

# HIGHER EDUCATION AT A CROSSROADS:

## THE ECONOMIC VALUE OF TENURE AND THE SECURITY OF THE PROFESSION

**L**ast year full-time continuing faculty experienced an inflation-adjusted increase in salary exceeding 2 percent for the first time since the Great Recession began more than seven years ago. This year, inflation-adjusted full-time continuing faculty salaries increased by 2.7 percent. Table A provides four decades of data on the percentage change in average salaries in both nominal (actual dollar) and real (inflation-adjusted) terms from one year to the next for all full-time continuing faculty whose institutions participated in the AAUP Faculty Compensation Survey.

Taken together, data from a variety of sources indicate a gradually improving economy, incremental increases in total state appropriations for higher education, and modest improvements in college and university endowments. These small gains do not appear to have translated into substantial decreases in average net price tuition or broad increases in student retention, according to 2015 data from the National Center for Education Statistics (NCES) Integrated Postsecondary Educational Data System (IPEDS). Troublingly, data from the College Board's *Trends in College Pricing 2015* indicate that, after adjusting for inflation, average net prices for tuition, fees, and room and board have increased approximately 28 percent since 2007–08 and have resulted in record levels of student debt.<sup>1</sup> Among undergraduates who took out student loans and graduated with a bachelor's degree, median student debt now exceeds \$30,000.<sup>2</sup>

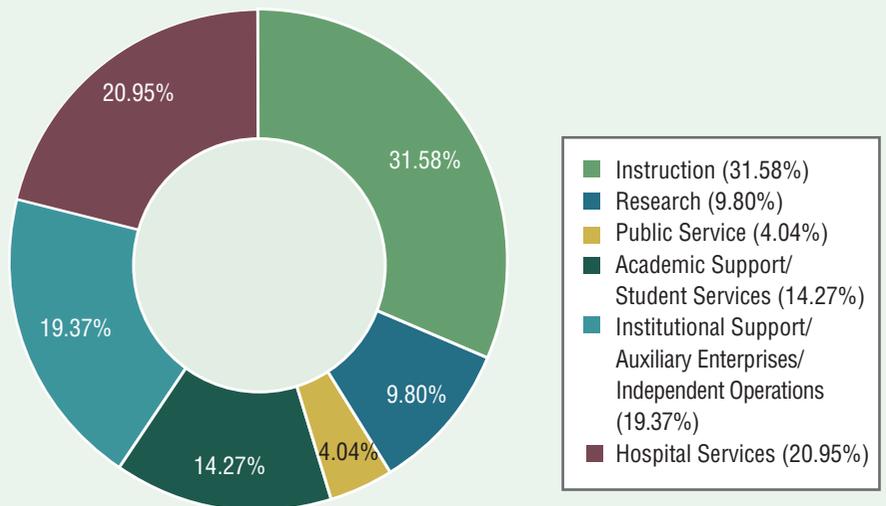
Higher education appears to be at a crossroads. Administrators and faculty members must decide whether they will travel down the familiar road, investing resources incrementally in short-term efforts to maintain the status quo, or take a road less traveled, reinvigorating academic units and institutions with longer-term strategies that produce measurable improvements in instructional quality.

Generally, strategies that facilitate such improvements rest on (1) clarity of institutional mission, (2) strategic use of services that support student success, and (3) a long-term commitment to full-time tenure-track faculty.

### Clarity of Institutional Mission

While the abstract goals articulated in mission statements are often laudable, superlatives alone do not make an institution great. Many of the leading institutions of higher education have achieved sustained excellence through a long-term commitment to growth in areas that align with their core mission. Rather than focus on a short-term “paradigm shift,” these leading institutions often resist the temptation to “reinvigorate the brand” or “realign” to the latest “disruptive innovation.” A focus on long-term sustainability allows them to minimize short-term distractions; departments and other academic units can grow and improve, and, over time, critical units that enhance instruction, student support, and research benefit from reinvestment. Alignment of spending with the institutional mission is crucial because, in the contemporary higher education environment, no

**FIGURE 1**  
**Breakdown of Expenditures at Two- and Four-Year Public Institutions, 2013–14**



Source: National Center for Education Statistics, IPEDS Data Center, <http://nces.ed.gov/ipeds/datacenter>. Data compiled by the AAUP Research Office for the Faculty Compensation Survey.

institution can excel in every area. Administrators and faculty members must decide where their institution will seek to excel.

The desire to adapt to changes and adopt new educational strategies exerts a strong pull on administrators and faculty members alike, since late adopters may be left far behind in the pursuit of excellence. However, resource allocation is often fraught with peril. Sometimes, in a desire to look better than their institutional peers, college and university leaders wind up in an arms race of spending that is not sustainable and can lead to financial instability.

Over the past half decade, many institutions have drifted away from their core missions, devoting smaller portions of their total budgets to instructional and research activities. As figure 1 indicates, among all public Title-IV-eligible, degree-granting institutions with first-time, full-time undergraduates, spending on instruction now makes up less than one-third (32 percent) of the budget, while spending on academic support and student services remains at 14 percent and spending on research has dropped below 10 percent.

### Strategic Use of Services That Support Student Success

As institutions recruit increasingly diverse student bodies that include many first-generation college students, academic support and student services become more critical. These services support instruction and research outside of the classroom in order to help students succeed inside the classroom. Students

**TABLE A**  
**Percentage Change in Average Nominal and Real Continuing Salaries for Institutions Reporting Comparable Data for Adjacent One-Year Periods, and Percentage Change in the Consumer Price Index, 1971–72 to 2015–16**

	Prof.	Assoc.	Asst.	Inst.	All Ranks	Prof.	Assoc.	Asst.	Inst.	All Ranks	Change in CPI-U
	NOMINAL TERMS					REAL TERMS					
<b>CONTINUING FACULTY</b>											
1971–72 to 1973–74	10.4	12.4	12.8	13.7	11.9	-2.1	-0.1	0.3	1.2	-0.6	12.5
1973–74 to 1975–76	14.2	15.7	16.5	17.9	15.6	-5.9	-4.4	-3.6	-2.2	-4.5	20.1
1975–76 to 1977–78	12.5	13.2	13.5	13.7	13.0	0.6	1.3	1.6	1.8	1.1	11.9
1977–78 to 1979–80	15.2	16.3	17.4	18.0	16.1	-8.3	-7.2	-6.1	-5.5	-7.4	23.5
1979–80 to 1981–82	19.9	21.0	22.4	22.3	20.9	-2.5	-1.4	0.0	-0.1	-1.5	22.4
1981–82 to 1983–84	13.3	13.9	15.3	14.7	14.1	5.5	6.1	7.5	6.9	6.3	7.8
1983–84 to 1985–86	14.2	15.1	16.3	16.1	14.9	6.3	7.2	8.4	8.2	7.0	7.9
1985–86 to 1987–88	12.8	13.7	14.6	13.8	13.5	7.2	8.1	9.0	8.2	7.9	5.6
1987–88 to 1989–90	13.7	15.0	16.0	15.5	14.6	4.4	5.7	6.7	6.2	5.3	9.3
1989–90 to 1991–92	10.2	11.6	12.5	12.5	11.2	0.8	2.2	3.1	3.1	1.8	9.4
1991–92 to 1993–94	7.1	8.3	9.1	9.1	8.0	1.4	2.6	3.4	3.4	2.3	5.7
1993–94 to 1995–96	8.0	9.0	9.6	9.5	8.8	2.7	3.7	4.3	4.2	3.5	5.3
1995–96 to 1996–97	3.0	4.0	4.2	4.6	3.5	-0.3	0.7	0.9	1.3	0.2	3.3
1996–97 to 1997–98	4.0	4.6	4.8	5.0	4.3	2.3	2.9	3.1	3.3	2.6	1.7
1997–98 to 1998–99	4.5	5.0	5.3	5.3	4.8	2.9	3.4	3.7	3.7	3.2	1.6
1998–99 to 1999–00	4.5	4.9	5.4	5.3	4.8	1.8	2.2	2.7	2.6	2.1	2.7
1999–00 to 2000–01	5.0	5.4	5.8	5.8	5.3	1.6	2.0	2.4	2.4	1.9	3.4
2000–01 to 2001–02	4.8	5.1	5.7	5.4	5.0	3.2	3.5	4.1	3.8	3.4	1.6
2001–02 to 2002–03	4.1	4.4	4.7	4.5	4.3	1.7	2.0	2.3	2.1	1.9	2.4
2002–03 to 2003–04	2.8	3.3	3.5	3.8	3.1	0.9	1.4	1.6	1.9	1.2	1.9
2003–04 to 2004–05	4.2	4.7	4.8	4.7	4.5	0.9	1.4	1.5	1.4	1.2	3.3
2004–05 to 2005–06	4.1	4.7	4.8	4.4	4.4	0.7	1.3	1.4	1.0	1.0	3.4
2005–06 to 2006–07	4.7	5.3	5.4	5.1	5.0	2.2	2.8	2.9	2.6	2.5	2.5
2006–07 to 2007–08	4.8	5.4	5.4	5.7	5.1	0.7	1.3	1.3	1.6	1.0	4.1
2007–08 to 2008–09	4.5	5.0	5.2	6.0	4.9	4.4	4.9	5.1	5.9	4.8	0.1
2008–09 to 2009–10	1.4	2.1	2.1	2.1	1.8	-1.3	-0.6	-0.6	-0.6	-0.9	2.7
2009–10 to 2010–11	2.2	2.7	2.8	2.3	2.5	0.7	1.2	1.3	0.8	1.0	1.5
2010–11 to 2011–12	2.7	3.1	3.3	3.2	2.9	-0.3	0.1	0.3	0.2	-0.1	3.0
2011–12 to 2012–13	2.9	3.4	3.5	3.6	3.2	1.2	1.7	1.8	1.9	1.5	1.7
2012–13 to 2013–14	3.0	3.5	3.7	3.6	3.4	1.5	2.0	2.2	2.1	1.9	1.5
2013–14 to 2014–15	3.2	3.7	3.8	3.8	3.7	2.4	2.9	3.0	3.0	2.9	0.8
2014–15 to 2015–16	2.9	3.7	3.8	4.3	3.4	2.2	3.0	3.1	3.6	2.7	0.7

*Note:* Salary increases for the years to 1995–96 are grouped in two-year intervals in order to present the full 1971–72 through current year series. Consumer Price Index for all Urban Consumers (CPI-U) from the US Bureau of Labor Statistics; change calculated from December to December. Nominal salary is measured in current dollars. The percentage increase in real terms is the percentage increase in nominal terms adjusted for the percentage change in the CPI-U. Figures for Continuing Faculty represent the average salary change for faculty on staff at the same institution in both years over which the salary change is calculated. Figures for prior years have been recalculated using a consistent level of precision.

who arrive on campus without the academic training and skills they will need to succeed can benefit greatly from such support, and institutions that invest in student services can save thousands of dollars in the long term and facilitate unit and institutional improvement. Recent research shows that colleges and universities that spend more on student services have better student outcomes. Moreover, students at those institutions may have more opportunities available to them in the labor market after graduation.<sup>3</sup>

One notable example of this return on investment is the Supplemental Instruction Program developed by the tenured faculty at the University of Missouri–Kansas City. Now in place on hundreds of campuses in the United States and around the world, this program uses peer-assisted study sessions, facilitated by students who have previously done well in a challenging course, to help current students succeed. Through supplemental instruction, students learn valuable skills such as effective note taking, discussion of readings, organizational skill development, and exercises that help them anticipate exam questions. In a major meta-analysis covering more than nine years, researchers found that student participation in supplemental instructional activities was positively correlated with higher mean grades, improved retention, and better graduation rates.<sup>4</sup> By retaining students and helping them graduate on time, institutions of higher education can generate substantial cost savings in recruitment and marketing, which can make possible the strategic deployment of additional resources in academic support and student services for future students.<sup>5</sup>

### ***Long-Term Commitment to Full-Time, Tenure-Track Faculty***

Ultimately, the success of academic support and student services depends on an institution's ability to attract and maintain a high-quality faculty. As historical and contemporary research can attest, institutions succeed when there is a climate that supports academic freedom, tenure, shared governance, and the long-term economic stability of the faculty.<sup>6</sup> Academic freedom, tenure, shared governance, and economic security are the four cornerstones of strategic planning and institutional effectiveness.

While faculty members generally recognize the central role of these principles in establishing the United States as the global leader in higher education, many policy makers and administrators do not. Recently, John Behling, the vice president of the University of Wisconsin system's board of regents, said that "tenure may be the standard in higher education, but it is out of step with reality"—hardly a reassuring statement. Behling's comment came on the heels of the removal of tenure protections from state law by Wisconsin legislators last year.

Some administrators at private institutions also seem reluctant to acknowledge the importance of tenure. When presidents of institutions belonging to the Council of Independent Colleges, a nonprofit organization consisting of

more than six hundred colleges and universities, met recently to chart a course for the future of their institutions, they compiled a list of characteristics that they deemed "essential" to their institutions and another list that identified "negotiable" characteristics. Although many presidents affirmed the value of tenure at their institutions, the draft document described tenure as "negotiable" rather than "essential."<sup>7</sup>

In January 2016, *Inside Higher Ed* reported on the findings of a national survey of chief academic officers conducted by Gallup. Just 38 percent of respondents said that they strongly believed that tenure remained important and viable at their institution. In that same survey, 75 percent of chief academic officers reported relying heavily on non-tenure-track faculty members for instruction. *Only 8 percent believed that they would be less reliant on non-tenure-track faculty in the future, while 27 percent believed that they would become more reliant on non-tenure-track faculty.*<sup>8</sup>

Trustees, administrators, policy makers, the public, media, and even some faculty members may argue that changing conditions necessitate increasing reliance on non-tenure-track faculty. Available research shows that this is rarely the case, however. Far more often, financial data are presented to justify a dramatic reduction of tenured faculty lines without consideration of other equally or more compelling data that would argue against such a decision.

This report will explore the social and economic benefits of the tenure system and advocate for its continued existence not only because it promotes academic freedom and economic security but also because it can improve student success, sustain academic excellence, and advance the national interest in instructional and research innovation. Our aim is a pragmatic one: to offer tangible examples of how tenure, by improving student retention and achievement and facilitating research breakthroughs, benefits institutions and communities and serves the national interest. By focusing on the conversion of part-time to full-time positions, we hope to suggest practical ways that units and institutions can save money to offset investment in the faculty. Through conversion, part-time appointments with low pay and little job security can be transformed into something better: positions with full-time salaries and benefits. While conversion to the tenure track is preferable, we have also estimated the costs of an interim step, converting part-time non-tenure-track positions to full-time non-tenure-track positions. Finally, it is our hope that faculty exercise due diligence in working with administrators and staff to improve their institutions and better align institutional mission with excellence in education.

If the United States is to retain its global advantage in instructional and research innovation over the next decade, US institutions of higher education will need a stable academic labor force that can commit to excellence—and the best way to achieve this is through the conversion of contingent appointments to tenure-eligible positions. The process of conversion

## TENURE: MYTH VERSUS REALITY

Tenure and academic freedom are often misunderstood and misrepresented. Two of the most common misperceptions are that tenure guarantees the right to a job for life and that academic freedom gives faculty members the right to say whatever they wish and to do whatever they want.

Academic tenure, however, differs from “life tenure” appointments, such as the tenure granted to confirmed federal judges. The AAUP’s joint 1940 *Statement of Principles on Academic Freedom and Tenure* does allow for the dismissal of tenured faculty members for “adequate cause,” as long as the dismissal is preceded by an adjudicative hearing before a faculty body, with the administration having to demonstrate adequate cause. In the words of William Van Alstyne, a former chair of the AAUP’s Committee A on Academic Freedom and Tenure, “tenure is translatable as a statement of formal assurance that . . . the individual’s professional security and academic freedom will not be placed in question without the observance of *full academic due process*.”

