



# Commonfund Higher Education Price Index®

2018 Update

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## About Commonfund Institute

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Commonfund Institute houses the education and research activities of Commonfund and provides the entire 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. It provides a wide variety of resources, including conferences, seminars and roundtables on topics such as endowments and governance; proprietary and third-party research such as the Commonfund Benchmark Studies®; publications including the Commonfund Higher Education Price Index® (HEPI); and events such as the annual Commonfund Forum and Investment Stewardship Academy.

## Executive Summary

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Commonfund Higher Education Price Index (HEPI) data show that inflation for colleges and universities was 2.8 percent for fiscal year 2018, a decline from last year's 3.3 percent but higher than the average of 2.4 percent for the preceding five fiscal years. Over the past 10 years, FY2018 HEPI was the third highest rate of inflation, trailing only FY2017 and FY2014.<sup>1</sup>

FY2018 costs rose in all eight components tracked by HEPI compared with last year when costs rose in seven of the eight. Differentiating this year from last, this year no single cost rose as much as last year's 14.5 percent increase in utility costs and 4.1 percent in fringe benefits; instead, costs this year were in a tighter range of 1.7 percent (for utilities) to 3.4 percent (for service employees).

## Introduction: The Higher Education Price Index

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### 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 subsequent years, in keeping with its commitment to improving and expanding the index, Commonfund Institute has expanded HEPI to include additional calculations and measures.

HEPI is compiled using data items from publicly-available sources that are released at different points in the academic fiscal year, from July 1 through the following June 30.

**IMPORTANT NOTE:** In 2015, the American Association of University Professors (AAUP) began using a new methodology that was not directly comparable with the past; therefore, data on faculty salaries and fringe benefits, as well as information by region and type of institution, was excluded from the 2016 and 2017 HEPI reports. The conversion has been completed and the 2018 report once again includes these data points. Additionally, due to the modification mentioned above, last year's FY2017 HEPI number has been restated to 3.3 percent.

HEPI data is provided free of charge via Commonfund's website at [www.commonfund.org](http://www.commonfund.org).

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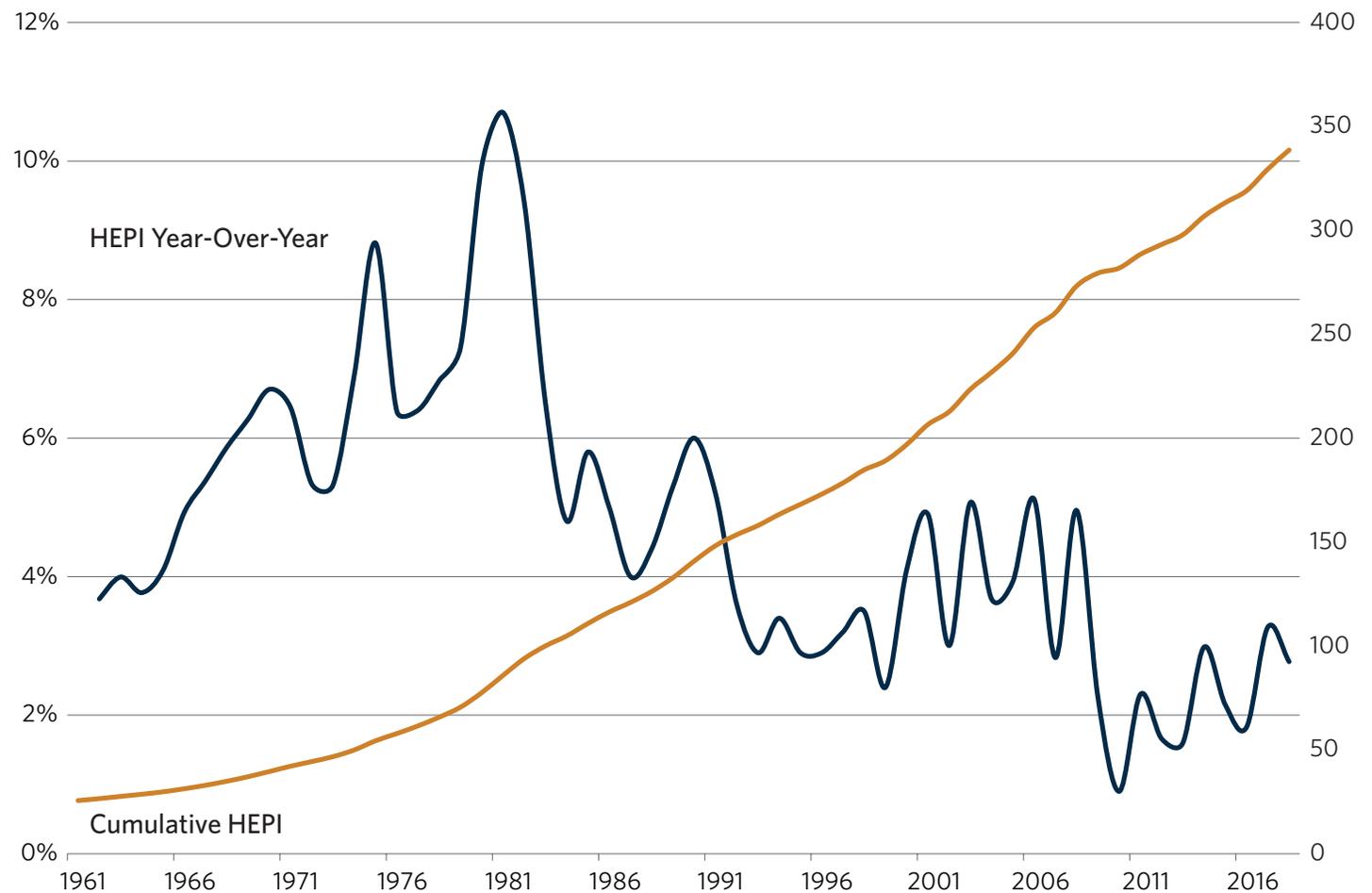
<sup>1</sup> As noted throughout the following report, a change in methodology for computing faculty salaries and fringe benefits means that data for these factors are not directly comparable with years prior to FY2016. We have, however, used what we believe are reasonable estimates for changes in these two components. Please read the important notes for more details.

## The HEPI Tables

The chart below shows HEPI from fiscal years 1961 to 2018. 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. HEPI data beginning with FY2002 have been restated to reflect methodological improvements adopted in 2009.

### HIGHER EDUCATION PRICE INDEX

1961 - 2018



This chart traces the Higher Education Price Index (HEPI) from 1961 to 2018. Cumulative HEPI is represented by the steadily increasing orange 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 4, 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**

Fiscal Years 1961 to 2018

| 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%            | 2014                              | 306.7                       | 3.0%            | 239.4                      | 1.6%            |
| 1985                              | 110.8                       | 5.8%            | 107.7                      | 3.9%            | 2015                              | 313.3                       | 2.1%            | 241.1                      | 0.7%            |
| 1986                              | 116.3                       | 5.0%            | 110.8                      | 2.9%            | 2016                              | 319.0                       | 1.8%            | 242.8                      | 0.7%            |
| 1987                              | 120.9                       | 4.0%            | 113.3                      | 2.2%            | 2017                              | 329.5                       | 3.3%            | 247.2                      | 1.8%            |
| 1988                              | 126.2                       | 4.4%            | 118.0                      | 4.1%            | 2018                              | 338.6                       | 2.8%            | 252.8                      | 2.3%            |
| 1989                              | 132.8                       | 5.3%            | 123.5                      | 4.7%            |                                   |                             |                 |                            |                 |
| 1990                              | 140.8                       | 6.0%            | 129.4                      | 4.8%            |                                   |                             |                 |                            |                 |

Sources: HEPI, Research Associates of Washington; CPI, Bureau of Labor Statistics, U.S. Department of Labor.  
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)

IMPORTANT NOTE: Two of the main HEPI cost factors, faculty salaries and fringe benefits, are derived from faculty compensation data published by the American Association of University Professors (AAUP), which in FY2016 began using a new methodology that is not directly comparable with the past. Due to this change in methodology, in the two previous years' reports we have used what we believe are reasonable estimates for changes in faculty salaries and fringe benefits to aid in the transition from FY2015 to subsequent years. With this report we are once again calculating faculty salaries and fringe benefits based on the previous (pre 2016) AAUP methodology.

