	$109,178	$68,828	3.3%	$89,451	$57,932	1.5%	$75,290
2002	$89,631	6.7%	$114,466	$72,770	5.7%	$92,933	$60,997	5.3%	$77,898
2003	$92,387	3.1%	$115,448	$74,545	2.4%	$93,152	$65,730	7.8%	$82,137
2004	$94,606	2.4%	$115,690	$74,872	0.4%	$91,558	$64,439	-2.0%	$78,800
2005	$97,948	3.5%	$116,278	$76,665	2.4%	$91,012	$66,405	3.1%	$78,832
2006	$101,620	3.7%	$116,212	$78,884	2.9%	$90,211	$66,011	-0.6%	$75,489
2007	$106,495	4.8%	$118,716	$81,855	3.8%	$91,249	$68,424	3.7%	$76,276
2008	$111,807	5.0%	$120,185	$85,642	4.6%	$92,059	$71,936	5.1%	$77,326
2009	$115,509	3.3%	$122,454	$88,357	3.2%	$93,670	$74,933	4.2%	$79,439
2010	$116,750	1.1%	$122,595	$89,648	1.5%	$94,136	$74,103	-1.1%	$77,813
2011	$118,054	1.1%	$121,513	$89,808	0.2%	$92,439	$74,092	-0.0%	$76,263
2012	$120,955	2.5%	$120,955	$88,940	-1.0%	$88,940	$73,534	-0.8%	$73,534
2013	$123,393	2.0%	$123,393	$88,988	0.1%	$88,988	$74,845	1.8%	$74,845

**Constant dollars based on inflation measured by the Consumer Price Index.*
Sources: FY1967 – FY1976, NCES; FY1977 – present, AAUP

TABLE F

HIGHER EDUCATION FACULTY SALARIES IN CURRENT AND CONSTANT FY2013 DOLLARS*
ILLUSTRATIVE DATA

Private Faculty Salaries

Full professor average 9 – 10 month salaries by type of institution

	Category I (Doctoral-Level)			Cat IIA (Comprehensive)			Cat III (Two-Year Colleges)		
Fiscal year	Amount	Yearly %	Constant FY13 dollars	Amount	Yearly %	Constant FY13 dollars	Amount	Yearly %	Constant FY13 dollars
1967	$16,425	----	$113,599	$11,722	----	$81,072			
1968	$17,057	3.8%	$114,201	$12,572	7.3%	$84,173			
1969	$18,050	5.8%	$115,270	$13,250	5.4%	$84,617			
1970	$18,950	5.0%	$114,265	$14,100	6.4%	$85,020			
1971	$19,800	4.5%	$113,456	$14,950	6.0%	$85,665			
1972	$20,775	4.9%	$114,855	$15,899	6.3%	$87,898			
1973	$21,507	3.5%	$114,421	$16,501	3.8%	$87,788			
1974	$22,600	5.1%	$110,386	$17,200	4.2%	$84,010			
1975	$23,832	5.5%	$104,719	$18,047	4.9%	$79,299			
1976	$25,368	6.4%	$104,125	$19,153	6.1%	$78,615			
1977	$27,810	9.6%	$107,874	$22,020	15.0%	$85,415	$20,780		$80,605
1978	$28,880	3.8%	$104,961	$23,380	6.2%	$84,972	$21,790	4.9%	$79,193
1979	$31,090	7.7%	$103,328	$24,830	6.2%	$82,523	$23,230	6.6%	$77,205
1980	$33,400	7.4%	$97,923	$26,160	5.4%	$76,697	$24,740	6.5%	$72,534
1981	$36,000	7.8%	$94,635	$28,710	9.7%	$75,471	$27,030	9.3%	$71,055
1982	$40,220	11.7%	$97,296	$31,530	9.8%	$76,274	$29,720	10.0%	$71,896
1983	$43,950	9.3%	$101,900	$33,750	7.0%	$78,251	$32,410	9.1%	$75,144
1984	$47,070	7.1%	$105,286	$36,000	6.7%	$80,525	$34,140	5.3%	$76,365
1985	$49,880	6.0%	$107,370	$37,980	5.5%	$81,755	$36,500	6.9%	$78,569
1986	$53,190	6.6%	$111,274	$40,170	5.8%	$84,036	$38,200	4.7%	$79,915
1987	$56,900	7.0%	$116,439	$42,680	6.2%	$87,339	$40,460	5.9%	$82,796
1988	$59,850	5.2%	$117,597	$44,010	3.1%	$86,474	$42,540	5.1%	$83,585
1989	$64,290	7.4%	$120,696	$47,010	6.8%	$88,255	$44,770	5.2%	$84,049
1990	$68,360	6.3%	$122,485	$51,000	8.5%	$91,380	$46,830	4.6%	$83,908
1991	$72,950	6.7%	$124,001	$52,820	3.6%	$89,784	$49,610	5.9%	$84,328
1992	$76,890	5.4%	$126,614	$54,980	4.1%	$90,535	$52,230	5.3%	$86,007
1993	$80,280	4.4%	$128,190	$57,060	3.8%	$91,113	$54,620	4.6%	$87,217
1994	$82,520	2.8%	$128,579	$59,610	4.5%	$92,882	$56,780	4.0%	$88,472
1995	$84,790	2.8%	$128,322	$60,830	2.0%	$92,061	$58,040	2.2%	$87,838
1996	$88,050	3.8%	$129,700	$63,430	4.3%	$93,434	$59,830	3.1%	$88,131
1997	$92,112	4.6%	$131,912	$64,468	1.6%	$92,323	$62,047	3.7%	$88,856
1998	$95,023	3.2%	$133,686	$67,282	4.4%	$94,658	$64,784	4.4%	$91,143
1999	$98,606	3.8%	$136,409	$69,509	3.3%	$96,157	$67,180	3.7%	$92,935
2000	$103,761	5.2%	$139,463	$71,547	2.9%	$96,165	$70,528	5.0%	$94,795
2001	$107,633	3.7%	$139,883	$75,143	5.0%	$97,658	$74,031	5.0%	$96,213
2002	$112,534	4.6%	$143,715	$77,310	2.9%	$98,731	$76,692	3.6%	$97,942
2003	$118,269	5.1%	$147,790	$80,011	3.5%	$99,983	$79,928	4.2%	$99,879
2004	$122,158	3.3%	$149,383	$81,570	1.9%	$99,749	$82,344	3.0%	$100,695
2005	$127,214	4.1%	$151,021	$83,986	3.0%	$99,703	$85,575	3.9%	$101,589
2006	$131,292	3.2%	$150,144	$88,800	5.7%	$101,551	$87,779	2.6%	$100,383
2007	$136,689	4.1%	$152,375	$91,197	2.7%	$101,663	$90,353	2.9%	$100,722
2008	$144,428	5.7%	$155,250	$95,114	4.3%	$102,241	$94,139	4.2%	$101,193
2009	$151,403	4.8%	$160,507	$99,555	4.7%	$105,541	$98,808	5.0%	$104,749
2010	$153,332	1.3%	$161,008	$99,963	0.4%	$104,968	$98,098	-0.7%	$103,009
2011	$157,282	2.6%	$161,890	$101,290	1.3%	$104,258	$99,976	1.9%	$102,905
2012	$162,561	3.4%	$162,561	$103,094	1.8%	$103,094	$101,568	1.6%	$101,568
2013	$167,118	2.8%	$167,118	$104,186	1.1%	$104,186	$104,335	2.7%	$104,335

**Constant dollars based on inflation measured by the Consumer Price Index.*
Sources: FY1967 – FY1976, NCES; FY1977 – present, AAUP

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