Contrary to popular perceptions, academic freedom does not mean that faculty members have the right to say or do whatever

they wish. The 1940 *Statement* emphasizes that faculty members must have “full freedom in research and in the publication of the results” as well as “freedom in the classroom in discussing their subject,” but it also cautions that “they should be careful not to introduce into their teaching controversial matter which has no relation to their subject.” (As the 1970 Interpretive Comments make clear, “the intent of this statement is not to discourage what is ‘controversial’” but rather “to underscore the need for teachers to avoid persistently intruding material which has no relation to their subject.”) In addition, membership in the academic profession entails certain responsibilities, such as those enumerated in the AAUP’s *Statement on Professional Ethics*, that may not be compatible with doing and saying whatever one wishes.

Since 1940, more than 240 professional associations and higher education organizations have endorsed the *Statement*, and its principles have been widely incorporated into institutional policies. The result has been the establishment of common definitions of academic freedom and tenure.

will not be easy, and painful decisions likely lie ahead for many institutions. However, if history is any guide, those institutions willing to commit to academic freedom, tenure, shared governance, and the economic security of the faculty will most likely be those that excel over the next decade and beyond.

## CHANGING ACADEMIC LABOR FORCE

The tenure system protects academic freedom, facilitates shared governance, spurs pedagogical and research innovation, and bolsters student learning and retention rates. According to one former provost, Sol Gittleman, it “made American universities the best in the world.”<sup>9</sup>

Since the mid-1970s, higher education has come to rely increasingly on contingent faculty—those serving in non-tenure-track positions, often classified as part time. This trend has profoundly affected the structure of the academic labor force as well as the quality of higher education. IPEDS data indicate that less than one-third of faculty members are now either tenured or on the tenure track. Tenured faculty (generally full or associate professors) make up approximately 21 percent of the academic labor force, while tenure-track faculty (assistant professors) make up just over 8 percent.

Figure 2 attempts to place these numbers in historical perspective. Over the past forty years, the proportion of the academic labor force holding full-time tenured positions has declined by 26 percent and the share holding full-time tenure-track positions has declined by an astonishing 50 percent. Conversely, there has been a 62 percent increase in full-time non-tenure-track faculty appointments and a 70 percent

increase in part-time instructional faculty appointments. The majority (70 percent) of academic positions today are not only off the tenure track but also part time, with part-time instructional staff positions making up nearly 41 percent of the academic labor force and graduate teaching assistants making up almost another 13 percent (part-time tenure-track positions make up about 1 percent of the academic labor force).

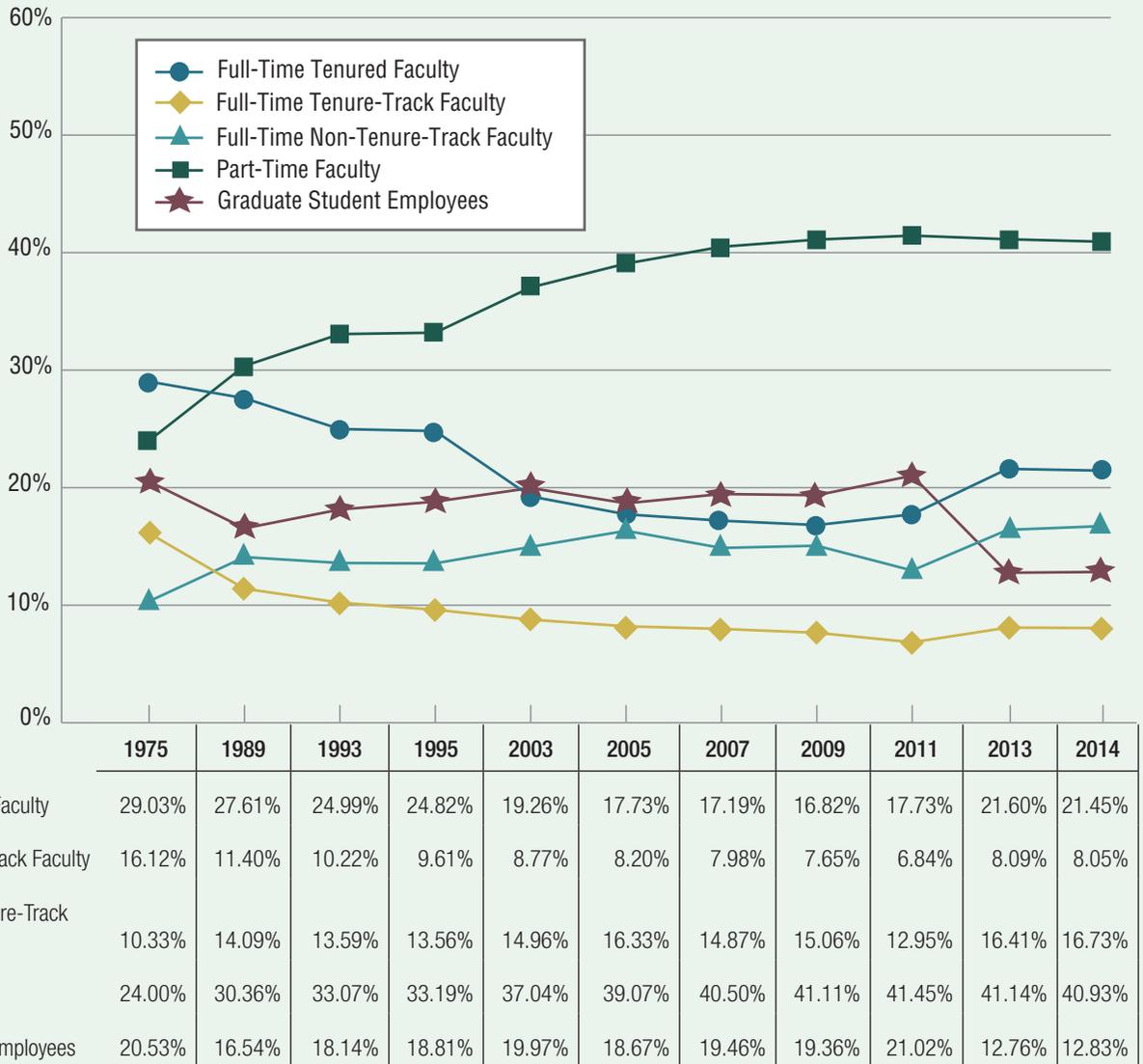
The changes in the academic labor force have been uneven. Research has found that private institutions, on average, have higher levels of part-time faculty than their public counterparts, as do institutions located in large urban or suburban areas.<sup>10</sup> Institutions with a higher proportion of part-time students have more part-time faculty members, and differences in faculty employment across institutions are related to the portfolio of academic programs.<sup>11</sup>

## IMPACT OF THE GROWTH IN PART-TIME FACULTY POSITIONS

In an effort to better understand the rising number of part-time faculty appointments and assess their impact on higher education, the AAUP Research Office began collecting data on part-time faculty compensation in this year’s Faculty Compensation Survey. While these data have limitations, as the preceding article explains, this year’s survey is among the first efforts to benchmark data on part-time faculty pay and make aggregate data publicly available.

Survey report table 8 indicates that this year, the average part-time faculty member earned \$16,718 from a single employer. In addition to variation at the institutional level, part-time faculty salaries varied by institutional category, with

FIGURE 2  
Trends in Academic Labor Force, 1975–2014



Source: National Center for Education Statistics, IPEDS Data Center, <http://nces.ed.gov/ipeds/datacenter>. Data compiled by the AAUP Research Office.

part-time faculty at doctoral institutions earning \$26,321, those at master’s institutions earning \$14,272, those at baccalaureate institutions earning \$14,849, those at associate’s colleges with ranks earning \$15,056, and those at associate’s colleges without ranks earning \$9,803.

The decision to reduce the proportion of full-time tenured and tenure-track faculty has profoundly affected higher education. As the AAUP noted in its 2003 statement *Contingent Appointments and the Academic Profession*, the dramatic

increase in part-time faculty has created “systemic problems for higher education” that have weakened faculty governance, imperiled academic freedom, and diminished student learning. While many faculty members serving in part-time positions are well qualified and make extraordinary efforts to overcome their circumstances, researchers have found that having a part-time instructor decreases the likelihood that a student will take subsequent classes in a subject and that instruction by part-time faculty is negatively associated with retention and

graduation. Specifically, every 10 percent increase in part-time faculty positions at public institutions is associated with a 2.65 percent decline in the institution's graduation rate, and every 10 percent increase in full-time non-tenure-track faculty positions is associated with a 2.22 percent decline.<sup>12</sup>

These effects are likely related to the working conditions of faculty in part-time positions. In an effort to piece together enough low-wage courses to make a living, many "part-time" faculty members, paradoxically, teach more courses each semester than full-time faculty. Moreover, faculty in part-time positions tend to be less integrated into their institutions and have fewer resources available. The nature of their work sometimes requires commuting between several campuses, and they often are assigned to crowded group offices—or have no office at all. As a result, part-time faculty may be less accessible to students.

These inadequately supported faculty members are disproportionately assigned to introductory or "gateway" courses that have students who need the most assistance. Such students sometimes need basic instruction in grammar and composition, which requires the kind of intensive, hands-on teaching that is difficult for a part-time faculty member with full-time teaching hours and insufficient support to provide. Evidence suggests that faculty in full-time tenured or tenure-track positions may be better prepared to provide high-quality instruction in these introductory courses, which are crucial for student retention, achievement, and degree completion. Analysis of data collected by the National Survey of Postsecondary Faculty showed that full-time faculty generally spend 50 to 100 percent more time per credit hour on instruction, in and out of the classroom, than do part-time faculty.<sup>13</sup>

Although much has been written about the value of tenure as a protector of academic freedom, less is known about the economic value tenure provides to society, institutions of higher education, and students. Recent research has shown that four-year institutions that spend \$2,000 more on instruction and \$400 more on student services per full-time student are likely to have higher graduation rates.<sup>14</sup> Using a nationally representative dataset, researchers found that instructional spending has the highest return for disadvantaged students. Spending on instruction is also positively correlated with the probability of full-time employment, job match, and salary after graduation, particularly for more disadvantaged students.

*Simply put, if the public and policy makers are concerned about student retention, graduation rates, and job placement after college, they must spend additional money on instruction and student support.* A stable tenured and tenure-track faculty with access to professional development and resources is one of the best tools to improve quality for all students, and particularly for low-income students.

The growth in part-time faculty appointments has also increased the pressures on full-time tenured and tenure-track faculty. Fewer full-time faculty are available to serve on

committees and take on departmental responsibilities, for example. The demands of such service work may reduce the time faculty have to spend mentoring students outside of the classroom.

Contingent appointments place social and psychological burdens on faculty as well. As Tiffany Kraft, an adjunct faculty member at Marylhurst University, told the *American Prospect* magazine: "I don't think people understand how oppressive it is to work without job security, to work on a terminal, sometimes ten-week basis, without knowing you'll be employed. . . . It wears on you psychologically, physically. . . . Not only are you underpaid, there's absolutely no respect. Over time, that hurts. It just hurts."<sup>15</sup> A substantial number of non-tenure-track faculty members report feelings of stress, anxiety, and depression associated with their position, according to recent research by psychologists Gretchen Reevy and Grace Deason.<sup>16</sup>

As the AAUP's 2010 report *Tenure and Teaching-Intensive Appointments* notes, many contingent faculty members face extremely difficult working conditions: "Faculty on contingent appointments frequently pay for their own computers, phones, and office supplies, and dip into their own wallets for journal subscriptions and travel to conferences to stay current in their fields, while struggling to preserve academic freedom. However heroic, these individual acts are no substitute for professional working conditions."

In the AAUP's view, there is one faculty serving in a variety of appointment types. The voices of non-tenure-track faculty members are as central to higher education today as the voices of their tenure-track and tenured colleagues. We recognize the incredible efforts undertaken each day by part-time faculty members to deliver the best possible instruction with what few resources may be at their disposal at the time. The research presented in this report should not be construed as a critique of the work of part-time faculty. Rather, our aim is, first, to explain why reliance on part-time faculty is not a viable long-term solution for higher education if the United States is to remain a global leader in education and research and, second, to outline alternatives to a permanent underclass of part-time faculty. Institutions should work to rebuild the ranks of full-time tenured and tenure-track faculty not just for economic reasons but also because the protections of tenure provide the academic freedom to take risks and to innovate, which lead to breakthroughs in the classroom and beyond.

#### **FULL- AND PART-TIME FACULTY SURVEY**

Earlier this year, the AAUP Research Office conducted a survey to explore whether a faculty member's status as full- or part-time affected instructional or research activity. In this survey, we compared faculty employed on part-time contracts with faculty employed in full-time positions, regardless of whether the positions were tenure track. Almost all of the part-time respondents were in non-tenure-track positions; full-time respondents were

**TABLE B**  
**Effect of Part- or Full-Time Appointment on Instructional and Research Activities**

Statement: “My appointment type has influenced the way I . . . ”	Part-Time (% Agree)	Full-Time (% Agree)
<b>Instructional Activities</b>		
Experiment with teaching methods**	56	66
Experiment with course content (course readings, assignments, etc.)**	57	67
Teach content that might challenge students' understanding of the social world*	40	48
Provide critical feedback on students' graded coursework	51	54
Provide critical feedback to students in the classroom	49	55
Assign course grades	46	47
<b>Research Activities</b>		
Select research topics to study***	41	56
Present research at professional conferences***	46	58
Publish scholarly research (articles, book chapters, manuscripts, etc.)***	45	65

*Note:* P-Value = \*\*\* <.001, \*\* .01, \* .05  
*Source:* AAUP Research Office.

a mix of tenure-track and non-tenure-track faculty. Responses were weighted based on institutional control (public, private nonprofit, or private for-profit). Data presented are from a nationally representative analytic sample of 2,224 full- and part-time faculty members.

To explore whether one’s contractual appointment had an influence on instructional or research activity, we asked a series of questions about specific activities related to instruction and research. Table B presents the items and the percentage of respondents who agreed with each statement.<sup>17</sup>

We found that whether a faculty member is appointed on a part- or full-time basis affects nearly all aspects of work, including instruction, research, involvement in departmental governance, extramural activities, and perceptions of administrators or their institution. As table B indicates, full-time faculty are more likely than their part-time colleagues to experiment with teaching methods (66 to 56 percent), to experiment with course content (67 to 57 percent), and to teach content that might challenge students’ understanding of their social world (48 to 40 percent). The willingness to innovate in the classroom and challenge students with diverse perspectives and difficult content is a crucial component of high-quality instruction. Without the job security that comes with tenure-line appointments and, to a lesser degree, with full-time non-tenure-track appointments, faculty members may hesitate to challenge students by criticizing or calling into question commonly accepted ideas.

Innovation and high-quality research also depend on secure, stable appointments. Major scientific breakthroughs

often take years or decades to be translated to a specific product or service. In our survey, we found that full-time faculty were more likely than part-time faculty to select research topics to study (56 to 41 percent), present papers at professional conferences (58 to 46 percent), and publish scholarly research (65 to 45 percent). These findings do not necessarily indicate that part-time faculty do not have the capacity to conduct such research; rather, the results likely show that they do not have the time or resources needed to do so.

Research serves unit, institutional, and national interests. Few corporations are willing to underwrite the level of sustained research needed to produce the scientific breakthroughs that make the United States a global leader in publications, patents, and even pedagogical innovations.