**TABLE B****HIGHER EDUCATION PRICE INDEX 2007 – 2018**

Regression Analysis of Components – Fiscal Years 1961 to 2018

|                    | Fiscal Year | Regression HEPI | Faculty Salaries | Administrative Salaries | Clerical | Service Employees | Fringe Benefits | Miscellaneous Services | Supplies & Materials | Utilities |
|--------------------|-------------|-----------------|------------------|-------------------------|----------|-------------------|-----------------|------------------------|----------------------|-----------|
| Index Value        | 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     |
|                    | 2014        | 306.7           | 301.0            | 366.4                   | 274.8    | 242.0             | 458.3           | 274.2                  | 200.2                | 211.4     |
|                    | 2015        | 313.3           | 307.7            | 381.9                   | 280.4    | 248.4             | 484.0           | 279.8                  | 190.6                | 183.5     |
|                    | 2016        | 319.0           | 316.0            | 393.3                   | 289.1    | 253.3             | 503.9           | 285.7                  | 179.5                | 146.5     |
|                    | 2017        | 329.5           | 323.5            | 405.2                   | 297.3    | 262.7             | 524.7           | 290.7                  | 178.6                | 167.8     |
| 2018               | 338.6       | 333.9           | 414.1            | 305.9                   | 271.6    | 536.7             | 297.8           | 183.7                  | 170.7                |           |
| Standard Deviation | 2003-2018   | 37.5            | 34.1             | 54.4                    | 30.4     | 24.5              | 79.9            | 28.9                   | 23.6                 | 34.9      |
| Yearly% change     | 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%               | 2.1%      |
|                    | 2014        | 3.0%            | 2.2%             | 1.1%                    | 1.9%     | 1.1%              | 4.8%            | 1.8%                   | 11.2%                | 8.1%      |
|                    | 2015        | 2.1%            | 2.2%             | 4.2%                    | 2.1%     | 2.6%              | 5.6%            | 2.1%                   | -4.8%                | -13.2%    |
|                    | 2016        | 1.8%            | 2.7%             | 3.0%                    | 3.1%     | 2.0%              | 4.1%            | 2.1%                   | -5.8%                | -20.2%    |
|                    | 2017        | 3.3%            | 2.4%             | 3.0%                    | 2.8%     | 3.7%              | 4.1%            | 1.7%                   | -0.5%                | 14.5%     |
| 2018               | 2.8%        | 3.2%            | 2.2%             | 2.9%                    | 3.4%     | 2.3%              | 2.4%            | 2.8%                   | 1.7%                 |           |

IMPORTANT NOTE: Two of the main HEPI cost factors, faculty salaries and fringe benefits, are derived from faculty compensation data published by the American Association of University Professors (AAUP), which in FY2016 began using a new methodology that is not directly comparable with the past. Due to this change in methodology, in this year's report we have used what we believe are reasonable estimates for changes in faculty salaries and fringe benefits to aid in the transition from FY2015 to FY2017 and beyond.

## 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  |
| Admin     | 0.10428948   |
| Clerical  | 0.18408585   |
| Service   | 0.082314791  |
| Fringe    | 0.131020859  |
| Services  | 0.022899544  |
| Supplies  | 0.05513843   |
| Utilities | 0.068247106  |

## Higher Education Price Index Analysis

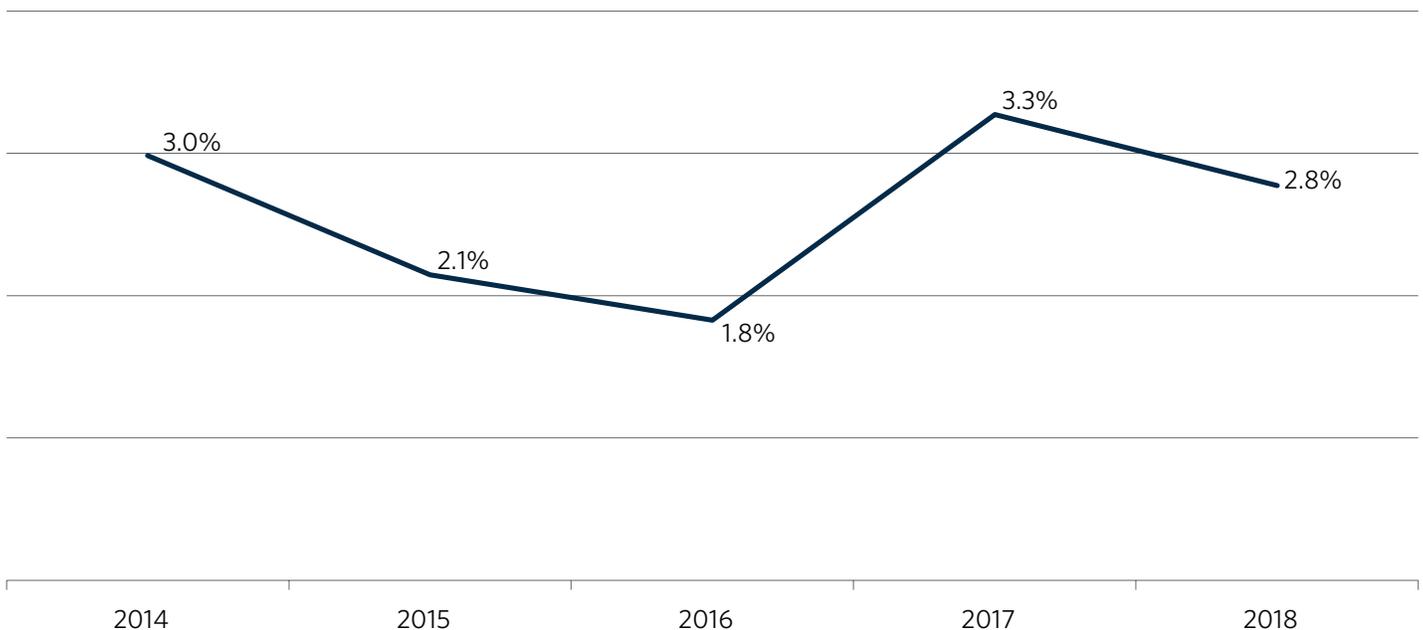
### HEPI for 2018

For fiscal year 2018, which ended on June 30, the HEPI calculation reveals that inflation for colleges and universities was 2.8 percent, representing a decline from FY2017's 3.3 percent (which was also the highest rate of inflation in the past decade and the highest since 5.0 percent in FY2008). FY2018's 2.8 percent was, nevertheless, considerably higher than the 1.8 percent reported for FY2016 and FY2015's 2.1 percent.

**FIGURE 1**

### THE HIGHER EDUCATION PRICE INDEX

Fiscal years 2014 - 2018



- There are eight cost factor components that contribute to the HEPI regression calculation: faculty salaries, administrative salaries, clerical costs, service employee costs, fringe benefits, miscellaneous services, supplies & 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 salaries, clerical salaries and fringe benefits.

## Highlights of 2018 Study

For FY2018, costs rose in all eight of the components tracked by HEPI; a year ago, costs rose in seven of the eight, the only exception being supplies & materials. The chief causes of the increase in HEPI from FY2016 to FY2017 were: a 14.5 percent increase in utility costs; a 4.1 percent increase in fringe benefits; and a 3.7 percent increase in service employee costs. This year, the largest increases were 3.4 percent in service employee costs and 3.2 percent in faculty salaries. They were the only two cost components to reach or exceed the 3.0 percent level.

## Supporting Data

- All other costs were in the 1.7 percent range, from 1.7 percent for utilities to 2.9 percent for clerical costs. Close behind, supplies & materials rose 2.8 percent. Other cost increases were: 2.2 percent for administrative salaries, 2.3 percent for fringe benefits and 2.4 percent for miscellaneous services.
- Utilities, which last year represented the greatest single cost increase, was this year's lowest cost increase. Utility costs have been highly volatile in recent years, as they declined 20.2 percent in FY2016 and 13.1 percent in FY2015. Service employee costs, the largest increase this year, was the third highest increase last year.
- The increase in costs for supplies & materials was only the second time in the past six years that this component has risen.
- While service employee costs rose 3.4 percent in FY2018, they account for only 8 percent of cost factor weightings overall. The second-highest increase, faculty salaries at 3.2 percent, account for 35 percent of cost factor weightings, by far the largest. The third-highest increase this year, clerical costs at 2.9 percent, represent the second-largest weighting factor at 18 percent.

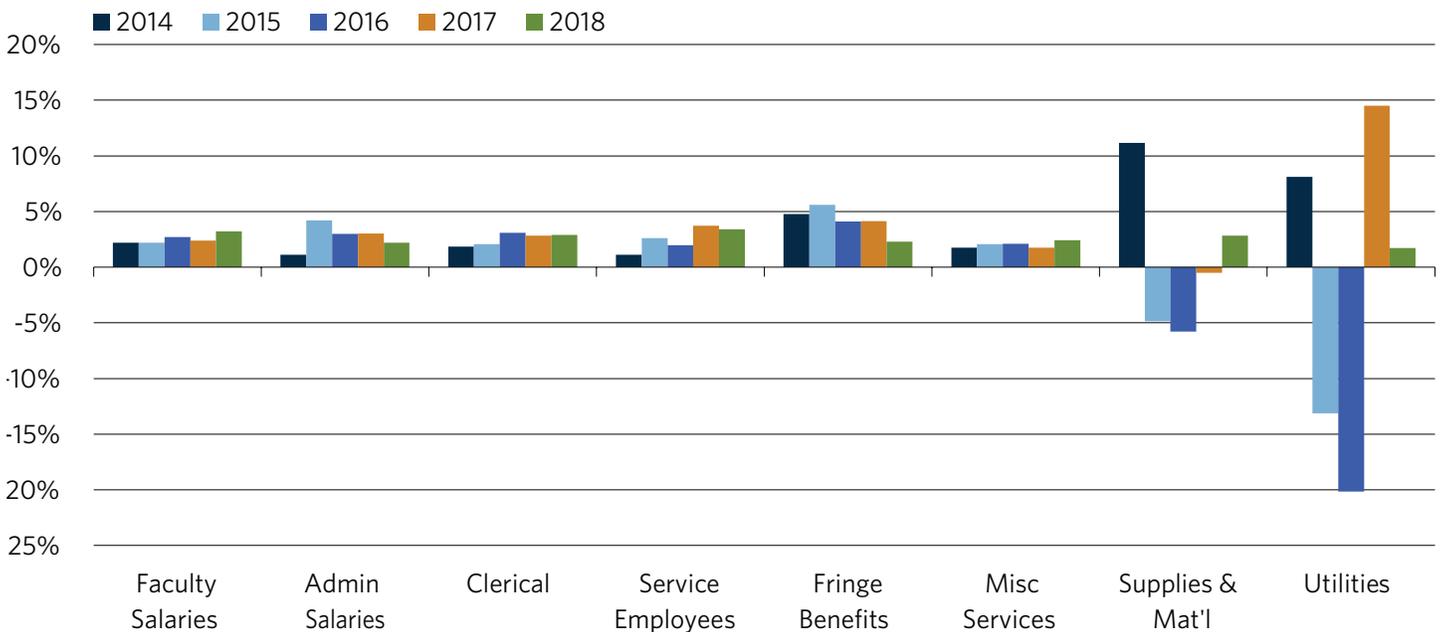
## 5-Year Changes in Cost Factors:

### Figure 2 Analysis

Figure 2 that follows shows a graphical representation of the changes in the eight cost factors from FY2014 to FY2018. The chart shows that six cost factors were reasonably stable over the period, rising steadily but not dramatically in any single year. The other two cost factors showed considerable volatility. As mentioned, the most dramatic year-over-year changes have occurred in utilities, which had an inflation rate of 14.5 percent for FY2017, versus -20.2 percent for FY2016 and -13.2 percent for FY2015. This year, utilities showed the least rate of change in the five-year period, rising 1.7 percent. While supplies & materials spiked in FY2014, exhibiting an inflation rate of 11.2 percent, for the next three fiscal years costs in this component declined by an average of 3.7 percent annually. Costs for this component changed direction this year, rising 2.8 percent. Faculty salaries, accounting for the largest single share of the regression weighting, increased an average of 2.5 percent annually over the period from FY2014 to FY2018 (although we caution again that the methodology for this computation changed beginning in FY2015).

**FIGURE 2**

**ANNUAL PERCENTAGE CHANGES IN THE EIGHT HEPI COST FACTORS, FISCAL YEARS 2014 – 2018**

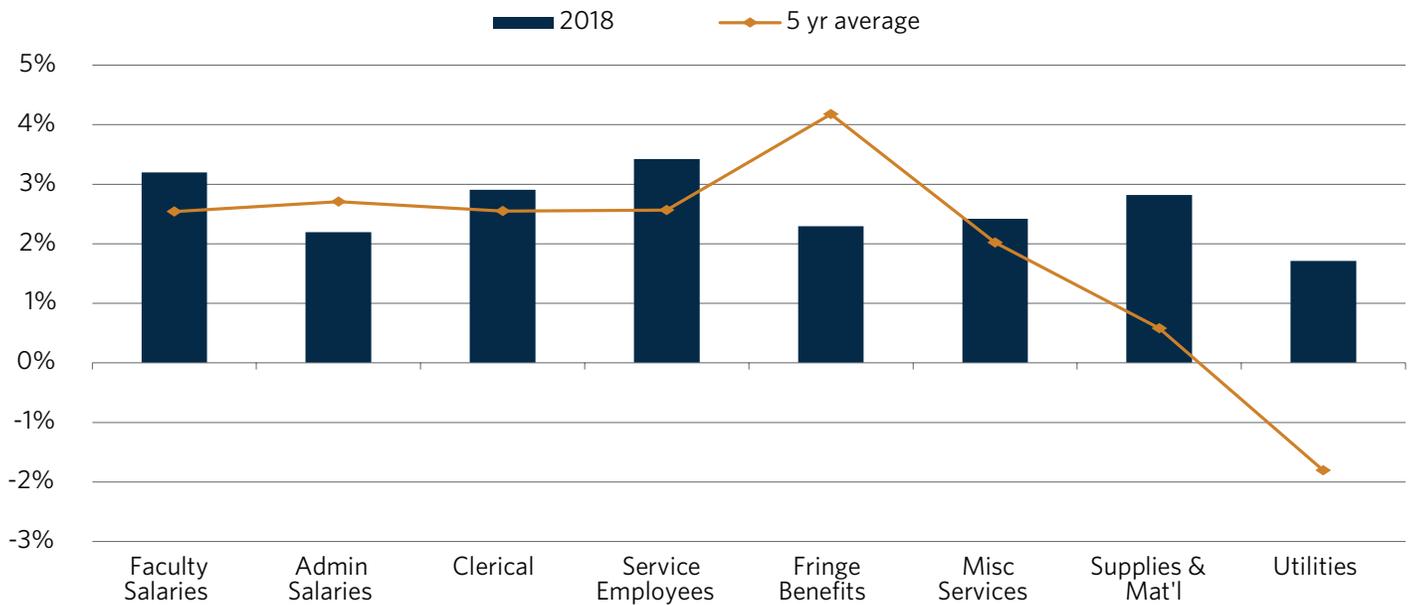


## HEPI for FY2018 versus a 5-Year Average:

### Figure 3 Analysis

Figure 3 shows the results of a longer-term analysis of HEPI's components, comparing the reported rates for FY2018 against their historical five-year averages.

- Of the eight cost factors, six rose in FY2018 compared with their five-year average. Only administrative salaries and fringe benefits were below their five-year average.
- For FY2018, the greatest deviation from the five-year average was in the utilities component, which rose 1.7 percent in FY2018 versus a five-year average of -1.8 percent.
- The second-highest deviation occurred in supplies & materials, which showed a 2.8 percent inflation rate for FY2018 versus a five-year average of 0.6 percent.
- The third-highest deviation was found in fringe benefits, which rose 2.3 percent in FY2018 compared with a five-year average of 4.2 percent. (We once again caution that fringe benefits are not directly comparable owing to the previously-mentioned change in calculation methodology for this component.)
- The component showing the least deviation was clerical costs, which rose 2.9 percent in FY2018 compared with a five-year average of 2.5 percent. This was followed by miscellaneous services, which rose 2.4 percent in FY2018 compared with a five-year average of 2.0 percent, and administrative salaries, which rose 2.2 percent in FY2018 versus a five-year average of 2.7 percent.

**FIGURE 3****ANNUAL PERCENTAGE CHANGES IN THE EIGHT HEPI COST FACTORS VS. 5-YEAR AVERAGE**

As was true last year, over the five-year period inflation rates for utilities have seen the highest volatility, owing to strongly positive and negative movements in this cost factor. Fiscal years 2013 and 2014 showed single-digit increases in costs for this component, a two-year average annual increase of 5.1 percent. For the next two fiscal years, costs declined 13.2 percent and 20.2 percent, respectively, for an average annual change of -16.7 percent. As noted, for FY2017 costs in this component changed direction once again and rose 14.5 percent. Costs for supplies & materials were lower, save for FY2014 and FY2018, when they rose 11.2 percent and 2.8 percent, respectively. For the other three fiscal years, costs in this component showed an average annual decrease of 3.7 percent. Costs in the other six components rose year-over-year throughout the period. From highest to lowest across the period, costs for miscellaneous services showed the least variability, while the greatest occurred in fringe benefits, followed closely by administrative salaries.

## Sensitivity Analysis of the 8 HEPI Regression Components:

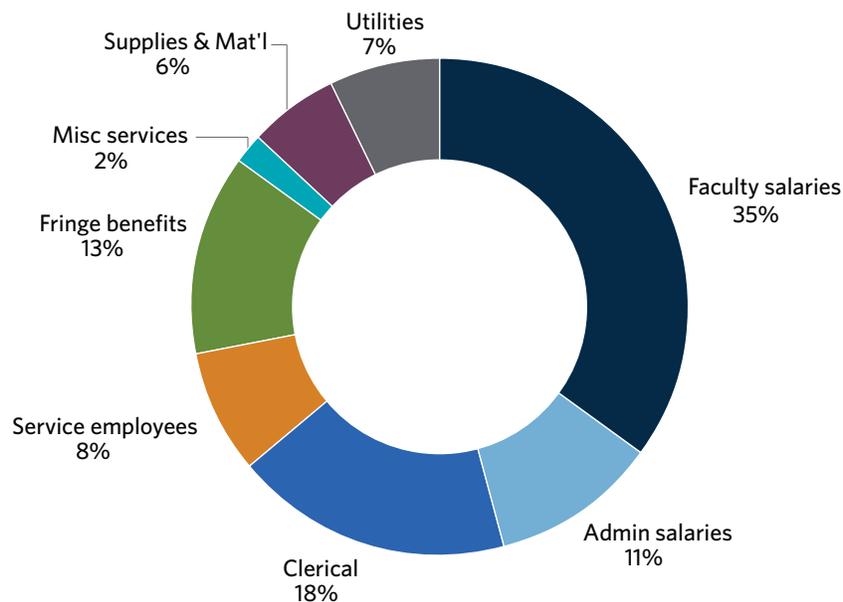
### Figure 4 Analysis

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 and supplies & materials the second-lowest. The low weightings of these two components have served to mitigate the effect of the extreme volatility that has characterized these cost factors in recent years.

