

HIGHER EDUCATION AT A CROSSROADS:

THE ECONOMIC VALUE OF TENURE AND THE SECURITY OF THE PROFESSION

Last 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.¹ Among undergraduates who took out student loans and graduated with a bachelor’s degree, median student debt now exceeds \$30,000.²

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

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

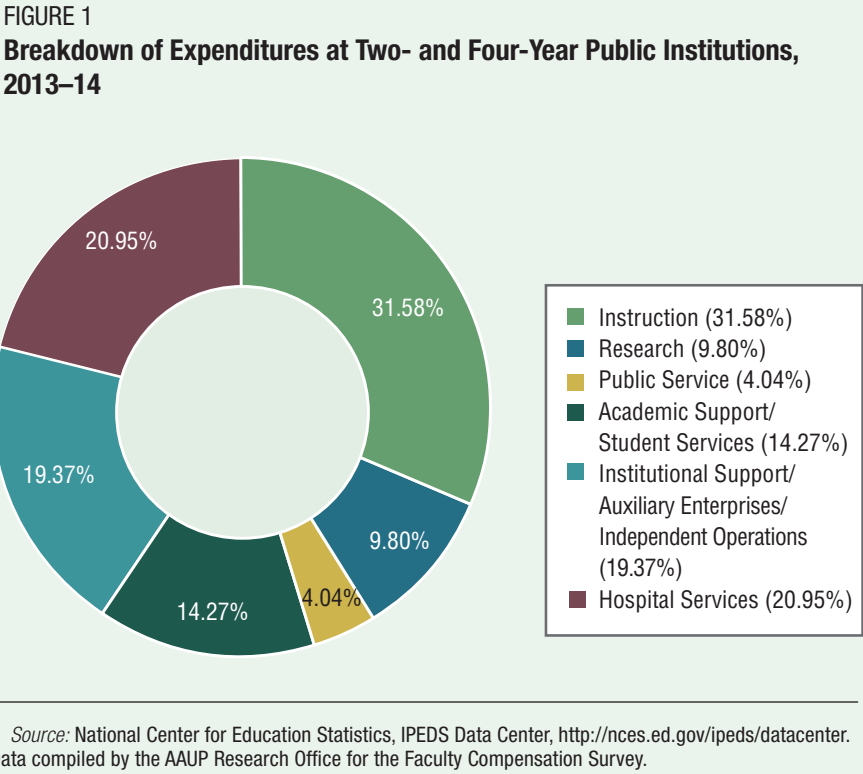


TABLE A
Percentage Change in Average Nominal and Real Continuing Salaries for Institutions Reporting Comparable Data for Adjacent One-Year Periods, and Percentage Change in the Consumer Price Index, 1971–72 to 2015–16

	Prof.	Assoc.	Asst.	Inst.	All Ranks	Prof.	Assoc.	Asst.	Inst.	All Ranks	Change in CPI-U
NOMINAL TERMS						REAL TERMS					
CONTINUING FACULTY											
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.³

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.⁴ 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.⁵

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.⁶ 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.”⁷

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.*⁸

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

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.”⁹

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.¹⁰ 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.¹¹

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.

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.