A key component of research is the willingness to take risk—sometimes by pursuing topics that may be unpopular, sometimes by investing in projects and experiments that may not yield useful results or may take years to complete. Table C presents findings based on a series of statements with which faculty in part- and full-time appointments were asked to indicate their agreement or disagreement. We found that full-time faculty are willing to take greater risks when the results might take a long time to collect (57 to 27 percent) and analyze (55 to 25 percent) and that they are more likely to conduct research when the findings will not be published (52 to 39 percent).

#### **ECONOMIC VALUE OF TENURE**

Conventional wisdom has long held that tenure inhibits innovation and leads to lower-risk, higher-reward research that can

TABLE C  
**Effect of Part- or Full-Time Appointment on Willingness to Take Risk and Perceptions of Institutional Support**

Statement	Part-Time (% Agree)	Full-Time (% Agree)
<b>Willingness to Take Risk</b>		
I have undertaken research with a greater risk knowing that the results might take a long time to collect***	27	57
I have undertaken research with a greater risk knowing that the results might take a long time to analyze***	25	55
I have undertaken research with a greater risk knowing that the findings might not be published***	39	52
<b>Perceptions of Institutional Support</b>		
My institution supports academic freedom***	46	67
My chief academic officer (provost, chancellor, etc.) supports academic freedom***	39	57
My institution supports the principles of shared governance*	31	39
My institution supports the economic security of faculty***	10	30
My institution has a plan to convert part-time faculty to full-time faculty*	3	7

Note: P-Value = \*\*\* <.001, \*\* .01, \* .05  
 Source: AAUP Research Office.

easily translate to presentations and publications. Recent studies, however, suggest that tenure makes faculty more willing to take on risk and less likely to stick to the well-trodden paths that lead to easy presentations and publications. A 2015 study of more than 6 million abstracts from medicine and chemistry conducted by sociologists Jacob Foster, Andrey Rzhetsky, and James Evans offered strong quantitative evidence that tenure can provide a faculty member the safety to take on innovative projects without having to worry about the potentially career-threatening consequences of failing to produce discernible or immediately publishable results.<sup>18</sup> Specifically, they found that innovative research is more likely to have a high impact than conservative research, but the additional reward does not compensate for the risk of failing to publish. By studying prize-winning scholars in biomedicine and chemistry, Foster and his colleagues were able to demonstrate how occasional gambles can have an extraordinary impact on science, technology, and society.

In preparing this year's *Annual Report on the Economic Status of the Profession*, the AAUP Research Office interviewed a number of prominent scholars to gather more information about how tenure might have emboldened them to take pedagogical and research risks, which, in turn, improved their institutions, their communities, and US society.

One tenured faculty member who undertook innovative research that at the time was perceived as risky is Paul Modrich. A professor of biochemistry at Duke University, Modrich studies DNA mismatch repair, a mutation avoidance system that stabilizes the genome by correcting errors in DNA sequences. When Modrich began this line of research, there was biological evidence to support the existence of DNA

mismatch repair, but the process was not understood. His research at the time was a "substantial risk" because it would be time-intensive and might not lead to any presentations or publications.

Modrich's research on DNA mismatch repair enabled him and his colleagues to isolate the cause of approximately 20 percent of all forms of colon cancer, saving thousands of lives. When we spoke with Modrich, he told us that he was inspired to conduct "curiosity-based research" and to pursue interesting questions, even if they are risky, because "you never know where it is going to lead." His research led to the 2015 Nobel Prize in chemistry.

Tenure does not simply empower faculty in the laboratory to take risks. It also enables them to take risks in finding new approaches to better educate their students. Earlier this year, we spoke with Glenn Platt, a professor of marketing at Miami University in Ohio. Platt helped develop the "inverted classroom," or, as it is better known today, the "flipped classroom." A flipped classroom is a pedagogical innovation in which lecture and coursework elements are reversed. Historically, faculty members have lectured to students in the classroom and then assigned coursework outside of the classroom. In a flipped classroom, short video lectures are recorded by the faculty for students to watch outside of the classroom and in-class time is dedicated to exercises, projects, discussions, or other activities.

When Platt and his colleagues began experimenting with the flipped classroom, they were searching for a way to engage students in order to boost retention, improve achievement, and, ultimately, attract larger numbers of majors as well as

**TABLE D**  
**Costs of Converting Part-Time to Full-Time Positions, Three Selected Institutions and National Average**

Institution	No. of Part-Time Faculty	% of Faculty in Part-Time Positions	Benefits as % of Total Expenditure	Cost of Each Conversion to Assistant Professorship	Cost of 100% Conversion to Assistant Professorship as % of Total Expenditure	Cost of 50% Conversion to Assistant Professorship as % of Total Expenditure
Ohio State University—Main Campus	1,144	34.61%	26.0%	\$107,325	2.51%	1.26%
Saint Leo University	1,129	87.25%	16.7%	\$70,487	52.05%	26.05%
SUNY-Oswego	228	40.07%	35.3%	\$78,745	10.19%	5.09%
National Average	267	47.19%	31.2%	\$85,389	16.93%	8.46%

*Note:* The costs of converting part-time positions to either full-time instructional or full-time tenure-track positions is based on the most recent data from NCES IPEDS on the total number of part-time instructional faculty and the average reported salary. Benefits costs are based on national estimates and institutional submissions for the corresponding year of the Faculty Compensation Survey. Institution expenditure calculations are based on the total of major expenditure categories reported in NCES IPEDS data for the corresponding year. Estimates of “total costs” should be used with caution in the absence of more detailed financial data.

*Source:* AAUP Research Office.

more diverse students to business and economics. Platt recalls that this innovative approach was not well received by his colleagues. They would chide him for “watering down economics” or “teaching kindergarten classes,” and they derided the flipped classroom as “a scam to get out of lecturing.” However, Platt and his colleagues found that students in flipped classrooms reported being significantly more engaged in learning, and undecided students in such classrooms were twice as likely to declare economics as a major as those in the traditional lecture-based classes. Most impressive, in Platt’s view, was the increase in female economics majors. Platt notes that if he were a part-time faculty member, he probably would not have been able to take the risk necessary to make the flipped classroom a success.

Tenure also provides the opportunity for faculty to conduct research that may yield tremendous social and economic value for society. Such research can be particularly risky for faculty members, for its benefits are sometimes not fully manifest for years or even decades. Indeed, one critique of the tenure system—frequently leveled at public institutions receiving state appropriations—is that it enables faculty members to study meaningless and esoteric topics that have little practical value for society.

Joel Cohen, a tenured professor at Columbia University, studies “hypsographic demography,” or how human populations are distributed with respect to altitude—a topic that may seem to have few practical applications. Working with his colleague Christopher Small, Cohen was able to generate realistic projections for the distribution of nearly the entire human population. The research has proven to have practical value for a variety of industries. Frito-Lay contacted Cohen and Small about

follow-up research to determine the freshness of snack foods in high-altitude areas. Intel became interested in the research after finding that its microchips heat up more rapidly at higher altitude. Soap manufacturer Procter and Gamble was interested in how altitude affects soap bubbles. This line of research has also created life-saving breakthroughs. For example, it has informed studies of hereditary paraganglioma, a rare form of cancer that is more likely to form in humans living at high altitudes.

When we spoke with Cohen, he admitted that he couldn’t have possibly anticipated the practical implications of his research when he first began it. Reflecting back on his breakthroughs, he acknowledged that it took him nearly “nine years to write his first book” and that without tenure, the research he did on hypsographic demography “would be very tough” to conduct.

Tenure-track and tenured faculty around the country are developing a great variety of other pedagogical and research innovations. The digital edition of this report, available at <http://www.aaup.org/ares>, includes additional brief sketches of research undertaken by tenured faculty members.

#### **COST OF CONVERSION**

The decline of the tenure system, caused largely by shifting administrative and institutional priorities, was worsened by the recent recession. To be sure, the majority of US institutions of higher education are facing unprecedented challenges. However, in order to thrive over the next decade and beyond, institutions must rededicate themselves to the core educational mission. As the AAUP’s 2010 statement *Tenure and Teaching-Intensive Appointments* noted, “A new consensus is emerging that it is time to stabilize the crumbling faculty infrastructure.”

Cost of Each Conversion to Full-Time Instructorship	Cost of 100% Conversion to Full-Time Instructorship as % of Total Expenditure	Cost of 50% Conversion to Full-Time Instructorship as % of Total Expenditure
\$43,954	1.03%	0.51%
\$69,572	51.38%	25.71%
\$64,502	8.34%	4.17%
\$60,405	9.13%	4.56%

At campuses across the country, different methods of improving the current situation have been devised by administrators and legislators, proposed by AAUP chapters or faculty senates, or negotiated by faculty unions. Some of these efforts focus on consolidating part-time appointments into full-time non-tenure-track appointments. Others focus on winning employment security for contingent faculty members in full- or part-time positions through such mechanisms as longer appointment terms, the expectation or right of continuing employment, provisions for orderly layoff, and other rights of seniority. Still others focus on securing an economically sustainable salary with benefits for contingent faculty. These efforts are laudable and necessary. (AAUP members can find more information on negotiating improvements for faculty in contingent appointments at <http://www.aaup.org/onefaculty>.)

However, as contingent faculty fight for and win greater employment security, often through unionization, it is becoming clear that improved employment security alone is not an adequate substitute for tenure. As the 2010 statement noted, “A potentially crippling development in these arrangements is that many—while improving on the entirely insecure positions they replace—offer limited conceptions of academic citizenship and service, few protections for academic freedom, and little opportunity for professional growth. These arrangements commonly involve minimal professional peer scrutiny in hiring, evaluation, and promotion.” Thus, the AAUP believes that the best way to stabilize the faculty infrastructure is through the conversion of contingent positions to tenure-line positions.

Full-time positions can be contingent or on the tenure track, and part-time positions can be contingent or on the tenure

track. Part-time positions can be compensated on the same scale as full-time positions or (as is usually the case) on a different scale. For some departments and faculty members, part-time positions make sense, and in these cases we recommend as best practice fractional positions, including fully proportional pay, that are eligible for tenure and benefits, with proportional expectations for service and professional development.

In what follows, we address one common situation: the existence at an institution of part-time non-tenure-track positions that could usefully be converted into full-time positions. We look at the cost for an institution of converting such part-time positions either to full-time assistant professorships (generally a tenure-track position) or, as an interim step, to full-time instructorships (generally a non-tenure-track position). While it is certainly possible to grant tenure status without changing faculty salaries, and some faculty activists have proposed exactly that, we focus here on the cost of raising the compensation of faculty in converted positions to the institutional average for that position.

To do this, we must make some assumptions. Faculty salaries vary by discipline, and as the Faculty Compensation Survey demonstrates in survey report table 1, salary differences between full-time tenure-track assistant professors and full-time instructors exist even at the institutional level. It is reasonable to assume that if part-time faculty are teaching one, two, or even three courses, an institution might not need every one of them in full-time positions to meet current enrollment demand. As we have consistently recommended, any conversion plan that involves consolidating the number of positions must be carried out carefully and over a time period that allows numbers to be reduced through attrition rather than by terminating the appointments of current faculty members. Faculty benefits also have a cost. Fortunately, benefits data are available for many institutions through the AAUP Faculty Compensation Survey. If we know the number of part-time instructional faculty, the average salaries for assistant professors and full-time instructors, and the average percentage cost of benefits, we can make a reasonable estimate of total compensation. Additionally, IPEDS can provide data on the total expenditures for major faculty categories.

Table D presents selected cost estimates for the conversion of part-time positions to either full-time instructor or full-time assistant professor positions, and the examples that follow illustrate how such conversions might look at Title-IV-eligible, degree-granting institutions that have first-time, full-time undergraduates.

Nationally, the average estimated enrollment per US institution is 4,686 students. Approximately 47 percent of faculty, or 267 faculty members on average per institution, are employed in part-time positions. At an average cost of conversion of \$85,389 per part-time faculty member, the cost of converting all part-time faculty members to tenure-track assistant professors would represent 16.93 percent of US higher education

expenditure, and the cost of converting half would represent 8.46 percent of expenditures. Conversion to full-time instructors would cost the average institution 9.13 percent of total expenditures, and conversion of half would cost 4.56 percent of total expenditures. Some caution should be used in generalizing from these averages, and there is substantial variation from one institution to another. For example, some institutions employ very few part-time faculty members, and at such institutions faculty might serve by choice or for legitimate pedagogical reasons in part-time positions. At other institutions, most of the faculty are in part-time positions and both the institution and faculty members would benefit from the conversion of many to stable, full-time positions.

In what follows, we give some examples to illustrate how a conversion plan could work at different institutions.

Ohio State University is a major public research-intensive institution with more than fifty-eight thousand students. With over 1,100 part-time faculty members, approximately 34 percent of the faculty at Ohio State are in part-time positions. Converting the part-time faculty positions to assistant professorships would cost, on average, \$107,325 per faculty member. The total cost of conversion would represent 2.51 percent of the overall operating budget by major expenditure categories. If only half were converted, either as an interim measure or because fewer faculty positions would be needed if all were full time, the cost would be 1.26 percent of the total budget. Conversion of all part-time faculty to full-time instructor positions, at \$43,954 per faculty member, would cost 1.03 percent of the total budget, while conversion of half would cost 0.51 percent.

Saint Leo University is a private nonprofit institution with a large online presence and approximately sixteen thousand students. Its 1,129 part-time faculty members make up approximately 87 percent of the total faculty. With an average cost of \$70,487 to convert each part-time faculty member to an assistant professor with benefits, the cost of full conversion would amount to 52 percent of the total expenditures. Converting half of the faculty to assistant professorships would cost approximately 26 percent of the total expenditures. To convert all part-time faculty to full-time instructors would cost approximately 51 percent of total expenditures.

The State University of New York College at Oswego is a regional public institution with a large master's program that serves approximately eight thousand students. Its 228 part-time faculty members represent approximately 40 percent of the total faculty. At a cost of \$78,745 per assistant professor, it would cost approximately 10 percent of total expenditures to convert all part-time faculty members to full-time tenure-track positions and 5 percent to convert half. Converting part-time faculty to full-time instructors would cost approximately 8 percent.

Three points must be noted. First, the above-cited costs of conversion represent the total cost in a single year. If a typical institution adopted a long-term strategy or plan for converting

half of its part-time faculty to full-time status, it could do so at a cost of as little as an additional 2 percent per year each year. Second, our estimates assume that there are no additional costs to human resources and no efficiency gains from having more faculty covered in defined-benefit plans. It is unlikely that both would be net zero, but in the absence of reliable data on both, this is a limitation of our projections. Third, there is a great deal of variation in the use of part-time faculty from one institution to the next. For many institutions, the cost of conversion would be a minor investment in a single year or over a period of years. For others, the cost would be more significant. That does not mean that conversion is impossible: slow, steady progress, at an average cost of an additional 2 percent of total expenditures per year, could drastically turn the tide over the course of a decade, improving student success and retention and helping to ensure the economic security of the profession.

*If institutions are to commit to academic excellence, the conversion of contingent part-time faculty to full-time and preferably tenure-track positions must be a central component of long-term strategic plans.* One striking finding of our survey of full- and part-time faculty reported in table C is that only 7 percent of full-time faculty and 3 percent of part-time faculty believe that their institution has a plan in place to convert part-time positions to full-time ones. The faculty can and must play a role in shaping a plan for conversion and provide guidance on how best to pay for its costs; these decisions affect not only the institution as a whole but also academic disciplines and departments.