**FIGURE 4**

#### HEPI COST FACTOR WEIGHTINGS



### Figure 5: Sensitivity of HEPI to a 5 Percent Increase in Faculty Salaries or Miscellaneous Services

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 333.9 to 350.6, 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                      | 338.6           | 333.9            | 414.1          | 305.9    | 271.6             | 536.7           | 297.8           | 183.6            | 171.2     |
| Yearly % Change                  | 2.8%            | 3.2%             | 2.2%           | 2.9%     | 3.4%              | 2.3%            | 2.4%            | 2.8%             | 2.0%      |
| Scenario: Faculty Salaries up 5% |                 |                  |                |          |                   |                 |                 |                  |           |
| Index Value                      | 344.5           | 350.6            | 414.1          | 305.9    | 271.6             | 536.7           | 297.8           | 183.6            | 171.2     |
| Yearly % Change                  | 4.6%            | 8.4%             | 3.0%           | 2.8%     | 3.7%              | 5.9%            | 1.7%            | -0.5%            | 14.8%     |
| Δ                                | <b>180 b.p.</b> | <b>520 b.p.</b>  |                |          |                   |                 |                 |                  |           |
| Scenario: Misc. Services up 5%   |                 |                  |                |          |                   |                 |                 |                  |           |
| Index Value                      | 339.0           | 333.9            | 414.1          | 305.9    | 271.6             | 536.7           | 312.6           | 183.6            | 171.2     |
| Yearly % Change                  | 2.9%            | 3.2%             | 2.2%           | 2.9%     | 3.4%              | 2.3%            | 7.5%            | 2.8%             | 2.0%      |
| Δ                                |                 | <b>10 b.p.</b>   |                |          |                   |                 | <b>510 b.p.</b> |                  |           |

## Higher Education Price Index for Different Types of Educational Institutions

---

Beginning in FY2007 Commonfund expanded the calculations of HEPI for eight components of educational institutions:

- Public institutions as a whole
- Public doctoral degree-granting institutions
- Public master's 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 page 13 shows HEPI for FY2005-2018 for these institutions.

HEPI showed an increase of 2.6 percent for public institutions and 2.9 percent for private institutions in FY2018. Excepting 2016 and 2017, when values were not calculated, and going back to the most recent five years when they were calculated, private institutions have shown higher inflation figures than public institutions in four years and an equal inflation rate in the other (FY2014).

Returning to the current year, HEPI was higher for private doctoral institutions than for their public counterparts (3.0 percent versus 2.5 percent) but higher for public master's degree-granting institutions, at 2.9 percent, compared to private institutions, at 2.1 percent. Public two-year colleges saw the index increase 2.4 percent while private baccalaureate institutions experienced at 2.8 percent rate of increase. (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.)

Insofar as overall HEPI is concerned, FY2018's 2.8 percent increase was the second highest in the last five years for which data are available, exceeded only by 3.0 percent in FY2014. In all components, public and private, FY2018 HEPI data show higher rates of inflation than were seen in FY2015.

**TABLE C**
**Higher Education Price Index 2005-2018  
by Major Categories of Public and Private Educational Institutions**

|                 | Fiscal year | NATIONAL | PUBLIC INSTITUTIONS |          |          | PRIVATE INSTITUTIONS |       |          |          |               |    |
|-----------------|-------------|----------|---------------------|----------|----------|----------------------|-------|----------|----------|---------------|----|
|                 |             | Total    | Total               | Doctoral | Master's | 2-Year College       | Total | Doctoral | Master's | Baccalaureate |    |
| Index Value     | 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         |    |
|                 | 2014        | 306.7    | 302.5               | 334.3    | 301.1    | 295.9                | 322.1 | 366.3    | 319.9    | 323.7         |    |
|                 | 2015        | 313.3    | 308.9               | 340.7    | 306.7    | 300.7                | 329.2 | 375.5    | 324.1    | 328.4         |    |
|                 | 2016        | **       | **                  | **       | **       | **                   | **    | **       | **       | **            | ** |
|                 | 2017        | 329.5    | 330.9               | 354.7    | 323.5    | 323.5                | 365.8 | 387.8    | 340.9    | 354.3         |    |
|                 | 2018        | 338.6    | 339.5               | 363.7    | 333.1    | 331.1                | 376.3 | 399.5    | 348.1    | 364.3         |    |
| Yearly % Change | 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%          |    |
|                 | 2014        | 3.0%     | 3.2%                | 2.7%     | 2.3%     | 3.4%                 | 3.2%  | 3.3%     | 2.3%     | 3.4%          |    |
|                 | 2015        | 2.1%     | 2.1%                | 1.9%     | 1.9%     | 1.6%                 | 2.2%  | 2.5%     | 1.3%     | 1.4%          |    |
|                 | 2016        | **       | **                  | **       | **       | **                   | **    | **       | **       | **            | ** |
|                 | 2017        | **       | **                  | **       | **       | **                   | **    | **       | **       | **            | ** |
|                 | 2018        | 2.8%     | 2.6%                | 2.5%     | 2.9%     | 2.4%                 | 2.9%  | 3.0%     | 2.1%     | 2.8%          |    |

IMPORTANT NOTES: AAUP changed methodologies in 2016.

The 2016 numbers produced by AAUP are incorrect and AAUP cannot reproduce the correct 2016 numbers because the organization is now using a different service bureau to gather its information.

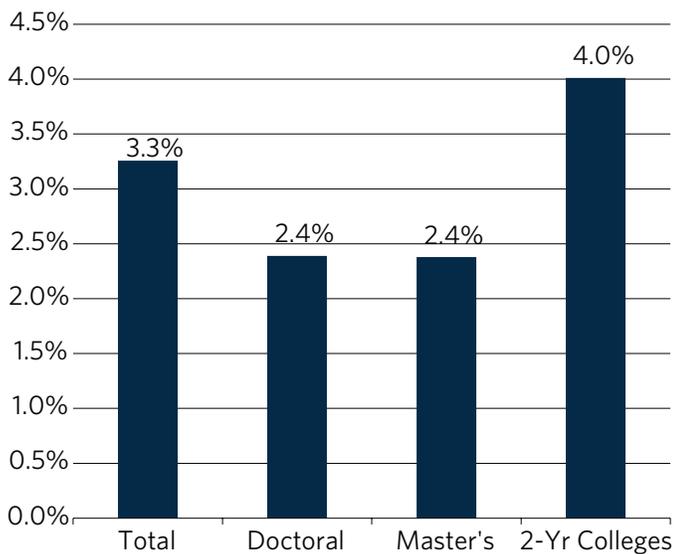
For tables/figures showing multiple years of data, for 2016 index values and when there is a percentage year-over-year change comparing 2017 to 2016 also produces incorrect percentage changes.

## 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 3.3 percent at public institutions and 3.4 percent at private institutions. Among public institutions, faculty salaries rose the most, at 4.0 percent, at two-year colleges. Faculty salaries at public doctoral institutions and master's institutions both saw an increase of 2.4 percent. Faculty salaries at private doctoral institutions rose at a rate of 3.1 percent; salaries at private master's institutions rose 2.2 percent, while baccalaureate institutions reported a 1.3 percent increase.

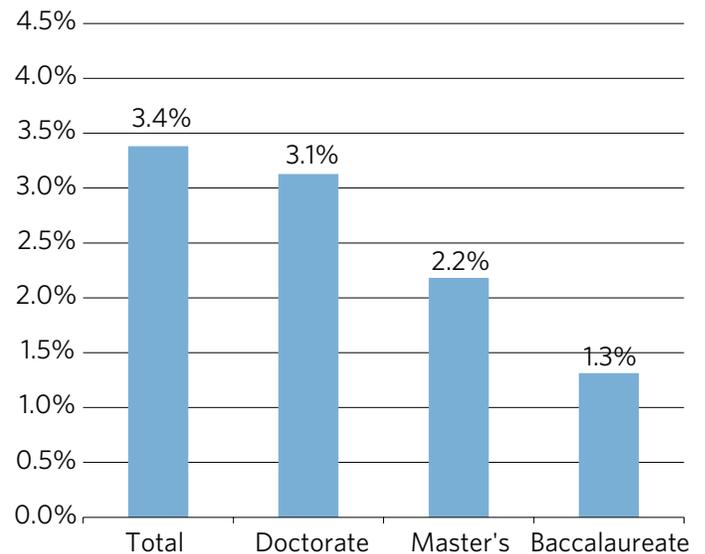
**FIGURE 6**

FY2018 Faculty Salaries — Public Institutions



**FIGURE 7**

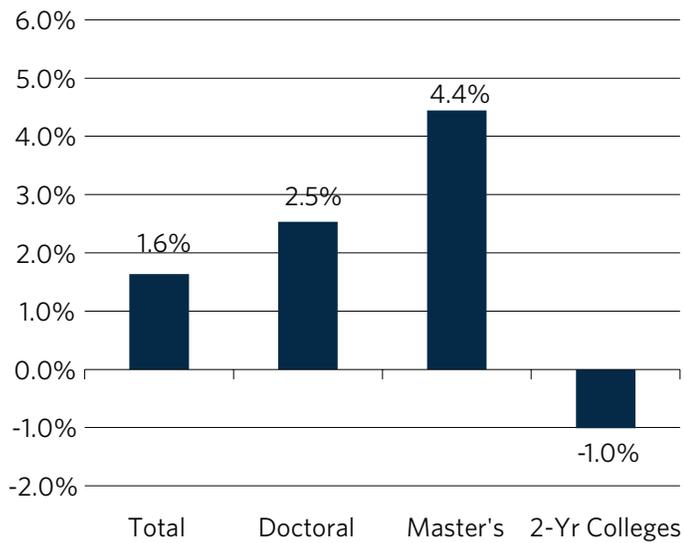
FY2018 Faculty Salaries — Private Institutions