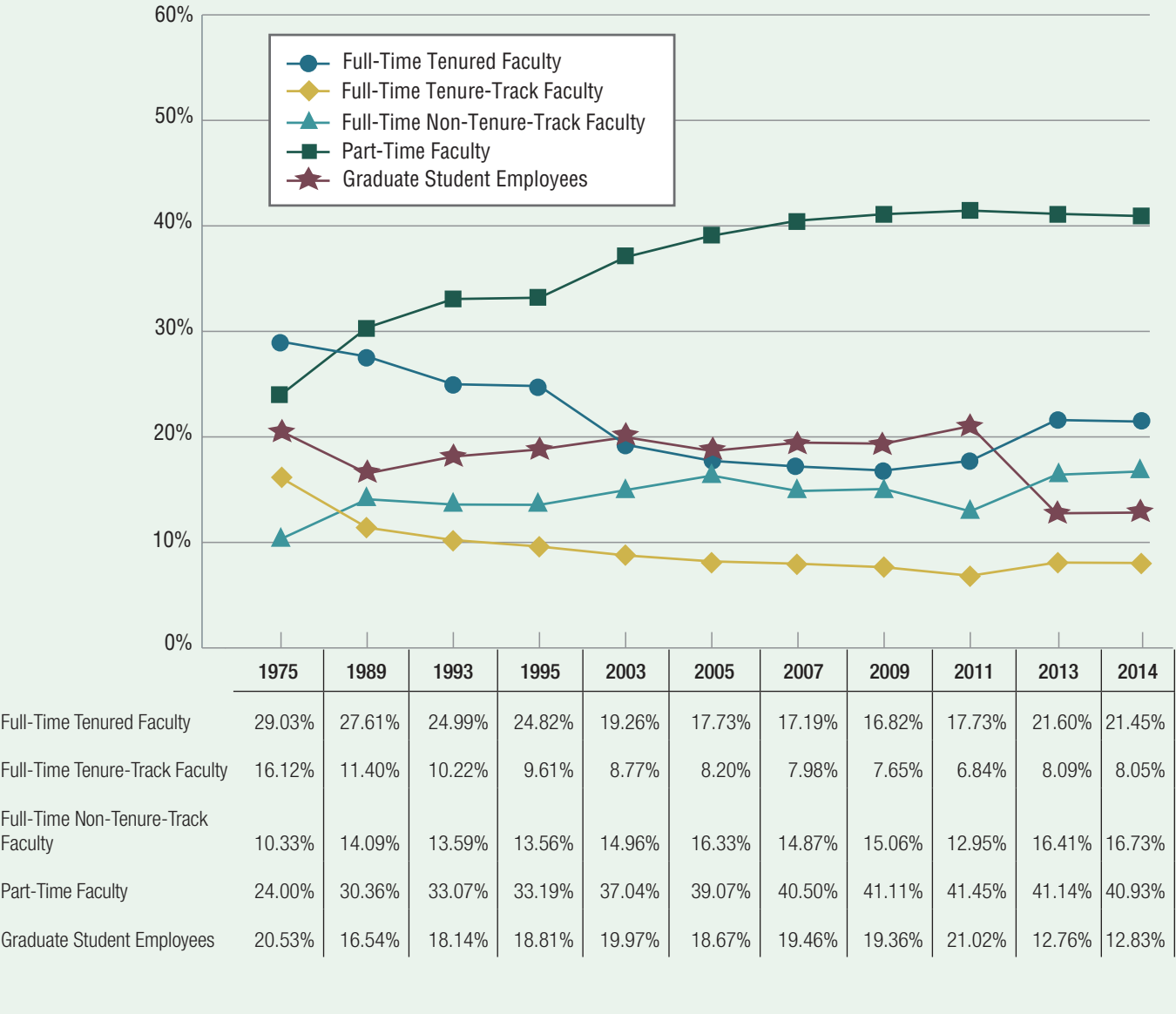
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IMPACT OF THE GROWTH IN PART-TIME FACULTY POSITIONS

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.¹²

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.¹³

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.¹⁴ 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.”¹⁵ 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.¹⁶

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

<div>TABLE B</div> <div>Effect of Part- or Full-Time Appointment on Instructional and Research Activities</div>		
Statement: “My appointment type has influenced the way I . . . ”	Part-Time (% Agree)	Full-Time (% Agree)
Instructional Activities		
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
Research Activities		
Select research topics to study***	41	56
Present research at professional conferences***	46	58
Publish scholarly research (articles, book chapters, manuscripts, etc.)***	45	65
<div>Note: P-Value = *** <.001, ** .01, * .05</div> <div>Source: AAUP Research Office.</div>		

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.¹⁷

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

<div>TABLE C</div> <div>Effect of Part- or Full-Time Appointment on Willingness to Take Risk and Perceptions of Institutional Support</div>		
Statement	Part-Time (% Agree)	Full-Time (% Agree)
Willingness to Take Risk		
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
Perceptions of Institutional Support		
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
<div>Note: P-Value = *** <.001, ** .01, * .05</div> <div>Source: AAUP Research Office.</div>		