#### **FUNDING A CONVERSION PLAN**

Revenues are rising at US colleges and universities. Recent research from the Delta Cost Project has found that the proportion of costs paid with student tuition stabilized among public institutions and declined among private institutions between 2003 and 2013, resulting in increases in net tuition.<sup>19</sup> At the same time, local and state appropriations are rebounding. Commenting on recent data on endowment returns, John Walda, president of the National Association of College and University Business Officers, said, "Perhaps the most significant finding is the rise in longer-term returns, which will be very beneficial to colleges and universities that are seeking to serve a broader variety of students than ever before."<sup>20</sup> We share this optimism and believe that in the long term, full-time tenured and tenure-track faculty are best suited to meet the educational needs of diverse students. Gains from net tuition revenue, appropriations, and endowments should be directed toward the conversion and retention of full-time tenure-track faculty for economic and educational stability.

Faculty members can work with administrators to find additional sources of savings. Possibilities will vary from institution to institution, but taken together, these recommendations can offer a genuine return that can be directed toward building the long-term security of the faculty through conversion.

It is important to note that many of our proposals should be based on a model of cost alignment and not simply cost containment. *Cost alignment* is the process of identifying expenditures relative to comparable peers, while *cost containment* is the process of undertaking efforts to ensure that a specified threshold of expenditure is not crossed. Cost containment may be beneficial as a short-term measure in financially challenging times, but it is generally not an effective way of determining how a unit or institution can survive in the long term. In financially challenging times, budget officers and senior administrators tend to emphasize cost containment—a strategy that may ultimately result in lower-quality instruction and the erosion of a strategic alignment between an instructional unit and the mission of the institution. For example, disciplines such as music and physics are often asked to cut costs simply because they require more resources than other disciplines. However, the costs of some disciplines are higher not because of a systemic mismanagement of resources but because of expenditures associated with carrying out instructional activity. Drastic cuts thus can lower instructional quality and affect not only that department but also the other departments that share services with it.

One reasonable solution to this problem is the adoption of cost alignment through rigorous benchmarking of instructional and research expenditures at the discipline level relative to comparable academic units at comparable institutions. Cost alignment is a strategy that allows faculty members, budget officers, and administrators to explore how to improve quality at all levels. By establishing a process for improvement, external benchmarking can lay the foundation for cost modeling at the institutional, disciplinary, and programmatic levels. Substantial savings of 2 to 3 percent of instructional costs per year can be realized simply by having a better understanding of instructional costs and more effectively allocating resources.

At the discipline level, faculty should understand roughly how much, on average, it costs to deliver education in their discipline per student and per student credit hour. By learning about the “true cost” of instruction at the discipline level and how that might be higher or lower than comparable disciplines at peer institutions, faculty can become more sensitive to cost. Information about instructional costs should never be used for punitive purposes; rather, it can help faculty members and administrators understand why a unit is more or less expensive so that resources can be more effectively allocated to the academic discipline. Savings of 1 to 2 percent of instructional costs can be realized from peer alignment.

There is no “one-size-fits-all” approach to aligning costs, but faculty members can look to numerous other possible areas for savings. Listed below are a few such areas.

**Athletics:** Athletics can be a major source of revenue or a major expenditure. A recent study of athletic expenditures at public institutions in Louisiana, for example, found that only one athletic program (at Louisiana State University)

required no institutional or state subsidy. The other institutions in the study spent between 1.6 and 8.5 percent of the total institutional budget on athletics. Nationally, a recent study found that 201 public universities pumped \$10.3 billion in student fees and subsidies into athletic programs.<sup>21</sup> Long-term costs of athletic commitments can easily exceed 1 percent of total institutional expenditures and divert funding from the core instructional mission. Overruns must be balanced with resources from other areas. Faculty members can ask the athletics director and chief financial officer what percentage of total expenditures is dedicated to athletics and what percentage of that is dedicated to student support.

**Course Scheduling:** At the course level, faculty members, department chairs, and enrollment managers can work together to attract a broader range of students and better align course schedules. Course scheduling is a key but often overlooked area of potential cost savings. For example, faculty members might want to offer a course “off grid” (from 10:30 to 11:20 a.m. rather than 10:00 to 10:50 a.m.) because they believe that doing so will maximize attendance, but off-grid scheduling can have a negative net effect by preventing students from enrolling in other courses later in the day. Scheduling problems can negatively affect student retention and achievement.<sup>22</sup> Faculty members should work with departmental colleagues and enrollment managers to maximize seat and space use and make sure that the extra revenue generated from savings is returned to instruction.

**Facilities:** The physical plant and operations represent a major long-term cost. While faculty members often defer to plant and facilities operations staff, they can play a role in decision making in this area. For example, not all architects and design firms have the same record of delivering buildings on time, on budget, and on specification. Faculty should ask tough questions about construction projects beforehand and work with operations managers to select designers who have a record of delivering projects on time and on budget. Sometimes the best decision is not to undertake an expensive building project at all.

**Development:** Faculty members are sometimes called upon to assist development officers in showcasing work that might have practical value to the public or innovative pedagogies that could attract additional donations. They can also work with development officers to exercise due diligence in reviewing plans for possible donations. Not all donors have an equal record of following through on financial commitments. Too often, “soft commitments” fail to materialize after plans are made, leaving the development office and budget officers to scramble at the last minute. Understanding the commitment structure can be beneficial for planning. An initiative “green-lighted” with “soft money” that does not fully materialize will have to be either canceled or offset with other revenue. Donations can also come with strings attached that require the institution to spend money. Ask first, so that the institution does not suffer later.

The AAUP Research Office welcomes the opportunity to work with colleges and universities to find creative ways to fund the conversion of part-time faculty positions. Providing benefits to all faculty members not only improves the lives of faculty members; it also indirectly enriches the lives of their students. Please contact the AAUP Research Office at [research@aaup.org](mailto:research@aaup.org) for more information or to share examples of other cost-saving strategies to offset the cost of conversion.

## CONCLUSION

This year's *Annual Report on the Economic Status of the Profession* highlights the crossroads that higher education has reached. On the one hand, the broader economy has generally rebounded from the Great Recession. During this time, innovations in data management and information technology have enabled faculty to teach and conduct research in ways scarcely imaginable a generation ago. On the other hand, despite such progress, considerable challenges lie ahead for faculty and institutions of higher education. Chief among them is the need to reverse the soaring rates of contingency and rebuild a faculty with a strong core of full-time, tenure-track positions.

The decline of the tenure system did not occur overnight; it can be observed over a forty-year period. If US higher education is to retain its global advantage in instructional and research innovation over the next decade, it will need to commit itself to a full-time academic labor force that can in turn commit to academic excellence.

Our report has sought to demonstrate how the conversion of part-time faculty to full-time tenure-eligible positions can reinvigorate institutions of higher education. If conditions in your department are to change, that change likely will come not from chief academic officers but from the faculty. As the previously cited *Inside Higher Ed* survey found, only 8 percent of chief academic officers anticipate relying *less* on non-tenure-track faculty in the future, while 27 percent believe that they will rely *more* on non-tenure-track faculty. Yet the same survey found that only 15 percent of chief academic officers strongly believe that there is a fundamental difference in perspective between faculty members and administrators.<sup>23</sup> These data suggest that most chief academic officers are willing to look for tangible ways to improve their institutions. Increasing the proportion of full-time tenure-track and tenured faculty can be a major part of that solution. However, faculty members must push for this outcome; change will not happen simply because there were tenured faculty previously in a department. Credible solutions to increase revenue and realize cost savings must be explored by both faculty members and administrators; new revenues and cost savings should be reinvested in the faculty who serve the core institutional mission.

This year, our goal was not just to use the *Annual Report on the Economic Status of the Profession* to discuss the overuse of part-time faculty positions and the economic value of tenure but also to empower you to take action by suggesting specific strategies for conversion. Faculty must lead the way in rebuilding the

tenure system; we are our own best hope for a brighter future for students and higher education. Colleges and universities function best when there is a clear institutional mission that focuses on student success, student services, and a full-time faculty. To build this foundation requires a commitment to slow, sustained growth, but over the long term this work can greatly strengthen the health and security of the faculty, the institution, and, ultimately, the economic status of the profession. ■

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23. Jaschik and Lederman, "Inside Higher Ed Survey."

## Explanation of Statistical Data

**Faculty.** *Full-time faculty* is defined as the unduplicated combined total of “Primarily Instructional” and “Instructional/Research/Public Service,” excluding clinical or basic science faculty, medical faculty in schools of medicine, and military faculty, regardless of whether they are formally designated “faculty.” *Primarily Instructional* is an occupational category used to classify persons whose specific assignments customarily are made for the purpose of providing instruction or teaching, regardless of their title, academic rank, or tenure status. *Instructional/Research/Public Service* is an occupational category used to classify persons for whom it is not possible to differentiate between instruction or teaching, research, and public service because each of these functions is an integral component of their regular assignments, regardless of their title, academic rank, or tenure status. Full-time faculty members on sabbatical leave with pay are counted at their regular salaries even though they may be receiving a reduced salary while on leave. Full-time replacements for those on leave with pay are not counted if they are full time. Replacement faculty for those on sabbatical or leave with pay are counted if they are part time. All faculty members who have contracts for the full academic year are included, regardless of whether their status is considered “permanent.” Institutions are asked to exclude (a) full-time faculty on sabbatical or leave without pay; (b) full-time faculty members whose services are valued by bookkeeping entries rather than by full cash transactions unless their salaries are determined by the same principles as those who do not donate their services; (c) full-time faculty members who are in military organizations and are paid on a different scale from civilian employees; (d) administrative officers with titles such as dean of instruction, academic dean, associate or assistant dean, librarian, registrar, coach, or the like, even though they may devote part of their time to instruction, unless their instructional salary is separately budgeted or can be isolated; and (e) research faculty whose appointments have no instructional component.

*Lecturer* is defined as the unduplicated combined total of “Primarily Instructional” and “Instructional/Research/Public Service,” excluding clinical or basic science faculty, medical faculty in schools of medicine, and military faculty, regardless of whether they are formally designated as “faculty” who have titles such as “lecturer” or “visiting lecturer.” For institutions that do not use the title “lecturer” at all, respondents are instructed not to report faculty under the category of “lecturer.”

*No Rank* is defined as the unduplicated combined total of “Primarily Instructional” and “Instructional/Research/Public Service,” excluding clinical or basic science faculty, medical faculty in schools of medicine, and military faculty, regardless of whether they are formally designated as “faculty” who have titles such as “artist in residence” or “scholar in residence.” For institutions that do not use faculty rank at all, respondents are instructed to report faculty under the category of “no rank.”

*Part-time faculty* is defined as the unduplicated combined total of “Primarily Instructional” and “Instructional/Research/Public Service” faculty who are less than full time (employed for fewer than thirty hours per week on average), excluding clinical or basic science faculty, medical faculty in schools of medicine, and military faculty, regardless of whether they are formally designated “faculty.” Part-time faculty exclude casual employees, which are those hired on an ad hoc or occasional basis to meet short-term needs such as students in a college work-study program or faculty members who replace full- or part-time faculty on an interim basis.

*Graduate teaching assistant* is defined as the unduplicated combined total of individuals enrolled in a graduate school program who assist faculty or other instructional staff by performing teaching or teaching-related duties, such as teaching lower-level courses, developing teaching materials, preparing and giving examinations, and grading examinations or papers. Graduate teaching assistants include those individuals who are (a) the instructor of record for an organized class section, (b) the instructor of record for a laboratory section or individualized instruction section, (c) assisting faculty who are not the instructor of record, and (d) “floating” graduate teaching assistants who have a role that

primarily supports instruction but is not directly associated with one section or faculty member.

**Salary.** This figure represents the contracted salary excluding summer teaching, stipends, extra load, or other forms of remuneration. Department heads with faculty rank and no other administrative title are reported at their instructional salary (that is, excluding administrative stipends). Where faculty members are given duties for eleven or twelve months, salary is converted to a standard academic-year basis by applying a factor of 9/11 (81.8 percent) or by the institution’s own factor, reflected in a footnote to the appendix tables of this report located at <http://www.aaup.org/ares>.

**Benefits.** This figure represents the institution (or state) contribution on behalf of the individual faculty member; the amount does not include the employee contribution. The major benefits include (a) retirement contribution, regardless of the plan’s vesting provision; (b) medical insurance; (c) disability income protection; (d) tuition for faculty dependents (both waivers and remissions are included); (e) dental insurance; (f) social security (FICA); (g) unemployment insurance; (h) group life insurance; (i) workers’ compensation premiums; and (j) other benefits with cash alternatives (for the most part, these include benefits such as moving expenses, housing, and cafeteria plans or cash options to certain benefits).

**Compensation.** Compensation represents salary plus institutional contribution to benefits. It is best viewed as an approximate “cost” figure for the institution, rather than an amount received by the faculty member.

**Institutional Control.** Control of an institution refers to whether an institution of higher education is operated by publicly elected or appointed officials (public) or privately elected or appointed officials and whether institutions derive major source of funding from private sources. Institutional Control: PU=Public; PI=Private-Independent; PP=Private For-Profit; PR=Private-Religiously Affiliated.

**Institutional Categories.** *Category I (Doctoral).* Institutions characterized by a significant level and breadth of activity in doctoral-level education as measured by the number of doctorate recipients and the diversity in doctoral-level program offerings. Institutions in this category grant a minimum of thirty doctoral-level degrees annually, from at least three distinct programs. (Awards previously categorized as first-professional degrees, such as the JD, MD, and DD, do not count as doctorates for this classification. Awards in the new category of “doctor’s degree–professional practice” are reviewed on a case-by-case basis.)

*Category IIA (Master’s).* Institutions characterized by diverse postbaccalaureate programs (including first professional) but not engaged in significant doctoral-level education. Institutions in this category grant a minimum of fifty postbaccalaureate degrees annually, from at least three distinct programs. Awards of postbaccalaureate certificates are reviewed on a case-by-case basis.

*Category IIB (Baccalaureate).* Institutions characterized by their primary emphasis on undergraduate baccalaureate-level education. Institutions in this category grant a minimum of fifty bachelor’s degrees annually, from at least three distinct programs, and bachelor’s and higher degrees make up at least 50 percent of total degrees awarded.

*Category III (Associate’s with Academic Ranks).* Institutions characterized by a significant emphasis on undergraduate associate’s degree education. Institutions in this category grant a minimum of fifty associate’s degrees annually. Associate’s degrees make up at least 50 percent, and bachelor’s and higher degrees make up less than 50 percent, of total degrees and certificates awarded.

*Category IV (Associate’s without Academic Ranks).* Institutions characterized by the criteria for category III but without standard academic ranks. An institution that refers to all faculty members as “instructors” or “professors” but does not distinguish among them on the basis of standard ranks should be included in this category. However, if an

institution utilizes another ranking scheme that is analogous to the standard ranks, it can be included in category I, II, or III as appropriate.

**Definition of Data Presented in Appendices I and II.** Academic Ranks: PR=Professor; AO=Associate Professor; AI=Assistant Professor; IN=Instructor; LE=Lecturer; NR=No Rank; AR=All Ranks. All institutions that do not assign professorial ranks are listed in appendix II. The appendices are published online at <http://www.aaup.org/ares>.

*Col. (1) Institutional Category*—The definition of categories is given above.

*Col. (2) Institutional Control*—The definition of control is given above.

*Col. (3) Average Salary by Rank and for All Ranks Combined*—This figure has been rounded to the nearest hundred. “All Ranks Combined” includes the rank of lecturer and the category of “No Rank.” Salary and compensation averages are replaced by dashes (---) when the number of individuals in a given rank is fewer than three.

*Col. (4) Average Compensation by Rank and for All Ranks Combined*—Same definition as that given for Col. (3) but for compensation.

*Col. (5) Benefits as a Percent of Average Salary*—Total benefits as a percent of average salary for all ranks combined.