Figures 8 and 9 show that at fringe benefit costs rose 1.6 percent at public institutions compared with 2.6 percent at private institutions. Within public institutions, master’s degree institutions reported the greatest rate of increase, 4.4 percent, while two-year colleges reported a decline of -1.0 percent. Doctoral institutions reported a 2.5 percent increase. Among private institutions, fringe benefits showed the sharpest rate of increase at baccalaureate institutions, rising 5.3 percent. Costs at doctoral institutions rose 3.4 percent while master’s degree-granting institutions reported an increase of 1.0 percent.<sup>2</sup>

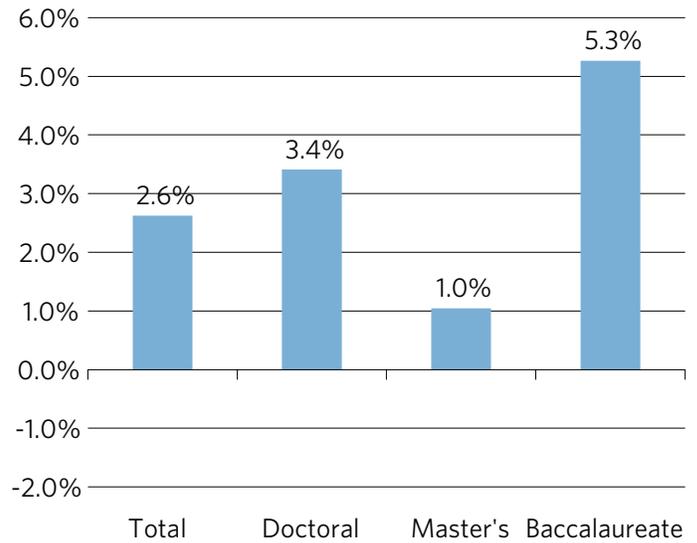
**FIGURE 8**

FY2018 Fringe Benefits — Public Institutions



**FIGURE 9**

FY2018 Fringe Benefits — Private Institutions

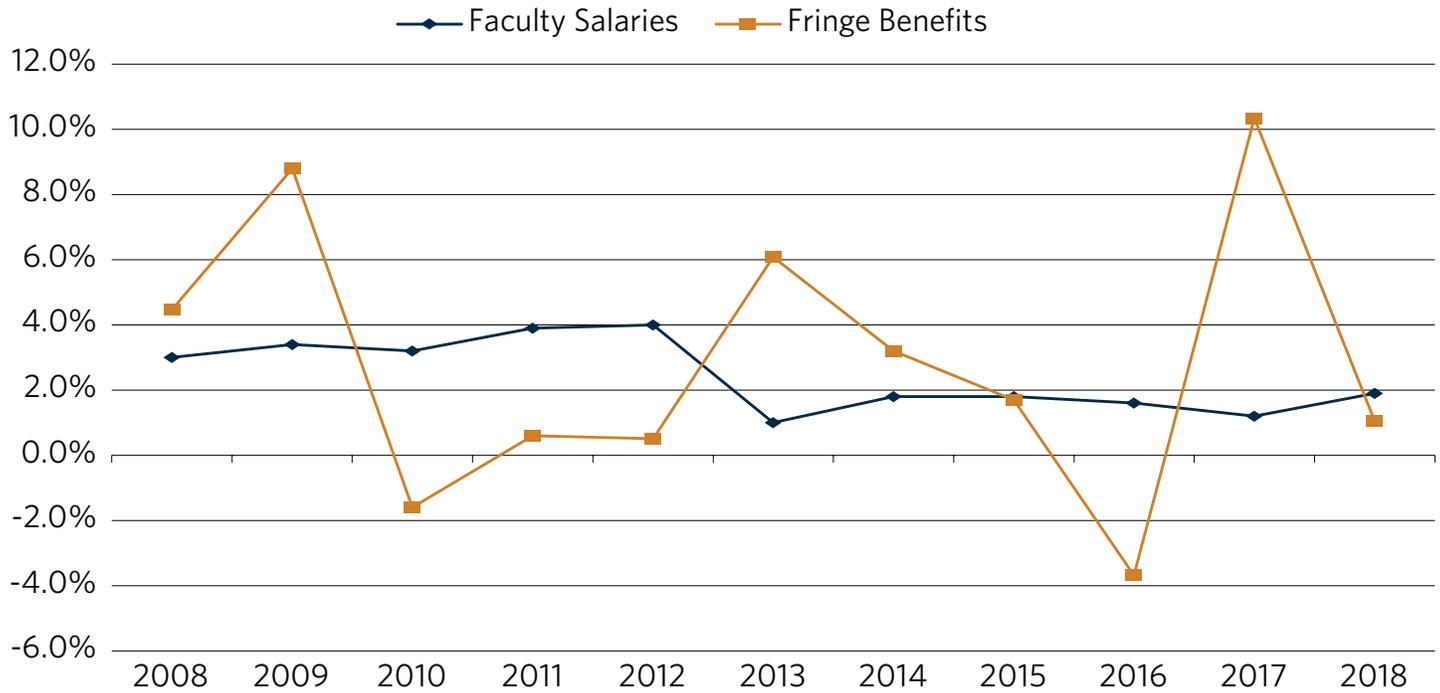


<sup>2</sup> Unlike a cross tabulation where Total is a composite of the parts, this table compares the Total from the previous year with the Total from the current year and there was a 3.4 percent increase. Apply the same logic for Doctorate, Master’s and Baccalaureate and each one shows the increase from the previous year.

As shown in Figure 10, over the past eleven 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



IMPORTANT NOTE: Figure 10 is a graphical representation of 11 years of Faculty Salaries and Fringe Benefits. One can see the erroneous swing from 2016 to 2017. The Fringe Benefits changes from negative 3.7 percent (incorrect) to a positive 10.3 percent.

## Higher Education Price Indices for Different Regions of the Country

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Beginning in FY2009, 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 FY2005-2018 for the nine regions.

The FY2018 HEPI, which was 2.8 percent on a national basis, ranged from a high of 3.7 percent in the West South Central region to a low of 1.8 percent in the Mountain region. Two other regions were at 3.0 percent or higher: Pacific at 3.5 percent and West North Central at 3.0 percent. All other regions were in a range of 2.2 percent to 2.8 percent.

**TABLE D**

| <b>Higher Education Price Index 2005-2018<br/>Summarized by Region</b> |                    |                      |                    |                        |                           |                           |                       |                           |                           |                 |                |    |
|--|--------------------|----------------------|--------------------|------------------------|---------------------------|---------------------------|-----------------------|---------------------------|---------------------------|-----------------|----------------|----|
|  | <b>Fiscal Year</b> | <b>HEPI National</b> | <b>New England</b> | <b>Middle Atlantic</b> | <b>East North Central</b> | <b>West North Central</b> | <b>South Atlantic</b> | <b>East South Central</b> | <b>West South Central</b> | <b>Mountain</b> | <b>Pacific</b> |    |
| <b>Index Value</b>   | 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          |    |
|  | 2014               | 306.7                | 314.2              | 307.2                  | 302.1                     | 308.5                     | 300.1                 | 307.4                     | 314.0                     | 307.2           | 323.7          |    |
|  | 2015               | 313.3                | 320.5              | 310.1                  | 308.1                     | 314.3                     | 304.9                 | 312.5                     | 319.6                     | 316.1           | 331.8          |    |
|  | 2016               | **                   | **                 | **                     | **                        | **                        | **                    | **                        | **                        | **              | **             | ** |
|  | 2017               | 329.5                | 345.5              | 331.1                  | 327.4                     | 332.7                     | 332.7                 | 331.2                     | 341.3                     | 335.7           | 360.2          |    |
|  | 2018               | 338.6                | 353.0              | 340.3                  | 336.3                     | 342.6                     | 341.7                 | 338.7                     | 354.0                     | 341.6           | 372.8          |    |

IMPORTANT NOTE: Due to changes in the methodology used by AAUP, there is a discontinuity with the past. This change resulted in figures that are inaccurate for FY2016. The AAUP does not plan to restate these figures.