*Col. (6) Percent of Faculty with Tenure*—This figure represents the percent of faculty members tenured within a given rank. A zero indicates tenured faculty are less than 0.5 percent of that rank.

*Col. (7) Percentage Increase in Salary for Continuing Faculty*—The percentage increase in salary for faculty members remaining at the institution in 2015–16 from the previous year. This represents the average increase for individuals as opposed to a percentage change in average salary levels.

*Col. (8) Number of Faculty Members by Rank and Gender*—This number represents the total number of full-time (FT) faculty members in a given rank.

*Col. (9) Average Salary by Rank and by Gender*—See the definition for Col. (3).

**Institutional Footnotes.** Institutional Footnote numbers are given in the appendix tables between the name of the institution and its category. The footnotes for both appendix I (institutions with academic ranks) and appendix II (institutions without ranks) are available at <http://www.aaup.org/ares>. Footnotes identify specific professional schools or programs (law, dentistry, nursing, engineering, or business) included in the faculty salary and compensation tabulations for each institution. Respondents were asked to self-identify their schools or programs, based on the type of institution, as follows: for a university, they were to include only those organized as separate schools, colleges, or divisions; for smaller institutions, they were to identify programs that are degree granting and employ a substantial number of faculty. Medical school faculty members are excluded from the tabulations.

Institutions seeking peer compensation reports, complete datasets, or data on ratings of average salary or compensation, other tables, or any additional inquiries concerning the data in this report should contact the AAUP Research Office, 1133 Nineteenth Street NW, Suite 200, Washington, DC 20036. Telephone: 202-737-5900 x3627. E-mail: [aaupfcs@aaup.org](mailto:aaupfcs@aaup.org).

# Facilitating Institutional Improvement through Enhanced Benchmarking

BY JOHN BARNSHAW

**T**he key to any longitudinal benchmarking survey is consistency. Generally, consistency in definitions used and data requested from respondents ensures that researchers can effectively track changes over time. For this reason, the AAUP Research Office has been committed for decades to maintaining the same definitions and requesting the same items in the Faculty Compensation Survey.

The higher education landscape, however, has changed. In an effort to better understand the current usefulness of the Faculty Compensation Survey and to assess how proposed changes might more effectively capture the academic labor force, the AAUP Research Office conducted a survey of faculty, administrators, and higher education professionals in summer and fall 2015. Based on the thousands of responses received, and after consultation with diverse constituencies within higher education, we decided that the survey could be improved by (1) providing greater clarity about which faculty members to include and exclude, (2) providing better guidance on reporting categories, (3) including part-time faculty and graduate teaching assistants, and (4) eliminating faculty salary distribution data.

## **GREATER CLARITY ABOUT INCLUSION AND EXCLUSION CRITERIA**

When the AAUP's Faculty Compensation Survey began, the majority of full-time faculty dedicated most of their time to instructional activity. For decades, the survey reflected this reality by defining the "instructional faculty" as "all those members of the instructional-research staff who are employed full time, regardless of whether they are formally designated 'faculty.' It includes all those whose major regular assignment (at least 50 percent) is instruction, including release time for research."

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**JOHN BARNSHAW** is senior higher education researcher at the AAUP.

While it is still the norm for full-time faculty at two- and four-year teaching-intensive institutions to devote most of their time to instruction, this is not the case for all full-time faculty at master's and doctoral degree-granting institutions. It is not uncommon for faculty at such institutions to spend 40 percent of their time on instruction, 40 percent on research, and 20 percent on public service, service to the discipline, or service to the institution. Although research and public service duties may differ from institution to institution, if full-time faculty do not have a regular assignment of 50 percent instruction, they would not, under the long-standing Faculty Compensation Survey definition, be reported in the survey.

In an attempt to adjust its data collection to account for the complexity of full-time faculty duties, the National Center for Education Statistics (NCES) in 2012 revised faculty reporting to include an “instructional/research/public service” category, noting that a faculty member would fall into this category

when “it is not possible to differentiate between instruction or teaching, research, and public service because each of these functions is an integral component of his/her regular assignment.” Figure 1 presents the most recent data from the NCES Integrated Postsecondary Education Data System (IPEDS) for all 4,291 Title-IV-eligible, degree-granting institutions that have first-time, full-time undergraduates. The stacked bar chart on the left provides the percentage breakdown of “primarily instructional” faculty, the segment of the academic labor force that most closely aligns with the historic conceptualization of the faculty long used in the AAUP Faculty Compensation Survey. These data show that 26 percent of primarily instructional faculty are tenured or on the tenure track, a percentage that closely aligns to that in the “instructional/research/public service” category (the right stacked bar chart).

At the institutional level, “primarily instructional” and “instructional/research/public service” are not mutually

exclusive categories: some institutions have some faculty members who are in the former category and others who are in the latter, so simply shifting to the latter would not guarantee that the Faculty Compensation Survey would more accurately capture the total academic labor force. Moreover, representatives of some institutions that should report faculty as “instructional/research/public service” told the AAUP Research Office that they do not do so because they have historically reported faculty under “primarily instructional,” and that changing the categories would cause “primarily instructional” to appear as a zero in their dataset and thus would lead to questions about the accuracy of their reporting. Representatives at other institutions said that they “probably could” break out “primarily instructional” faculty from “instructional/research/public service” faculty but

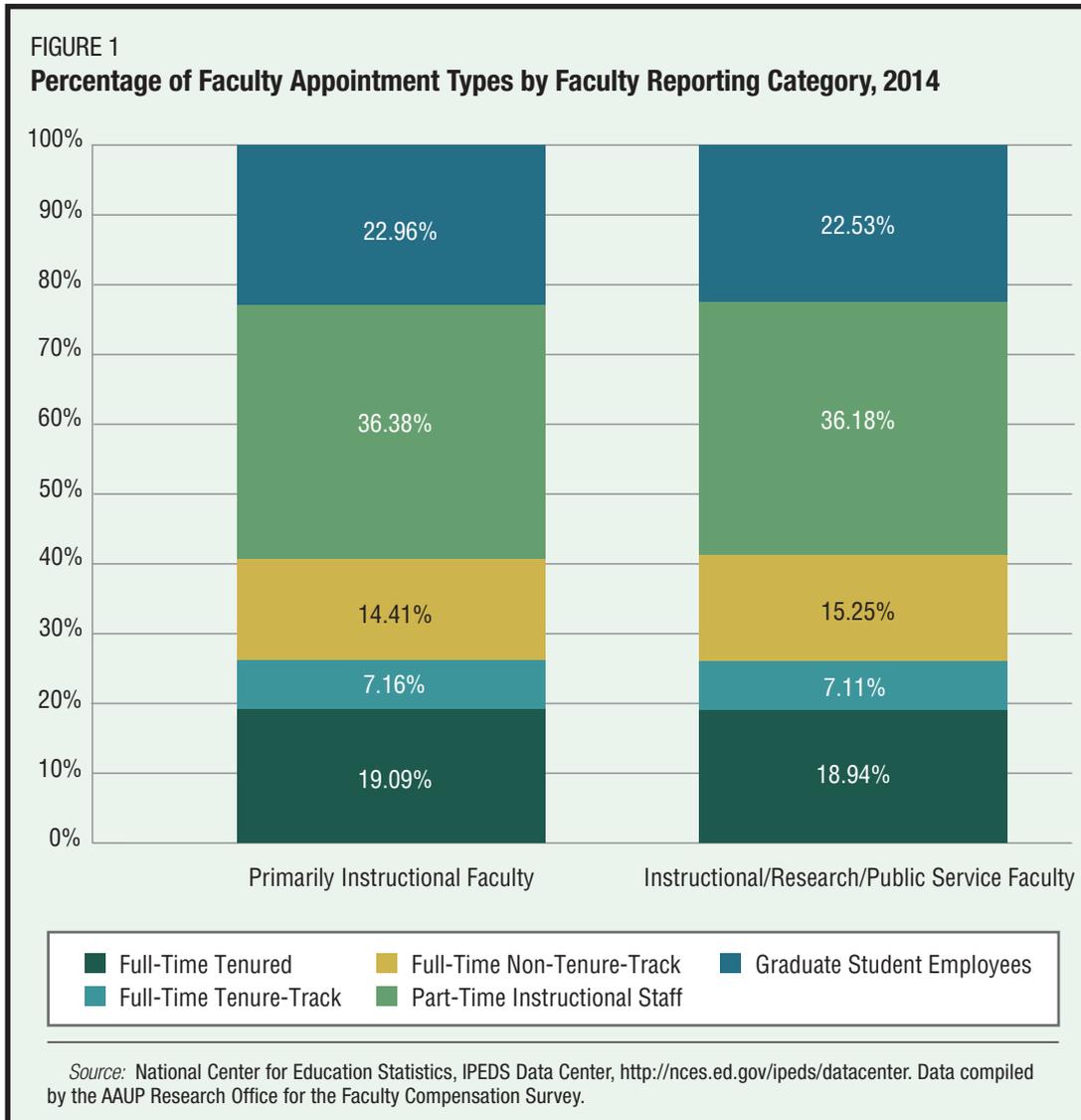
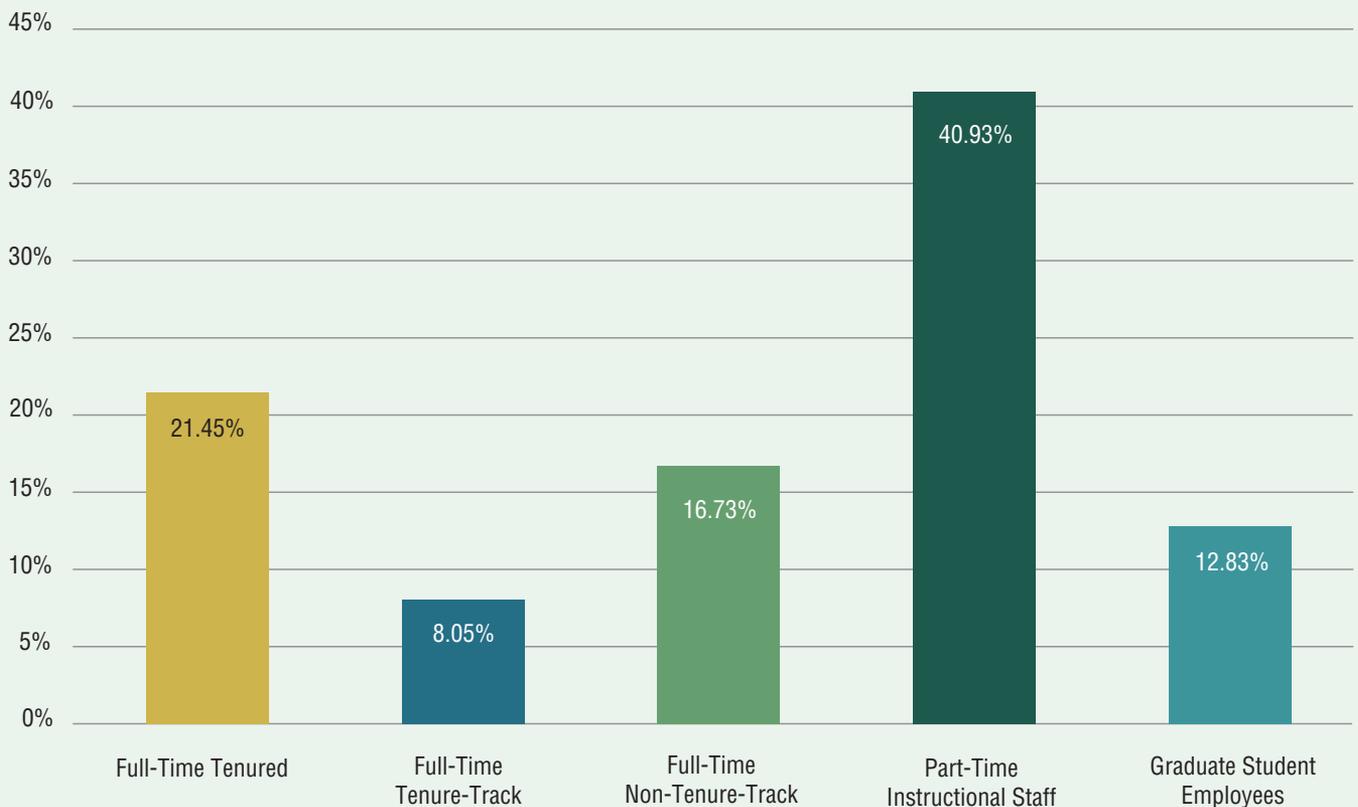


FIGURE 2

**Percentage of Faculty Appointment Types, Primarily Instructional and Instructional/Research/Public Service Faculty Reporting Categories Combined, 2014**



Source: National Center for Education Statistics, IPEDS Data Center, <http://nces.ed.gov/ipeds/datacenter>. Data compiled by the AAUP Research Office for the Faculty Compensation Survey.

choose not to do so for either ease of reporting or consistency (because aggregating data over time can “smooth” any annual variation in reporting).

For these reasons, and after speaking with hundreds of faculty members, human resources officers, institutional research professionals, and current and past representatives of the National Center for Education Statistics, the AAUP Research Office decided to realign the definitions of faculty for the 2015–16 Faculty Compensation Survey by including the unduplicated combined total of “primarily instructional” and “instructional/research/public service.” Clinical or basic science faculty, medical faculty in schools of medicine, and military faculty are excluded from the total, as has long been the case in the survey.

Figure 2 provides the IPEDS combined percentage total of “primarily instructional” and “instructional/research/public service” faculty. The figure represents the best estimate of the academic labor force without undercounting faculty, resulting in a combined total of 30 percent of faculty with tenure or on

the tenure track. The decline in the percentage of graduate student employees from figure 1 results from overlap between the “primarily instructional” and “instructional/research/public service” categories that prevents us from fully disaggregating data on graduate student employees. When combined totals are presented, the graduate student employee total remains constant and undercounts of part-time and full-time faculty are adjusted to provide a more comprehensive depiction of the academic labor force.

**BETTER GUIDANCE ON REPORTING CATEGORIES**

In an effort to improve overall survey quality, the AAUP Research Office also realigned some of the reporting categories in the Faculty Compensation Survey. Previously, the visiting assistant, visiting associate, and visiting professor categories were applied differently by different institutions. This practice resulted in ambiguity, because some institutions reported visiting faculty along with ranked faculty, some reported visiting faculty under the category of “instructor,” and others did not report

visiting faculty at all. After surveying faculty, human resources officers, and institutional research professionals, we decided to request that visiting faculty be reported under the broader, more general “instructor” category. The one exception was visiting lecturers, who are still reported under “lecturer.”

This decision may result in an apparent decrease in ranked positions and in pay. This decrease is likely attributable to the exclusion of visiting faculty, who sometimes earn more than ranked faculty. Related results of this change in reporting are greater ambiguity in the faculty category of “instructor” and improved accuracy in the three ranked categories. Additionally, postdoctoral faculty whose positions include an instructional or instructional/research/public service component were moved to the “instructor” category, as were full-time continuing non-tenure-track faculty.

A detailed description of all full-time faculty reporting categories may be found online at <http://www.aaup.org/file/FCS-categories>.

#### **INCLUSION OF PART-TIME FACULTY AND GRADUATE TEACHING ASSISTANTS**

No description of the academic labor force would be complete without a serious attempt to capture part-time faculty and graduate student employees. Currently, part-time faculty make up approximately 41 percent of the academic labor force, with graduate student employees making up another 13 percent.

Since its inception, the Faculty Compensation Survey has collected data only on full-time faculty. However, over the past four decades, the ranks of tenured faculty have declined by 26 percent and those of tenure-track faculty have declined by 50 percent; meanwhile, the number of part-time faculty has increased by 70 percent. This year, for the first time, we have expanded data collection to include part-time faculty and graduate teaching assistants, who together now represent the majority of the academic labor force.

The AAUP Research Office sought to use the broadest conceptualization of part-time faculty while attempting to limit the reporting burden among participating institutions in order to encourage the highest possible response rate. To this end, part-time faculty have been defined as individuals working less than full time whose regular assignment has an instructional component, regardless of whether the faculty member is formally designated as “part-time faculty.” Like the definition of full-time faculty, the definition of part-time faculty excludes clinical or basic-science faculty, medical faculty in schools of medicine, and military faculty. Also excluded are casual employees appointed on an ad hoc basis, such as those hired mid-semester to replace full-time faculty members on medical leave.

While every effort was made to capture as many part-time faculty as possible by having broad inclusion criteria, it is important to acknowledge the limitations of this first effort at part-time faculty data collection. We asked institutional

respondents to provide the unduplicated total number (headcount) of part-time faculty and the total contracted salaries for these faculty. As a result, part-time tenured and part-time tenure-track faculty—who constitute about 1 percent of part-time faculty—are included with non-tenure-track part-time faculty. There is a great deal of variation among part-time non-tenure-track faculty. Some are on recurring contracts whereby they are employed by an institution for multiple years, others are employed every year with the expectation of renewal, and others are employed on a semester-by-semester basis. Given this variation and other issues with data collection, we opted to report only the total contracted salaries, which means that reporting granularity was lost when data were aggregated.

Furthermore, part-time faculty—whether on recurring or nonrecurring contracts—are often employed on a per-course basis. At some institutions the majority of part-time faculty teach only one course per semester, while at other institutions the majority teach two or more courses per semester. The number of part-time faculty employed by any given institution may not reflect an institution’s use of part-time faculty as a measure of total instruction or student credit-hour production. For example, imagine a discipline that has twelve course sections assigned to part-time faculty who each have thirty students. The institution could employ twelve part-time faculty members teaching one section each, or it could employ four part-time faculty members teaching the same twelve sections at three sections each. If the contracts are paid on a per-course basis, the total contracted salary might be identical, but in the former situation the institution would employ three times the number of part-time faculty and the average total contracted salary would be three times lower. Without the ability to benchmark on a per-course basis, determining meaningful average salaries is impossible. For this reason, the AAUP will report part-time faculty data at a level of aggregation above the institution (by AAUP category and institutional control).

One final limitation of part-time faculty data is related to seasonality. Since the due date for receipt of data was January 29, 2016, it was not possible for any institution to have final part-time faculty numbers for the conclusion of the 2015–16 academic year. In the absence of final data, institutional respondents were instructed to report fall data and spring projections, fall data and data from the prior spring, or fall data and a smoothed estimate based on the prior spring and current spring projections. This guidance acknowledges the limitations of these data. Despite these limitations, the inclusion of data on part-time faculty is an important first step toward better capturing the full dimensions of the academic labor force, and we will explore the feasibility of improved benchmarking of part-time faculty in the future.

This is also the first year that graduate teaching assistant data were captured in the Faculty Compensation Survey. The graduate teaching assistant category includes all individuals enrolled in graduate school programs who teach or perform

teaching-related duties. Graduate teaching assistants may be engaged in activities such as teaching courses, developing teaching materials, preparing and giving examinations, and grading examinations or papers. In an effort to align it with full- and part-time faculty, the category of graduate teaching assistants includes the unduplicated combined total of “primarily instructional” and “instructional/research/public service” and excludes clinical or basic science, medical, and military graduate teaching assistants. Institutional respondents were asked to include graduate teaching assistants who are the instructors of record for a class section, a laboratory section, or individualized instruction sessions as well as those who assist faculty and are not the instructor of record and “floating” graduate teaching assistants who have a role that primarily supports instruction but are not directly associated with one section or a faculty member.

#### **ELIMINATION OF FACULTY SALARY DISTRIBUTION DATA**

A final change to the 2015–16 AAUP Faculty Compensation Survey was the elimination of data collection on the basis of salary distribution by faculty rank, which for many years has been presented in survey report table 8. The collection of these data was time consuming for institutions, and a data-usage survey recently conducted by the AAUP Research Office found that salary distributions were among the least useful types of

data collected in the Faculty Compensation Survey. Faculty and administrators reported that benchmarked salary data sorted by category (sector, control, and region) or peer group is more useful than a national distribution of the percentage of faculty who earn a salary within an ordinal range. For these reasons, faculty salary distribution data will no longer be published in the *Annual Report on the Economic Status of the Profession*.

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We hope that the result of these changes is a more useful Faculty Compensation Survey that better reflects the changing higher education landscape. Although we have made progress toward broader inclusion and better conceptualization of reporting categories, more work remains to be done. The AAUP Research Office welcomes comments and critiques, which can be sent to [aaupfcs@aaup.org](mailto:aaupfcs@aaup.org).

Please check the appendices to this report at <http://www.aaup.org/ares> to see whether your institution is included in the Faculty Compensation Survey. If it is, please take a moment to contact your director of human resources or director of institutional research and thank him or her for participating in the survey. We are very grateful for the time professional staff at your institution put into verifying, validating, and completing our survey, and this publication would not be possible without their assistance. If your institution does not participate, please encourage the human resources department or institutional research office to do so and remind them that there is no charge to participate in this survey. Many institutions use these data to address gender and salary disparity among ranks. The survey is also an excellent resource for recruitment of new faculty, who would likely not have accurate information about the average salary and compensation at your institution without these data.

For decades, the AAUP Faculty Compensation Survey has served higher education as the premier tool for benchmarking faculty salaries and benefits. We hope that the broader inclusion of the academic labor force in this year’s report will enhance benchmarking, better secure the economic status of the faculty, and facilitate institutional improvement across the higher education landscape.

#### **STATEMENT ON DATA QUALITY**

The AAUP Faculty Compensation Survey collects data from two- and four-year institutions across the United States through an online submission portal. These data are reviewed through our internal verification process, and, wherever the AAUP believes a possible error may have occurred, institutional representatives are contacted with a request to review those areas. Nearly all institutions comply with our requests for additional review. If resubmitted data meet our internal standard, they are approved for inclusion in the Faculty Compensation Survey. Questionable data without an institutional response are not included in the Faculty Compensation Survey.

While the AAUP makes every effort to provide the most accurate data, the Faculty Compensation Survey may include inaccuracies and errors or omissions. Users assume the sole risk of making use of these data; under no circumstances will the AAUP be liable to any user for damages arising from use of these data. The AAUP publishes additions and corrections to the *Annual Report on the Economic Status of the Profession* in the July–August issue of *Academe* (the *Bulletin of the American Association of University Professors*) and may make modifications to the content at any time.

Should there be an error in the Faculty Compensation Survey, the AAUP will also notify *Inside Higher Ed*, which publishes data from the survey on its website.



## **Online-Only Feature: Innovative Faculty Research**

**By John Barnshaw**

The 2015–16 *Annual Report on the Economic Status of the Profession* highlighted the work of several faculty members who attribute their willingness to undertake “risky,” innovative research to the security provided by the tenure system. Following are brief sketches of other tenured and tenure-track faculty members whose accomplishments in research demonstrate the economic value of tenure.

*Hadiyah-Nicole Green (Physics), Tuskegee University.* Hadiyah-Nicole Green, who is only the seventy-sixth African American woman to earn a doctorate in physics in the United States, became interested in cancer research after losing close family members to the disease. Recently, she earned a \$1.1 million grant from the Department of Veterans Affairs to study laser-based cancer therapy and develop biomarker-specific platforms to target, image, and treat malignant tumors, including head and neck and prostate cancers.

Green is as accomplished outside of her field as she is in it, having organized more than one hundred community service initiatives in an effort to reach young students further down the educational pipeline. When she speaks with students, she often asks them why, when they hear the word *professor*, they think of Albert Einstein but not anyone who looks like her. She tells them, “If I can do this, you can do this.”

*Gregory Hancock (Human Development and Quantitative Methodology), University of Maryland–College Park.* Gregory Hancock is a leading expert in a type of statistical research known as structural equation modeling, which has great value for fields ranging from medicine to education. Since earning tenure, Hancock says, he has had the freedom to study complex

phenomena in depth, and this understanding directly influences how he mentors students. He regularly attracts students who are interested in taking directed individual studies with him.

Hancock reports that he is quick to recognize potential in graduate students and that he is willing to work with them on projects that will pay off not in the short term but over a career. For one recent project, he studied Bayes nets, a type of statistical modeling rarely used in educational research. After reading extensively on the topic and speaking with economists and other researchers, he was able to create a bridge to his own field. "If I hadn't taken the time to speak their language, we could have an office next to each other and never marry the ideas together," he says. And if Hancock had been on a recurring contractual appointment that expired after one year, it is unlikely that he would have had the opportunity to mentor students as intensively or to build bridges to other research areas.

The tenure system has enabled Hancock and countless other researchers like him to study student learning processes over a period of years rather than months. As Hancock states, "If we are studying something like letter-sound pairings, how you learn the // sound (as in 'llama'), one could teach it one week, test it the next, but that does not guarantee that a student would remember it one month, or one year, or two years from now. . . . From learning to literacy, those basic skills . . . important for reading and comprehension, which matter five and ten years later." Similarly, when children learn mathematical operations, those skills are built one month, one year, three years, and even five years later, as "they form the basis of algebra (which, in turn, forms the basis of much more complex mathematics in a variety of fields)." "Following kids for one month doesn't get at the reason you are teaching them those skills," he says. "Following individuals and tracking them five to ten years out is something that can only be done once you have the type of security tenure provides."

*Marc Lipsitch (Epidemiology), Harvard University.* Lipsitch's scholarly interests focus on evolutionary biology and, specifically, the DNA sequence of bacteria. His research has led to a better understanding of drug resistance. As Lipsitch explains, "a test might work now, but it might not work a few years in the future, or in a hundred years due to resistant strains." His findings have tremendous implications for antibiotic research and may help in the fight against

diseases such as streptococcus pneumoniae, influenza, and hospital-acquired infections. In addition to being renowned for his research, Lipsitch is a popular teacher and mentor who uses the “privilege of tenure” to advocate for academic freedom.

*Tiffany Field (Pediatrics, Psychology, and Psychiatry), University of Miami.* Tiffany Field met Saul Schanberg at a National Institutes of Health study section, where she learned of his work on how touch can stimulate growth hormones in laboratory rats and thought it might have some practical value for her own research on neonatal intensive care. Field’s intent was to see what effect, if any, touch could have on stimulating growth hormones for children in neonatal intensive-care units; her research has resulted in nationwide annual health-care savings of \$4.7 billion. She reports that infant massage therapy is now used in nearly 40 percent of US neonatal intensive-care units.

*Marc Edwards (Civil Engineering), Virginia Polytechnic Institute and State University.* In 2003, Edwards discovered that high levels of lead were present in the Washington, DC, water supply. In 2015, he found even higher levels of lead in the water in Flint, Michigan, and, despite reassurances by state and local authorities to the contrary, his findings were again confirmed. Edwards set up a website, [www.flintwaterstudy.org](http://www.flintwaterstudy.org), to share his findings with the public and hold the government accountable. “I didn’t get in this field to stand by and let science be used to poison little kids,” he told the *Washington Post*. “I can’t live in a world where that happens. I won’t live in that world.”

SURVEY REPORT TABLE 1

**Average Salary and Average Compensation, by Category, Affiliation, and Academic Rank, 2015–16 (Dollars)**

Academic Rank	All Combined	Public	Private-Independent	Religiously Affiliated	All Combined	Public	Private-Independent	Religiously Affiliated
	SALARY				COMPENSATION			
<i>CATEGORY I (Doctoral)</i>								
Professor	135,741	125,833	158,080	137,282	172,213	161,186	197,418	166,691
Associate	95,318	89,870	107,763	92,869	124,490	118,443	138,443	119,389
Assistant	83,805	78,959	94,913	80,868	108,712	103,520	121,009	101,136
Instructor	63,591	56,975	76,808	83,659	80,862	76,020	92,752	75,461
Lecturer	62,878	59,139	71,630	106,755	84,898	81,349	92,315	140,200
No Rank	75,494	73,346	80,712	65,334	92,165	89,459	96,664	90,534
All Combined	103,715	95,955	121,376	101,553	130,595	122,017	150,204	126,307
<i>CATEGORY IIA (Master's)</i>								
Professor	94,385	92,982	96,556	88,129	122,527	121,618	124,535	112,413
Associate	75,699	74,907	76,974	71,291	99,912	100,048	100,194	94,110
Assistant	65,914	65,584	66,551	62,499	87,225	88,289	86,255	82,255
Instructor	53,291	51,879	54,892	50,648	70,895	69,980	71,808	72,036
Lecturer	53,061	51,881	55,601	57,356	72,439	71,135	77,339	71,308
No Rank	66,022	73,008	53,457	74,160	80,329	80,973	78,405	91,184
All Combined	75,918	74,561	77,790	73,224	97,794	97,167	98,868	94,163
<i>CATEGORY IIB (Baccalaureate)</i>								
Professor	87,628	87,751	88,112	77,716	115,191	116,379	115,603	101,804
Associate	70,407	71,145	70,483	65,948	93,632	95,948	93,535	84,722
Assistant	60,403	60,791	60,479	57,441	80,278	83,833	79,717	75,227
Instructor	50,720	49,886	50,917	50,034	68,059	67,855	68,200	65,768
Lecturer	55,472	53,699	56,566	51,402	77,879	77,280	78,450	72,535
No Rank	57,994	56,001	59,795	38,135	77,353	69,149	80,283	n.d.
All Combined	72,104	69,895	72,977	65,547	93,635	92,551	94,343	84,270
<i>CATEGORY III (Associate's with Ranks)</i>								
Professor	80,891	81,270	n.d.	n.d.	109,041	109,761	n.d.	n.d.
Associate	67,713	67,989	n.d.	n.d.	93,486	93,745	n.d.	n.d.
Assistant	58,076	58,221	n.d.	n.d.	81,782	82,120	n.d.	n.d.
Instructor	49,728	49,728	n.d.	n.d.	71,053	71,053	n.d.	n.d.
Lecturer	51,716	51,716	n.d.	n.d.	75,196	75,196	n.d.	n.d.
No Rank	48,430	48,430	n.d.	n.d.	80,328	80,328	n.d.	n.d.
All Combined	65,988	66,216	n.d.	n.d.	88,269	88,628	n.d.	n.d.
<i>CATEGORY IV (Associate's without Ranks)</i>								
No Rank	64,404	64,404	n.d.	n.d.	91,670	89,946	n.d.	n.d.
<i>ALL CATEGORIES COMBINED EXCEPT IV</i>								
Professor	99,446	100,085	99,462	88,191	129,975	131,648	129,250	115,241
Associate	77,192	77,636	77,136	70,741	102,602	104,149	101,597	93,683
Assistant	66,982	67,623	66,666	61,757	89,029	91,343	87,160	81,929
Instructor	54,206	52,806	55,374	55,262	72,307	72,002	72,743	69,391
Lecturer	56,517	54,585	59,814	59,682	78,075	75,890	82,769	81,500
No Rank	66,694	70,242	62,827	53,941	84,853	83,886	85,811	90,859
All Combined	79,424	78,762	80,486	72,146	102,674	102,703	103,155	94,162

*Note:* Salary data are based on 1,023 reporting institutions and compensation data are based on 971 reporting institutions. For definitions of categories, see Explanation of Statistical Data on page 30. N.d. = no data. There were too few private-independent and religiously affiliated institutions in categories III and IV to generate valid separate statistics. These institutions are included in the All Combined column, however.