## Cost Factor Differences by Region

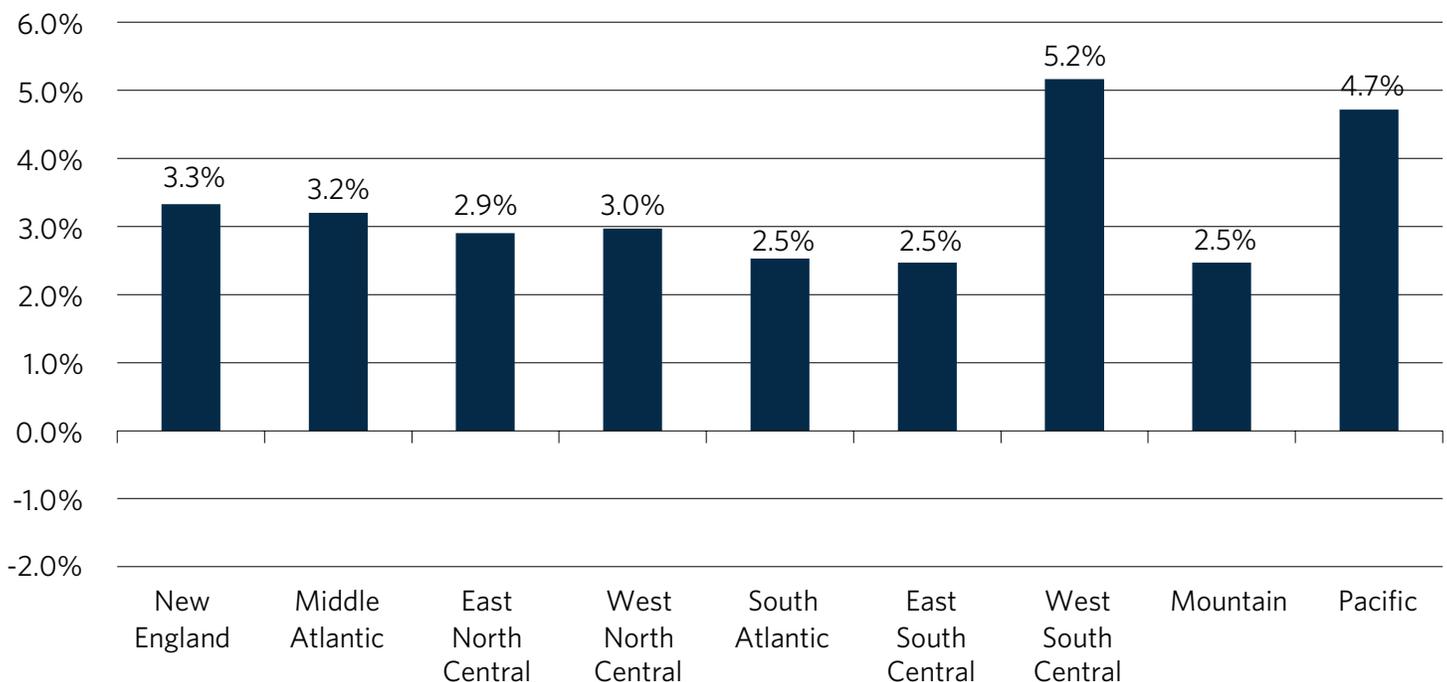
As shown in Figure 11, faculty salaries rose most strongly in the West South Central region, by 5.2 percent, and in the Pacific region, by 4.7 percent.

- An additional three regions showed increases at 3.0 percent or above: 3.3 percent in the New England region, 3.2 percent in the Middle Atlantic region and 3.0 percent in the West North Central region. Just behind the 3.0 percent level, salaries increased by 2.9 percent in the East North Central region.
- The remaining three regions each showed increases of 2.5 percent: South Atlantic, East South Central and Mountain.

As noted earlier, this is the first time since FY2015 that HEPI has compiled data on faculty salaries owing to changes in the way the AAUP calculated this data. We would observe that compared with FY2015, the rate of increase in faculty salaries in FY2018 exceeded that of FY2015 in eight of the nine regions. The Mountain region remained unchanged. The biggest difference in rate of increase between FY2015 and FY2018 was the West North Central region which yielded an increase of 3.2 percent.

**FIGURE 11**

### FY2018 FACULTY SALARIES BY REGION



Fringe benefits, analyzed in Figure 12, exhibited the greatest rate of change in the West South Central region, rising 3.7 percent. (This region also showed the sharpest rate of change in faculty salaries in FY2018, as noted earlier.)

- Close behind, with an increase of 3.6 percent, were fringe benefits in the West North Central region. After that, and the only other rate of change to top 3.0 percent, was a 3.4 percent increase in the Pacific region.
- The lowest rate of change, and the only negative data point, was a -0.7 percent decline in the Mountain region (which was also among the three regions showing the least change in faculty salaries).
- Also at the lower end of the scale, there was no change in the New England region and a 1.3 percent increase in the East South Central region.
- The South Atlantic region showed an increase of 2.9 percent, while the Middle Atlantic and East North Central regions showed changes of 2.5 percent and 2.6 percent, respectively.

**FIGURE 12**

**FY2018 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

components, 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 component 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

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As part of the calculation of HEPI, 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 51 years by \$23,202, evidencing an increase in real purchasing power. For public comprehensive institutions, salary increases in constant terms have been far more modest — just \$2,852 over the same period. For public two-year colleges they have increased by \$13,307 over the 51-year period.

Table F shows that at private colleges, salaries have kept ahead of inflation in absolute terms as well as relative to public institutions. Salaries at doctoral-level institutions have led the way with a real increase of \$66,502 over 51 years, while those at comprehensive schools have increased by \$27,702. Salaries at general baccalaureate institutions have increased by \$34,872 over the shorter 41-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. In constant dollar terms, average salaries for full professors at doctoral-level public institutions, for example, are currently \$138,377 while their counterparts at private institutions make \$190,365 – a gap of almost \$52,000. This gap, in real terms, was about \$8,700 in FY1967, indicating that professors at private doctoral-level institutions have benefited by an increase of more than \$43,000 in real purchasing power over the intervening decades.

At comprehensive institutions, the relative positions have actually reversed. In constant dollar terms in FY1967, full professors at public comprehensive institutions made over \$8,000 more than their counterparts at private institutions. By FY2018, however, this advantage had been reversed, with professors at private comprehensive institutions making almost \$25,000 more — a gain over 51 years in the range of \$17,000 in real terms.

TABLE E

### Higher Education Faculty Salaries in Current and Constant FY2018 Dollars\* Illustrative Data

*Public Faculty Salaries*  
Full professor average 9 - 10 month salaries by type of institution