SURVEY REPORT TABLE 2

**Percentage Change in Salary for Continuing Faculty by Category, Affiliation, and Academic Rank, 2014–15 to 2015–16**

Academic Rank	All Combined	Public	Private-Independent	Religiously Affiliated
<b>CHANGE FOR CONTINUING FACULTY</b>				
<i>CATEGORY I (Doctoral)</i>				
Professor	2.7	2.8	2.5	n.d.
Associate	3.4	3.3	3.6	n.d.
Assistant	3.3	3.2	3.4	n.d.
Instructor	3.6	3.6	3.4	n.d.
All Combined	3.0	3.1	3.0	n.d.
<i>CATEGORY IIA (Master's)</i>				
Professor	2.8	2.4	3.1	2.8
Associate	3.4	3.2	3.6	2.7
Assistant	3.7	3.3	4.2	2.2
Instructor	4.7	4.2	5.3	2.7
All Combined	3.2	2.9	3.6	2.5
<i>CATEGORY IIB (Baccalaureate)</i>				
Professor	3.2	2.9	3.3	3.2
Associate	4.2	3.6	4.2	5.3
Assistant	4.1	3.9	4.1	4.6
Instructor	4.3	3.5	4.4	5.3
All Combined	3.7	3.4	3.7	4.3
<i>CATEGORY III (Associate's with Ranks)</i>				
Professor	3.3	3.3	n.d.	n.d.
Associate	3.7	3.7	n.d.	n.d.
Assistant	4.2	4.2	n.d.	n.d.
Instructor	4.4	4.4	n.d.	n.d.
All Combined	3.7	3.7	n.d.	n.d.
<i>ALL CATEGORIES COMBINED EXCEPT IV</i>				
Professor	2.9	2.7	3.1	3.0
Associate	3.7	3.4	3.9	4.2
Assistant	3.8	3.5	4.0	3.6
Instructor	4.3	4.0	4.6	4.2
All Combined	3.4	3.2	3.5	3.5

*Note:* The table is based on 1,023 responding institutions reporting comparable salary data for both years and 583 institutions reporting continuing faculty data. For definitions of categories, see Explanation of Statistical Data on page 30. N.d. = no data. There were too few religiously affiliated institutions in category I, too few private-independent and religiously affiliated institutions in category III, and too few institutions in category IV to generate valid separate statistics. These institutions are included in the All Combined column, however. Rows labeled "All Combined" include lecturers and unranked faculty where reported.

SURVEY REPORT TABLE 3

**Average Salary for Men and Women Faculty, by Category, Affiliation, and Academic Rank, 2015–16 (Dollars)**

Academic Rank	All Combined	Public	Private-Independent	Religiously Affiliated	All Combined	Public	Private-Independent	Religiously Affiliated
	MEN				WOMEN			
<i>CATEGORY I (Doctoral)</i>								
Professor	138,489	128,794	159,998	139,933	126,517	116,780	148,449	128,500
Associate	97,587	92,335	109,376	95,511	91,731	86,592	103,691	88,924
Assistant	85,958	81,279	96,546	82,343	81,018	76,374	91,624	79,008
Instructor	65,194	59,098	77,388	83,457	59,817	55,289	70,189	68,443
Lecturer	66,131	61,976	75,900	105,012	60,126	56,623	68,025	111,983
No Rank	76,807	74,745	81,586	69,770	69,329	66,723	74,795	59,810
All Combined	110,510	102,667	128,118	107,397	92,304	85,569	107,635	90,392
<i>CATEGORY IIA (Master's)</i>								
Professor	96,358	94,921	98,585	90,653	91,209	89,291	94,190	83,466
Associate	77,238	76,463	78,538	72,468	74,209	73,313	75,633	69,716
Assistant	67,125	67,064	67,549	62,002	64,849	64,342	65,628	62,677
Instructor	52,815	50,392	55,610	50,960	52,713	51,423	54,049	51,064
Lecturer	54,598	52,699	59,463	60,659	51,676	50,996	53,421	52,172
No Rank	64,311	70,076	55,252	n.d.	64,978	70,353	53,122	n.d.
All Combined	79,296	78,140	80,973	75,983	72,247	70,612	74,477	69,656
<i>CATEGORY IIB (Baccalaureate)</i>								
Professor	88,817	88,987	89,284	79,060	85,452	85,119	86,025	75,867
Associate	70,952	71,840	71,010	66,172	69,477	69,867	69,704	63,401
Assistant	60,807	61,613	60,803	57,312	60,040	60,045	60,188	57,359
Instructor	51,722	50,140	52,053	51,316	50,279	49,273	50,514	49,530
Lecturer	57,912	54,370	59,838	57,718	53,708	51,786	54,748	51,482
No Rank	61,275	58,924	62,027	n.d.	54,777	52,013	56,908	n.d.
All Combined	74,453	72,218	75,325	68,022	69,289	67,087	70,096	63,902
<i>CATEGORY III (Associate's with Ranks)</i>								
Professor	81,474	81,833	n.d.	n.d.	79,510	79,905	n.d.	n.d.
Associate	68,152	68,416	n.d.	n.d.	67,134	67,411	n.d.	n.d.
Assistant	58,384	58,583	n.d.	n.d.	57,877	58,004	n.d.	n.d.
Instructor	50,171	50,171	n.d.	n.d.	49,169	49,169	n.d.	n.d.
Lecturer	53,415	53,415	n.d.	n.d.	50,365	50,365	n.d.	n.d.
No Rank	48,548	48,548	n.d.	n.d.	51,735	51,735	n.d.	n.d.
All Combined	67,436	67,698	n.d.	n.d.	64,737	64,932	n.d.	n.d.
<i>CATEGORY IV (Associate's without Ranks)</i>								
No Rank	63,741	63,741	n.d.	n.d.	65,144	65,144	n.d.	n.d.
<i>ALL CATEGORIES COMBINED EXCEPT IV</i>								
Professor	101,283	102,061	101,162	90,117	95,652	95,547	96,381	84,529
Associate	78,459	79,157	78,185	71,564	91,731	86,592	103,691	88,924
Assistant	68,071	69,097	67,429	61,830	81,018	76,374	91,624	79,008
Instructor	54,908	53,046	56,568	56,279	59,817	55,289	70,189	68,443
Lecturer	58,903	56,171	63,917	64,607	60,126	56,623	68,025	111,983
No Rank	67,973	70,255	65,046	69,770	63,599	66,239	60,776	52,560
All Combined	83,012	82,736	83,738	75,084	74,681	73,546	76,124	68,795

*Note:* The table is based on 1,023 reporting institutions. For definitions of categories, see Explanation of Statistical Data on page 30. N.d. = no data. There were too few private-independent and religiously affiliated institutions in categories III and IV to generate valid separate statistics. These institutions are included in the All Combined column, however.

SURVEY REPORT TABLE 4

**Presidential Salary, by Category and Affiliation, 2015–16 (Dollars)**

	Presidential Salary							
	Public				Private-Independent			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	455,806	436,601	68,000	999,996	623,426	620,000	204,000	1,225,000
Category IIA (Master's)	272,739	276,700	65,945	493,099	353,492	327,500	180,180	808,200
Category IIB (Baccalaureate)	221,481	223,546	81,396	393,939	305,721	295,000	92,000	662,160
Category III (Associate's with Ranks)	222,087	193,359	65,945	480,000	n.d.	n.d.	n.d.	n.d.
Category IV (Associate's without Ranks)	203,172	212,004	136,211	250,000	n.d.	n.d.	n.d.	n.d.
	Religiously Affiliated				All Combined			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
	Category I (Doctoral)	n.d.	n.d.	n.d.	n.d.	485,935	450,000	68,000
Category IIA (Master's)	320,512	328,250	222,800	461,509	308,572	300,000	65,945	808,200
Category IIB (Baccalaureate)	241,061	211,090	125,000	500,000	289,671	274,456	81,396	662,160
Category III (Associate's with Ranks)	n.d.	n.d.	n.d.	n.d.	225,226	193,938	65,945	480,000
Category IV (Associate's without Ranks)	n.d.	n.d.	n.d.	n.d.	203,172	212,004	136,211	250,000

*Note:* The table is based on 653 reporting institutions. Presidential salary is for calendar year 2015. N.d. = no data.

SURVEY REPORT TABLE 5

**Chief Academic Officer Salary, by Category and Affiliation, 2015–16 (Dollars)**

	Chief Academic Officer Salary							
	Public				Private-Independent			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	319,974	320,152	167,000	655,416	376,257	358,776	142,140	665,503
Category IIA (Master's)	203,574	194,368	133,900	340,000	201,841	184,151	72,000	575,000
Category IIB (Baccalaureate)	155,717	155,380	63,024	286,985	171,286	166,088	66,600	350,000
Category III (Associate's with Ranks)	151,025	132,600	87,000	300,000	n.d.	n.d.	n.d.	n.d.
Category IV (Associate's without Ranks)	128,538	117,718	88,834	182,436	n.d.	n.d.	n.d.	n.d.
	Religiously Affiliated				All Combined			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
	Category I (Doctoral)	n.d.	n.d.	n.d.	n.d.	329,044	325,145	77,635
Category IIA (Master's)	194,933	186,175	140,878	257,201	202,519	189,874	72,000	575,000
Category IIB (Baccalaureate)	146,150	151,500	69,000	250,000	167,786	164,110	63,024	350,000
Category III (Associate's with Ranks)	n.d.	n.d.	n.d.	n.d.	150,821	133,658	87,000	300,000
Category IV (Associate's without Ranks)	n.d.	n.d.	n.d.	n.d.	128,538	117,718	88,834	182,436

*Note:* The table is based on 653 reporting institutions. Chief academic officer salary is for calendar year 2015. N.d. = no data.

SURVEY REPORT TABLE 6

**Chief Financial Officer Salary, by Category and Affiliation, 2015–16 (Dollars)**

	Chief Financial Officer Salary							
	Public				Private-Independent			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	272,863	263,618	122,590	543,250	325,361	315,956	121,378	625,986
Category IIA (Master's)	175,447	168,713	85,000	275,000	207,227	197,646	83,180	450,000
Category IIB (Baccalaureate)	139,935	121,478	61,325	247,690	175,963	169,975	65,000	372,397
Category III (Associate's with Ranks)	147,832	122,153	75,000	343,418	n.d.	n.d.	n.d.	n.d.
Category IV (Associate's without Ranks)	126,724	119,383	85,769	182,436	n.d.	n.d.	n.d.	n.d.
	Religiously Affiliated				All Combined			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
	Category I (Doctoral)	n.d.	n.d.	n.d.	n.d.	282,065	268,350	77,635
Category IIA (Master's)	188,861	174,850	144,721	280,000	189,390	179,219	83,180	450,000
Category IIB (Baccalaureate)	140,129	141,714	60,000	192,000	169,123	162,797	60,000	372,397
Category III (Associate's with Ranks)	n.d.	n.d.	n.d.	n.d.	148,258	123,646	75,000	343,418
Category IV (Associate's without Ranks)	n.d.	n.d.	n.d.	n.d.	126,724	119,383	85,769	182,436

Note: The table is based on 629 reporting institutions. Chief financial officer salary is for calendar year 2015. N.d. = no data.

SURVEY REPORT TABLE 7

**Comparison of Average Salaries of Presidents and Faculty, by Category and Affiliation, 2015–16**

	Ratio of Salaries, President to Average Full Professor							
	Public				Private-Independent			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	3.62	3.47	0.54	7.95	3.94	3.92	1.29	7.75
Category IIA (Master's)	2.93	2.98	0.71	5.30	3.66	3.39	1.87	8.37
Category IIB (Baccalaureate)	2.52	2.55	0.93	4.49	3.47	3.35	1.04	7.51
Category III (Associate's with Ranks)	2.73	2.38	0.81	5.91	n.d.	n.d.	n.d.	n.d.
Category IV (Associate's without Ranks)	2.50	2.61	1.68	3.08	n.d.	n.d.	n.d.	n.d.
	Religiously Affiliated				All Combined			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
	Category I (Doctoral)	n.d.	n.d.	n.d.	n.d.	3.58	3.32	0.50
Category IIA (Master's)	3.64	3.72	2.53	5.24	3.27	3.18	0.70	8.56
Category IIB (Baccalaureate)	3.10	2.72	1.61	6.43	3.31	3.13	0.93	7.56
Category III (Associate's with Ranks)	n.d.	n.d.	n.d.	n.d.	2.78	2.40	0.82	5.93
Category IV (Associate's without Ranks)	n.d.	n.d.	n.d.	n.d.	3.15	3.29	2.11	3.88

Note: The table is based on 653 reporting institutions. Presidential salary is for calendar year 2015. N.d. = no data.

SURVEY REPORT TABLE 8

**Average Amount Paid per Part-Time Faculty Member, by Category and Affiliation, 2015–16 (Dollars)**

	Average Annual Part-Time Faculty Pay			
	All Combined	Public	Private-Independent	Religiously Affiliated
Category I (Doctoral)	26,321	27,402	21,843	n.d.
Category IIA (Master's)	14,272	12,797	16,674	13,788
Category IIB (Baccalaureate)	14,849	12,961	15,549	10,846
Category III (Associate's with Ranks)	15,056	15,236	6,017	n.d.
Category IV (Associate's without Ranks)	9,803	9,803	n.d.	n.d.
All Combined	16,718	17,246	16,369	11,827

*Note:* The table is based on 582 reporting institutions. For definitions of categories and part-time faculty, see Explanation of Statistical Data on page 30. N.d. = no data.

SURVEY REPORT TABLE 9

**Average Amount Paid per Part-Time Graduate Teaching Assistant, by Category and Affiliation, 2015–16 (Dollars)**

	Average Annual Part-Time Graduate Teaching Assistant Pay			
	All Combined	Public	Private-Independent	Religiously Affiliated
Category I (Doctoral)	14,345	14,273	14,839	n.d.
Category IIA (Master's)	9,011	9,101	7,897	n.d.
Category IIB (Baccalaureate)	7,042	8,407	6,060	4,579
All Combined	11,205	11,394	10,216	4,579

*Note:* The table is based on 230 reporting institutions. For definitions of categories and part-time graduate teaching assistant, see Explanation of Statistical Data on page 30. N.d. = no data.

SURVEY REPORT TABLE 10

**Number of Institutions Included in Tabulations, by Category and Affiliation, 2015–16**

	Number in Tabulations			
	All Combined	Public	Private-Independent	Religiously Affiliated
Category I (Doctoral)	207	142	62	3
Category IIA (Master's)	356	195	151	10
Category IIB (Baccalaureate)	356	64	277	15
Category III (Associate's with Ranks)	87	85	2	0
Category IV (Associate's without Ranks)	17	17	0	0
All Combined	1,023	503	492	28

*Note:* The number of individual institutions included in the appendices may differ from that shown in the tabulations. For definitions of categories, see Explanation of Statistical Data on page 30.

SURVEY REPORT TABLE 11

**Average Salary, by Region, Category, and Academic Rank, 2015–16 (Dollars)**

Academic Rank	Northeast		North Central		South			West	
	New England <sup>a</sup>	Middle Atlantic <sup>b</sup>	East North Central <sup>c</sup>	West North Central <sup>d</sup>	East South Central <sup>e</sup>	West South Central <sup>f</sup>	South Atlantic <sup>g</sup>	Mountain <sup>h</sup>	Pacific <sup>i</sup>
<i>CATEGORY I (Doctoral)</i>									
Professor	160,031	150,950	128,196	120,696	124,592	127,785	134,898	117,915	141,980
Associate	109,123	106,866	91,674	85,815	86,753	90,120	94,291	85,788	99,498
Assistant	93,016	90,661	80,704	80,946	74,405	82,416	81,580	75,018	88,234
Instructor	79,352	65,947	58,695	55,787	52,886	56,382	61,202	50,739	63,130
Lecturer	74,948	65,928	57,402	56,647	49,682	58,663	58,498	58,832	80,134
No Rank	64,649	80,014	54,176	50,223	64,254	70,504	80,980	95,756	65,315
All Combined	119,620	113,725	96,180	90,040	88,450	92,654	97,169	88,043	112,946
<i>CATEGORY IIA (Master's)</i>									
Professor	105,368	103,835	85,897	84,142	84,285	91,727	90,113	97,933	102,918
Associate	83,382	82,460	69,383	69,005	68,850	72,888	72,070	75,138	83,214
Assistant	70,866	69,712	62,095	59,616	60,400	63,902	63,522	64,790	72,864
Instructor	60,695	57,611	53,318	48,552	50,611	49,162	52,078	45,323	56,942
Lecturer	64,593	58,481	46,902	44,508	43,636	45,573	49,922	49,391	58,538
No Rank	73,966	53,826	59,037	41,549	50,554	61,394	56,005	48,012	78,061
All Combined	83,146	81,884	67,997	67,166	66,822	71,010	70,786	68,189	81,947
<i>CATEGORY IIB (Baccalaureate)</i>									
Professor	107,926	100,708	82,428	75,910	75,252	69,654	80,396	79,000	110,327
Associate	82,930	78,320	67,001	62,605	62,548	58,741	66,592	64,221	85,404
Assistant	69,620	66,013	58,776	55,679	54,286	52,464	57,204	55,263	70,522
Instructor	61,017	56,823	50,317	48,496	43,816	43,348	47,964	45,436	59,892
Lecturer	71,971	61,764	50,604	47,918	47,967	49,703	48,591	49,828	53,585
No Rank	58,422	66,485	47,625	58,043	n.d.	n.d.	51,473	61,558	58,608
All Combined	85,748	78,974	67,400	62,533	61,683	58,177	66,006	63,988	86,987
<i>CATEGORY III (Associate's with Ranks)</i>									
Professor	70,179	86,789	88,399	64,508	61,527	63,395	77,065	64,316	89,007
Associate	55,776	72,175	71,671	57,481	55,489	53,350	63,846	55,243	76,509
Assistant	49,711	61,176	59,199	55,158	46,325	49,764	54,625	51,004	67,370
Instructor	47,869	50,437	49,136	51,887	40,385	41,548	50,388	45,261	57,041
Lecturer	n.d.	54,437	51,530	n.d.	n.d.	n.d.	38,177	34,466	n.d.
No Rank	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	54,756	49,287
All Combined	59,166	68,109	65,597	56,755	49,789	52,949	62,316	54,176	69,547
<i>CATEGORY IV (Associate's without Ranks)</i>									
No Rank	n.d.	n.d.	n.d.	51,228	n.d.	55,591	65,465	n.d.	85,740
<i>ALL CATEGORIES COMBINED EXCEPT IV</i>									
Professor	116,107	108,462	93,817	84,734	90,226	95,936	95,092	97,963	112,910
Associate	87,173	83,836	73,284	67,854	70,709	73,852	74,247	74,246	87,067
Assistant	73,879	70,784	64,230	60,506	61,416	65,839	64,465	64,922	75,598
Instructor	65,168	57,507	53,495	49,464	49,210	48,992	52,599	47,684	59,298
Lecturer	71,363	60,757	51,417	50,317	46,865	53,668	51,934	54,094	64,102
No Rank	62,100	66,865	54,157	50,987	56,034	66,600	68,656	63,886	70,974
All Combined	90,680	84,438	72,987	67,836	69,887	73,273	74,049	72,989	89,306

Note: The table is based on 969 reporting institutions. For definitions of categories, see Explanation of Statistical Data. N.d. = no data.

a. New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

b. Middle Atlantic: New Jersey, New York, and Pennsylvania.

c. East North Central: Illinois, Indiana, Michigan, Ohio, and Wisconsin.

d. West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

e. East South Central: Alabama, Kentucky, Mississippi, and Tennessee.

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g. South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, Puerto Rico, South Carolina, Virgin Islands, Virginia, and West Virginia.

h. Mountain: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

i. Pacific: Alaska, California, Guam, Hawaii, Oregon, and Washington.

SURVEY REPORT TABLE 12

**Average Compensation, by Region, Category, and Academic Rank, 2015–16 (Dollars)**

Academic Rank	Northeast		North Central		South			West	
	New England <sup>a</sup>	Middle Atlantic <sup>b</sup>	East North Central <sup>c</sup>	West North Central <sup>d</sup>	East South Central <sup>e</sup>	West South Central <sup>f</sup>	South Atlantic <sup>g</sup>	Mountain <sup>h</sup>	Pacific <sup>i</sup>
<b>CATEGORY I (Doctoral)</b>									
Professor	202,793	192,764	164,608	153,292	155,329	161,735	168,197	148,933	186,455
Associate	141,586	140,792	121,363	111,673	110,258	115,954	120,464	111,004	133,708
Assistant	120,117	119,089	106,815	102,850	94,511	104,689	104,404	97,141	118,950
Instructor	103,696	90,536	79,127	74,340	68,925	75,388	80,011	68,333	86,036
Lecturer	99,235	89,333	79,035	75,410	67,795	75,734	77,123	78,346	111,515
No Rank	85,917	104,210	73,221	67,420	82,273	89,576	101,109	117,615	90,098
All Combined	153,355	147,927	125,863	117,738	111,319	118,122	123,479	113,098	150,089
<b>CATEGORY IIA (Master's)</b>									
Professor	137,138	135,463	111,045	108,405	109,155	115,255	118,238	131,921	132,676
Associate	111,449	110,087	91,502	89,528	89,608	93,078	95,869	103,402	110,041
Assistant	95,260	93,640	82,127	77,072	78,594	82,373	85,027	88,954	96,150
Instructor	80,206	78,365	70,770	64,928	66,496	65,024	70,693	65,377	75,674
Lecturer	83,677	83,627	65,376	58,757	59,618	59,353	67,468	70,150	80,143
No Rank	94,123	71,856	82,602	55,794	65,525	75,657	76,082	65,387	111,071
All Combined	110,389	108,693	89,595	87,268	86,946	90,167	94,097	94,400	107,865
<b>CATEGORY IIB (Baccalaureate)</b>									
Professor	141,451	131,459	108,624	99,425	98,506	90,307	102,292	112,504	145,242
Associate	110,084	104,413	89,416	83,707	82,357	77,184	85,091	91,832	113,595
Assistant	91,399	87,542	77,570	75,318	70,730	68,087	73,814	79,306	94,175
Instructor	78,427	74,969	65,155	66,127	59,123	57,025	62,973	67,189	80,533
Lecturer	95,855	84,098	66,916	65,539	57,978	65,463	71,906	77,089	73,338
No Rank	77,903	88,871	64,199	88,281	n.d.	n.d.	63,963	91,780	74,960
All Combined	112,909	104,363	89,497	83,367	80,686	75,647	84,336	91,620	115,211
<b>CATEGORY III (Associate's with Ranks)</b>									
Professor	95,032	121,191	116,905	88,216	83,820	83,067	96,409	86,476	123,912
Associate	79,233	103,725	96,832	78,044	78,366	70,094	81,660	75,687	108,709
Assistant	69,267	90,554	82,157	75,826	65,832	65,983	70,033	69,419	97,686
Instructor	62,359	75,450	64,436	71,913	55,669	57,529	63,449	62,318	83,851
Lecturer	n.d.	81,661	73,451	n.d.	n.d.	n.d.	45,636	56,338	n.d.
No Rank	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	80,541	80,116
All Combined	81,683	98,466	89,578	77,578	69,626	69,956	78,717	74,435	99,132
<b>CATEGORY IV (Associate's without Ranks)</b>									
No Rank	n.d.	n.d.	n.d.	75,784	n.d.	n.d.	93,377	n.d.	111,080
<b>ALL CATEGORIES COMBINED EXCEPT IV</b>									
Professor	151,279	142,303	122,505	110,291	116,123	121,579	122,426	129,867	148,270
Associate	116,209	112,804	97,653	89,714	91,912	95,079	96,656	100,211	116,593
Assistant	97,563	95,604	85,668	80,238	79,551	84,639	84,433	87,722	101,470
Instructor	85,303	78,949	71,040	66,996	64,937	65,057	70,076	66,682	81,553
Lecturer	94,798	85,154	71,326	68,007	62,696	69,517	70,701	74,534	88,443
No Rank	82,292	88,138	73,329	70,059	73,899	83,611	88,635	90,015	99,459
All Combined	119,444	112,792	97,011	89,810	90,343	93,665	96,285	98,575	118,940

Note: The table is based on 947 reporting institutions. For definitions of categories, see Explanation of Statistical Data. N.d. = no data.

a. New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

b. Middle Atlantic: New Jersey, New York, and Pennsylvania.

c. East North Central: Illinois, Indiana, Michigan, Ohio, and Wisconsin.

d. West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

e. East South Central: Alabama, Kentucky, Mississippi, and Tennessee.

f. West South Central: Arkansas, Louisiana, Oklahoma, and Texas.

g. South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, Puerto Rico, South Carolina, Virgin Islands, Virginia, and West Virginia.

h. Mountain: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

i. Pacific: Alaska, California, Guam, Hawaii, Oregon, and Washington.

SURVEY REPORT TABLE 13

**Percentile Distribution of Institutions, by Average Salary and Academic Rank, 2015–16 (Dollars)**

Rating <sup>a</sup>	1*	1	2	3	4					
Academic Rank	95	90	80	70	60	50	40	30	20	10
<i>CATEGORY I (Doctoral)</i>										
Professor	194,817	174,558	156,140	147,310	138,556	130,325	123,550	118,115	111,840	102,300
Associate	124,330	116,802	106,347	102,391	97,004	93,969	89,215	86,131	82,238	76,115
Assistant	113,029	102,597	95,281	88,774	85,653	81,542	77,701	74,883	70,561	67,162
Instructor	88,312	78,455	68,912	65,048	61,954	58,130	54,201	51,580	48,546	45,399
All Combined	151,404	129,369	119,079	109,428	102,233	96,600	90,473	86,707	80,714	74,686
<i>CATEGORY IIA (Master's)</i>										
Professor	125,414	119,121	108,766	101,364	97,015	93,246	89,541	84,776	79,706	72,636
Associate	97,061	92,214	84,541	80,883	77,190	74,949	72,063	69,129	66,172	61,522
Assistant	82,131	78,514	74,767	70,178	67,505	65,067	62,519	60,248	58,287	53,852
Instructor	68,760	65,444	61,141	57,169	54,246	51,369	49,387	47,178	44,658	42,270
All Combined	97,050	91,490	84,068	79,339	75,774	72,141	69,831	67,033	63,649	59,582
<i>CATEGORY IIB (Baccalaureate)</i>										
Professor	136,451	122,195	103,139	94,499	88,189	83,480	79,721	74,094	68,626	62,943
Associate	98,992	93,215	80,676	75,431	70,574	67,884	65,452	62,003	58,178	54,245
Assistant	81,139	76,201	68,894	64,720	61,260	58,570	56,288	53,957	51,041	48,077
Instructor	67,956	63,735	58,422	54,415	51,878	49,931	48,071	46,185	43,378	40,112
All Combined	105,819	97,129	81,323	74,784	70,972	67,481	63,960	61,028	57,459	53,324
<i>CATEGORY III (Associate's with Ranks)</i>										
Professor	104,466	100,899	93,987	89,971	88,160	82,627	75,162	69,208	64,062	60,374
Associate	84,017	81,697	76,744	74,405	72,080	68,099	64,017	58,933	56,141	52,571
Assistant	71,241	70,283	66,664	64,045	59,579	56,583	54,596	52,065	49,874	47,119
Instructor	60,712	60,053	57,986	54,947	52,139	48,741	47,201	45,287	43,161	40,385
All Combined	79,135	77,419	72,444	70,194	66,164	62,595	59,841	57,462	54,872	50,796
<i>CATEGORY IV (Associate's without Ranks)</i>										
No Rank	91,453	91,251	84,294	73,337	68,801	65,044	58,430	55,134	48,684	44,028

*Note:* The table is based on 969 reporting institutions. For definitions of categories, see Explanation of Statistical Data.

a. Interpretation of the Ratings: 1\*=95th Percentile; 1=80th; 2=60th; 3=40th; 4=20th. An average lower than the 20th percentile is rated 5.

SURVEY REPORT TABLE 14

**Percentile Distribution of Institutions, by Average Compensation and Academic Rank, 2015–16 (Dollars)**

Rating <sup>a</sup>	1*	1	2	3	4					
Academic Rank	95	90	80	70	60	50	40	30	20	10
<i>CATEGORY I (Doctoral)</i>										
Professor	244,483	222,178	200,722	185,520	176,901	166,445	157,573	152,046	141,854	127,504
Associate	163,769	151,871	140,195	133,973	128,563	122,832	116,079	112,062	106,712	100,351
Assistant	146,962	131,945	123,283	115,924	112,001	106,540	101,658	97,858	92,794	87,101
Instructor	120,535	103,217	94,514	88,067	82,004	77,925	74,160	71,448	64,473	59,280
All Combined	195,656	169,866	154,108	140,981	132,904	123,954	120,101	113,010	105,684	97,679
<i>CATEGORY IIA (Master's)</i>										
Professor	164,084	154,911	140,456	130,172	125,306	120,614	115,265	110,145	103,581	95,913
Associate	130,827	123,703	111,067	106,179	101,985	98,032	94,069	90,336	86,892	80,996
Assistant	110,889	106,678	98,620	93,344	89,037	85,312	82,359	79,071	76,431	70,549
Instructor	95,460	87,360	80,581	76,529	72,883	69,232	65,633	63,133	60,924	56,511
All Combined	131,644	123,624	109,710	103,324	99,516	95,163	91,177	87,362	83,756	78,336
<i>CATEGORY IIB (Baccalaureate)</i>										
Professor	181,455	163,971	137,710	125,945	115,469	110,238	103,573	96,500	89,391	79,578
Associate	132,130	125,247	109,478	99,934	93,864	90,656	86,444	82,777	76,323	70,618
Assistant	108,019	103,434	93,842	85,800	81,563	77,768	74,284	71,459	67,653	62,259
Instructor	95,385	86,294	79,349	72,174	69,368	66,371	63,041	60,674	57,347	53,094
All Combined	138,600	129,309	109,014	101,218	94,102	89,205	85,483	79,440	76,058	68,727
<i>CATEGORY III (Associate's with Ranks)</i>										
Professor	138,927	134,425	126,498	124,425	117,658	107,385	103,153	96,113	86,121	80,531
Associate	118,391	114,934	107,079	101,600	97,088	92,189	87,332	84,698	78,895	69,791
Assistant	104,658	101,845	95,429	87,009	84,677	79,328	75,869	72,071	67,971	65,636
Instructor	94,602	88,683	85,136	76,409	74,292	69,563	66,674	62,625	57,953	54,564
All Combined	112,509	110,740	100,372	95,622	91,112	86,484	83,175	80,836	74,890	68,112
<i>CATEGORY IV (Associate's without Ranks)</i>										
No Rank	118,377	117,723	115,339	97,329	95,230	91,612	85,622	83,080	76,702	65,029

Note: The table is based on 947 reporting institutions. For definitions of categories, see Explanation of Statistical Data.

a. Interpretation of the Ratings: 1\*=95th Percentile; 1=80th; 2=60th; 3=40th; 4=20th. An average lower than the 20th percentile is rated 5.

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*Additional tables are available online at <http://www.aaup.org/ares>*