| Fiscal year | Category I (Doctoral-Level) |          |                       | Category IIA (Comprehensive) |          |                       | Category III (Two-Year Colleges) |          |                       |
|-------------|-----------------------------|----------|-----------------------|------------------------------|----------|-----------------------|----------------------------------|----------|-----------------------|
|             | Amount                      | Yearly % | Constant FY18 dollars | Amount                       | Yearly % | Constant FY18 dollars | Amount                           | Yearly % | Constant FY18 dollars |
| 1967        | \$15,273                    | —        | \$115,175             | \$12,798                     | —        | \$96,511              | \$9,927                          | —        | \$74,861              |
| 1968        | \$16,160                    | 5.8%     | \$117,971             | \$13,747                     | 7.4%     | \$100,356             | \$10,659                         | 7.4%     | \$77,813              |
| 1969        | \$16,900                    | 4.6%     | \$117,678             | \$14,550                     | 5.8%     | \$101,314             | \$11,800                         | 10.7%    | \$82,165              |
| 1970        | \$17,750                    | 5.0%     | \$116,700             | \$15,400                     | 5.8%     | \$101,250             | \$12,950                         | 9.7%     | \$85,142              |
| 1971        | \$18,600                    | 4.8%     | \$116,209             | \$16,350                     | 6.2%     | \$102,152             | \$14,150                         | 9.3%     | \$88,407              |
| 1972        | \$19,678                    | 5.8%     | \$118,620             | \$17,313                     | 5.9%     | \$104,364             | \$15,217                         | 7.5%     | \$91,729              |
| 1973        | \$20,545                    | 4.4%     | \$119,179             | \$18,446                     | 6.5%     | \$107,003             | \$17,080                         | 12.2%    | \$99,079              |
| 1974        | \$21,400                    | 4.2%     | \$113,969             | \$19,600                     | 6.3%     | \$104,383             | \$18,100                         | 6.0%     | \$96,394              |
| 1975        | \$22,648                    | 5.8%     | \$108,508             | \$20,840                     | 6.3%     | \$99,846              | \$19,312                         | 6.7%     | \$92,525              |
| 1976        | \$24,277                    | 7.2%     | \$108,650             | \$22,067                     | 5.9%     | \$98,760              | \$20,254                         | 4.9%     | \$90,646              |
| 1977        | \$25,210                    | 3.8%     | \$106,625             | \$23,190                     | 5.1%     | \$98,081              | \$21,860                         | 7.9%     | \$92,456              |
| 1978        | \$26,420                    | 4.8%     | \$104,696             | \$24,290                     | 4.7%     | \$96,255              | \$23,240                         | 6.3%     | \$92,094              |
| 1979        | \$28,000                    | 6.0%     | \$101,466             | \$25,030                     | 3.0%     | \$90,704              | \$23,420                         | 0.8%     | \$84,869              |
| 1980        | \$30,120                    | 7.6%     | \$96,286              | \$27,200                     | 8.7%     | \$86,951              | \$25,190                         | 7.6%     | \$80,526              |
| 1981        | \$32,850                    | 9.1%     | \$94,156              | \$29,580                     | 8.8%     | \$84,784              | \$26,200                         | 4.0%     | \$75,096              |
| 1982        | \$35,680                    | 8.6%     | \$94,112              | \$31,700                     | 7.2%     | \$83,614              | \$27,720                         | 5.8%     | \$73,116              |
| 1983        | \$38,180                    | 7.0%     | \$96,520              | \$33,490                     | 5.6%     | \$84,664              | \$30,480                         | 10.0%    | \$77,054              |
| 1984        | \$39,770                    | 4.2%     | \$96,996              | \$34,560                     | 3.2%     | \$84,289              | \$31,510                         | 3.4%     | \$76,850              |
| 1985        | \$42,560                    | 7.0%     | \$99,891              | \$37,090                     | 7.3%     | \$87,053              | \$33,230                         | 5.5%     | \$77,993              |
| 1986        | \$45,560                    | 7.0%     | \$103,924             | \$39,720                     | 7.1%     | \$90,603              | \$34,870                         | 4.9%     | \$79,540              |
| 1987        | \$48,740                    | 7.0%     | \$108,752             | \$42,290                     | 6.5%     | \$94,360              | \$37,460                         | 7.4%     | \$83,583              |
| 1988        | \$51,080                    | 4.8%     | \$109,434             | \$46,060                     | 8.9%     | \$98,679              | \$38,230                         | 2.1%     | \$81,904              |
| 1989        | \$54,240                    | 6.2%     | \$111,029             | \$46,920                     | 1.9%     | \$96,045              | \$41,200                         | 7.8%     | \$84,336              |
| 1990        | \$57,520                    | 6.0%     | \$112,374             | \$49,610                     | 5.7%     | \$96,921              | \$43,000                         | 4.4%     | \$84,007              |
| 1991        | \$60,450                    | 5.1%     | \$112,038             | \$52,190                     | 5.2%     | \$96,729              | \$45,050                         | 4.8%     | \$83,495              |
| 1992        | \$61,950                    | 2.5%     | \$111,230             | \$53,750                     | 3.0%     | \$96,507              | \$47,700                         | 5.9%     | \$85,644              |
| 1993        | \$63,250                    | 2.1%     | \$110,123             | \$54,240                     | 0.9%     | \$94,436              | \$47,820                         | 0.3%     | \$83,258              |
| 1994        | \$64,860                    | 2.5%     | \$110,194             | \$55,690                     | 2.7%     | \$94,614              | \$49,120                         | 2.7%     | \$83,452              |
| 1995        | \$67,560                    | 4.2%     | \$111,484             | \$57,090                     | 2.5%     | \$94,207              | \$51,490                         | 4.8%     | \$84,966              |
| 1996        | \$69,750                    | 3.2%     | \$112,027             | \$58,520                     | 2.5%     | \$93,990              | \$51,560                         | 0.1%     | \$82,811              |
| 1997        | \$72,220                    | 3.5%     | \$112,770             | \$60,481                     | 3.4%     | \$94,440              | \$52,752                         | 2.3%     | \$82,371              |
| 1998        | \$75,154                    | 4.1%     | \$115,286             | \$61,839                     | 2.2%     | \$94,861              | \$53,024                         | 0.5%     | \$81,339              |
| 1999        | \$79,284                    | 5.5%     | \$119,590             | \$63,817                     | 3.2%     | \$96,260              | \$55,326                         | 4.3%     | \$83,452              |
| 2000        | \$82,535                    | 4.1%     | \$120,957             | \$66,657                     | 4.5%     | \$97,688              | \$57,089                         | 3.2%     | \$83,665              |
| 2001        | \$84,007                    | 1.8%     | \$119,043             | \$68,828                     | 3.3%     | \$97,533              | \$57,932                         | 1.5%     | \$82,093              |
| 2002        | \$89,631                    | 6.7%     | \$124,808             | \$72,770                     | 5.7%     | \$101,330             | \$60,997                         | 5.3%     | \$84,936              |
| 2003        | \$92,387                    | 3.1%     | \$125,879             | \$74,545                     | 2.4%     | \$101,569             | \$65,730                         | 7.8%     | \$89,558              |
| 2004        | \$94,606                    | 2.4%     | \$126,143             | \$74,872                     | 0.4%     | \$99,831              | \$64,439                         | -2.0%    | \$85,920              |
| 2005        | \$97,948                    | 3.5%     | \$126,784             | \$76,665                     | 2.4%     | \$99,235              | \$66,405                         | 3.1%     | \$85,955              |
| 2006        | \$101,620                   | 3.7%     | \$126,712             | \$78,884                     | 2.9%     | \$98,362              | \$66,011                         | -0.6%    | \$82,310              |
| 2007        | \$106,495                   | 4.8%     | \$129,443             | \$81,855                     | 3.8%     | \$99,493              | \$68,424                         | 3.7%     | \$83,168              |
| 2008        | \$111,807                   | 5.0%     | \$131,044             | \$85,642                     | 4.6%     | \$100,377             | \$71,936                         | 5.1%     | \$84,313              |
| 2009        | \$115,509                   | 3.3%     | \$133,519             | \$88,357                     | 3.2%     | \$102,133             | \$74,933                         | 4.2%     | \$86,616              |
| 2010        | \$116,750                   | 1.1%     | \$133,672             | \$89,648                     | 1.5%     | \$102,642             | \$74,103                         | -1.1%    | \$84,844              |
| 2011        | \$118,054                   | 1.1%     | \$132,492             | \$89,808                     | 0.2%     | \$100,792             | \$74,092                         | 0.0%     | \$83,153              |
| 2012        | \$120,955                   | 2.5%     | \$131,884             | \$88,940                     | -1.0%    | \$96,976              | \$73,534                         | -0.8%    | \$80,178              |
| 2013        | \$123,393                   | 2.0%     | \$132,339             | \$88,988                     | 0.1%     | \$95,440              | \$74,845                         | 1.8%     | \$80,272              |
| 2014        | \$126,981                   | 2.9%     | \$134,093             | \$90,517                     | 1.7%     | \$95,587              | \$77,671                         | 3.8%     | \$82,021              |
| 2015        | \$130,039                   | 2.4%     | \$136,330             | \$91,389                     | 1.0%     | \$95,810              | \$79,234                         | 2.0%     | \$83,067              |
| 2016        | **                          | **       | **                    | **                           | **       | **                    | **                               | **       | **                    |
| 2017        | \$135,148                   | **       | \$138,194             | \$97,055                     | **       | \$99,243              | \$84,767                         | **       | \$86,678              |
| 2018        | \$138,377                   | 2.4%     | \$138,377             | \$99,363                     | 2.4%     | \$99,363              | \$88,168                         | 4.0%     | \$88,168              |

Sources: FY1967 - FY1976, NCES; FY1977 - present, AAUP

\* Constant dollars based on inflation measured by the Consumer Price Index.

\*\* Due to changes in the methodology used by AAUP, there is a discontinuity with the past. This change resulted in figures that are inaccurate for FY2016.

The AAUP does not plan to restate these figures.

TABLE F

| Higher Education Faculty Salaries in Current and Constant FY2018 Dollars* |                             |          |                       |                              |          |                       |                                       |          |                       |
|---|-----------------------------|----------|-----------------------|------------------------------|----------|-----------------------|---------------------------------------|----------|-----------------------|
| Illustrative Data   |                             |          |                       |                              |          |                       |                                       |          |                       |
| Private Faculty Salaries  |                             |          |                       |                              |          |                       |                                       |          |                       |
| Full professor average 9 - 10 month salaries by type of institution       |                             |          |                       |                              |          |                       |                                       |          |                       |
| Fiscal year   | Category I (Doctoral-Level) |          |                       | Category IIA (Comprehensive) |          |                       | Category IIIB (General Baccalaureate) |          |                       |
|   | Amount                      | Yearly % | Constant FY18 dollars | Amount                       | Yearly % | Constant FY18 dollars | Amount                                | Yearly % | Constant FY18 dollars |
| 1967  | \$16,425                    | —        | \$123,863             | \$11,722                     | —        | \$88,397              |                                       |          |                       |
| 1968  | \$17,057                    | 3.8%     | \$124,520             | \$12,572                     | 7.3%     | \$91,778              |                                       |          |                       |
| 1969  | \$18,050                    | 5.8%     | \$125,685             | \$13,250                     | 5.4%     | \$92,262              |                                       |          |                       |
| 1970  | \$18,950                    | 5.0%     | \$124,590             | \$14,100                     | 6.4%     | \$92,702              |                                       |          |                       |
| 1971  | \$19,800                    | 4.5%     | \$123,707             | \$14,950                     | 6.0%     | \$93,405              |                                       |          |                       |
| 1972  | \$20,775                    | 4.9%     | \$125,233             | \$15,899                     | 6.3%     | \$95,840              |                                       |          |                       |
| 1973  | \$21,507                    | 3.5%     | \$124,759             | \$16,501                     | 3.8%     | \$95,720              |                                       |          |                       |
| 1974  | \$22,600                    | 5.1%     | \$120,360             | \$17,200                     | 4.2%     | \$91,601              |                                       |          |                       |
| 1975  | \$23,832                    | 5.5%     | \$114,180             | \$18,047                     | 4.9%     | \$86,464              |                                       |          |                       |
| 1976  | \$25,368                    | 6.4%     | \$113,533             | \$19,153                     | 6.1%     | \$85,718              |                                       |          |                       |
| 1977  | \$27,810                    | 9.6%     | \$117,621             | \$22,020                     | 15.0%    | \$93,133              | \$20,780                              |          | \$87,888              |
| 1978  | \$28,880                    | 3.8%     | \$114,444             | \$23,380                     | 6.2%     | \$92,649              | \$21,790                              | 4.9%     | \$86,348              |
| 1979  | \$31,090                    | 7.7%     | \$112,664             | \$24,830                     | 6.2%     | \$89,979              | \$23,230                              | 6.6%     | \$84,181              |
| 1980  | \$33,400                    | 7.4%     | \$106,771             | \$26,160                     | 5.4%     | \$83,627              | \$24,740                              | 6.5%     | \$79,087              |
| 1981  | \$36,000                    | 7.8%     | \$103,185             | \$28,710                     | 9.7%     | \$82,290              | \$27,030                              | 9.3%     | \$77,475              |
| 1982  | \$40,220                    | 11.7%    | \$106,087             | \$31,530                     | 9.8%     | \$83,166              | \$29,720                              | 10.0%    | \$78,392              |
| 1983  | \$43,950                    | 9.3%     | \$111,107             | \$33,750                     | 7.0%     | \$85,321              | \$32,410                              | 9.1%     | \$81,933              |
| 1984  | \$47,070                    | 7.1%     | \$114,800             | \$36,000                     | 6.7%     | \$87,801              | \$34,140                              | 5.3%     | \$83,264              |
| 1985  | \$49,880                    | 6.0%     | \$117,072             | \$37,980                     | 5.5%     | \$89,141              | \$36,500                              | 6.9%     | \$85,668              |
| 1986  | \$53,190                    | 6.6%     | \$121,328             | \$40,170                     | 5.8%     | \$91,629              | \$38,200                              | 4.7%     | \$87,136              |
| 1987  | \$56,900                    | 7.0%     | \$126,959             | \$42,680                     | 6.2%     | \$95,231              | \$40,460                              | 5.9%     | \$90,277              |
| 1988  | \$59,850                    | 5.2%     | \$128,223             | \$44,010                     | 3.1%     | \$94,287              | \$42,540                              | 5.1%     | \$91,138              |
| 1989  | \$64,290                    | 7.4%     | \$131,601             | \$47,010                     | 6.8%     | \$96,229              | \$44,770                              | 5.2%     | \$91,644              |
| 1990  | \$68,360                    | 6.3%     | \$133,552             | \$51,000                     | 8.5%     | \$99,636              | \$46,830                              | 4.6%     | \$91,490              |
| 1991  | \$72,950                    | 6.7%     | \$135,205             | \$52,820                     | 3.6%     | \$97,896              | \$49,610                              | 5.9%     | \$91,947              |
| 1992  | \$76,890                    | 5.4%     | \$138,054             | \$54,980                     | 4.1%     | \$98,715              | \$52,230                              | 5.3%     | \$93,778              |
| 1993  | \$80,280                    | 4.4%     | \$139,773             | \$57,060                     | 3.8%     | \$99,345              | \$54,620                              | 4.6%     | \$95,097              |
| 1994  | \$82,520                    | 2.8%     | \$140,197             | \$59,610                     | 4.5%     | \$101,274             | \$56,780                              | 4.0%     | \$96,466              |
| 1995  | \$84,790                    | 2.8%     | \$139,916             | \$60,830                     | 2.0%     | \$100,379             | \$58,040                              | 2.2%     | \$95,775              |
| 1996  | \$88,050                    | 3.8%     | \$141,419             | \$63,430                     | 4.3%     | \$101,876             | \$59,830                              | 3.1%     | \$96,094              |
| 1997  | \$92,112                    | 4.6%     | \$143,831             | \$64,468                     | 1.6%     | \$100,665             | \$62,047                              | 3.7%     | \$96,885              |
| 1998  | \$95,023                    | 3.2%     | \$145,765             | \$67,282                     | 4.4%     | \$103,211             | \$64,784                              | 4.4%     | \$99,379              |
| 1999  | \$98,606                    | 3.8%     | \$148,735             | \$69,509                     | 3.3%     | \$104,845             | \$67,180                              | 3.7%     | \$101,332             |
| 2000  | \$103,761                   | 5.2%     | \$152,064             | \$71,547                     | 2.9%     | \$104,854             | \$70,528                              | 5.0%     | \$103,361             |
| 2001  | \$107,633                   | 3.7%     | \$152,522             | \$75,143                     | 5.0%     | \$106,482             | \$74,031                              | 5.0%     | \$104,906             |
| 2002  | \$112,534                   | 4.6%     | \$156,700             | \$77,310                     | 2.9%     | \$107,652             | \$76,692                              | 3.6%     | \$106,791             |
| 2003  | \$118,269                   | 5.1%     | \$161,144             | \$80,011                     | 3.5%     | \$109,017             | \$79,928                              | 4.2%     | \$108,904             |
| 2004  | \$122,158                   | 3.3%     | \$162,880             | \$81,570                     | 1.9%     | \$108,762             | \$82,344                              | 3.0%     | \$109,794             |
| 2005  | \$127,214                   | 4.1%     | \$164,666             | \$83,986                     | 3.0%     | \$108,712             | \$85,575                              | 3.9%     | \$110,769             |
| 2006  | \$131,292                   | 3.2%     | \$163,710             | \$88,800                     | 5.7%     | \$110,726             | \$87,779                              | 2.6%     | \$109,453             |
| 2007  | \$136,689                   | 4.1%     | \$166,143             | \$91,197                     | 2.7%     | \$110,848             | \$90,353                              | 2.9%     | \$109,823             |
| 2008  | \$144,428                   | 5.7%     | \$169,277             | \$95,114                     | 4.3%     | \$111,479             | \$94,139                              | 4.2%     | \$110,336             |
| 2009  | \$151,403                   | 4.8%     | \$175,009             | \$99,555                     | 4.7%     | \$115,077             | \$98,808                              | 5.0%     | \$114,214             |
| 2010  | \$153,332                   | 1.3%     | \$175,556             | \$99,963                     | 0.4%     | \$114,452             | \$98,098                              | -0.7%    | \$112,316             |
| 2011  | \$157,282                   | 2.6%     | \$176,518             | \$101,290                    | 1.3%     | \$113,678             | \$99,976                              | 1.9%     | \$112,203             |
| 2012  | \$162,561                   | 3.4%     | \$177,249             | \$103,094                    | 1.8%     | \$112,409             | \$101,568                             | 1.6%     | \$110,745             |
| 2013  | \$167,118                   | 2.8%     | \$179,235             | \$104,186                    | 1.1%     | \$111,740             | \$104,335                             | 2.7%     | \$111,900             |
| 2014  | \$173,890                   | 4.1%     | \$183,629             | \$107,082                    | 2.8%     | \$113,080             | \$106,641                             | 2.2%     | \$112,614             |
| 2015  | \$177,600                   | 2.1%     | \$186,192             | \$106,859                    | -0.2%    | \$112,029             | \$108,741                             | 2.0%     | \$114,002             |
| 2016  | **                          | **       | **                    | **                           | **       | **                    | **                                    | **       | **                    |
| 2017  | \$184,591                   | **       | \$188,752             | \$113,623                    | **       | \$116,184             | \$121,168                             | **       | \$123,899             |
| 2018  | \$190,365                   | 3.1%     | \$190,365             | \$116,103                    | 2.2%     | \$116,103             | \$122,760                             | 1.3%     | \$122,760             |

Sources: FY1967 - FY1976, NCES; FY1977 - present, AAUP.

\* Constant dollars based on inflation measured by the Consumer Price Index.

\*\* Due to changes in the methodology used by AAUP, there is a discontinuity with the past. This change resulted in figures that are inaccurate for FY2016. The AAUP does not plan to restate these figures.

## End Notes

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Data for the eight HEPI components is gathered from the following sources:

- Faculty Salaries: American Association of University Professors Survey Report
- Administrative Salaries: College and University Professional Association for HR Survey, Professional Salaries – Medians
- Clerical: U.S. Bureau of Labor Statistics Employment Cost Index
- Service Employees: U.S. Bureau of Labor Statistics Employment Cost Index
- Fringe Benefits: American Association of University Professors Survey Report
- Miscellaneous Services: U.S. Bureau of Labor Statistics Employment Cost Index
- Supplies & Materials: U.S. Bureau of Labor Statistics Producer Price Index (17 selected components)
- Utilities: U.S. Bureau of Labor Statistics Producer Price Index (4 selected components)

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