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.¹⁸ 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

<div>TABLE D</div> <div>Costs of Converting Part-Time to Full-Time Positions, Three Selected Institutions and National Average</div>									
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	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
Ohio State University—Main Campus	1,144	34.61%	26.0%	\$107,325	2.51%	1.26%	\$43,954	1.03%	0.51%
Saint Leo University	1,129	87.25%	16.7%	\$70,487	52.05%	26.05%	\$69,572	51.38%	25.71%
SUNY-Oswego	228	40.07%	35.3%	\$78,745	10.19%	5.09%	\$64,502	8.34%	4.17%
National Average	267	47.19%	31.2%	\$85,389	16.93%	8.46%	\$60,405	9.13%	4.56%
<p><i>Note:</i> 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.</p> <p><i>Source:</i> AAUP Research Office.</p>									

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 hypso-graphic 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.”

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.¹⁹ 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.”²⁰ 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.²¹ 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.²² 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 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.²³ 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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NOTES

1. College Board, *Trends in College Pricing 2015* (New York: College Board, 2015), <http://trends.collegeboard.org/sites/default/files/trends-college-pricing-web-final-508-2.pdf>.
2. Gallup and Purdue University, *Great Jobs, Great Lives: The Relationship between Student Debt, Experiences and Perceptions of College Worth* (Washington, DC: Gallup, 2015), http://www.gallup.com/file/services/185924/GPI_Report_2015_09.25.2015.pdf.
3. Amanda Griffith and Kevin Rask, “The Effect of Institutional Expenditures on Employment Outcomes and Earnings” (paper presentation, North Carolina State University Microeconomics Workshop Series, March 18, 2015), http://www4.ncsu.edu/~rghammon/workshop/S15_Griffith.pdf.
4. Phillip Dawson, Jacques van der Meer, Jane Skalicky, and Kym Crowley, “On the Effectiveness of Supplemental Instruction and Peer-Assisted Study Sessions Literature between 2001 and 2010,” *Review of Educational Research* 84 (2014): 609–39.
5. Sarah Lipsky, “Assessing Effectiveness of Peer Assistance Programming” (paper presentation, Twentieth International Conference on the First-Year Experience, Kona, HI, July 2007),

<http://www.sc.edu/fye/events/presentation/international/2007/download/pdf/47-PA.pdf>. See also the website of the International Center for Supplemental Instruction, <http://info.umkc.edu/si/>.

6. See, for example, Hans Joerg-Tiede, *University Reform: The Founding of the American Association of University Professors* (Baltimore: Johns Hopkins University Press, 2015); William Keast and John Macy, *Faculty Tenure: A Report and Recommendations by the Commission on Academic Tenure in Higher Education* (San Francisco: Jossey-Bass, 1973); and William Van Alstyne, *Freedom and Tenure in the Academy* (Durham, NC: Duke University Press, 1993).

7. Scott Jaschik, “Is Tenure Essential?,” *Inside Higher Ed*, January 6, 2016, <https://www.insidehighered.com/news/2016/01/06/private-college-presidents-draft-list-essential-qualities-institutions-leaves-tenure>.

8. Scott Jaschik and Doug Lederman, “The Inside Higher Ed Survey of College and University Chief Academic Officers,” *Inside Higher Ed*, January 22, 2016, <https://www.insidehighered.com/news/survey/2016-inside-higher-ed-survey-chief-academic-officers>.

9. Sol Gittleman, “Tenure Is Disappearing, But It’s What Made American Universities the Best in the World,” *Washington Post*, October 29, 2015, <https://www.washingtonpost.com/news/grade-point/wp/2015/10/29/tenure-is-disappearing-but-its-what-made-american-universities-the-best-in-the-world/>.

10. Liang Zhang, Ronald Ehrenberg, and Xiangmin Liu, *Changing Faculty Employment at Four-Year Colleges and Universities in the United States* (Bonn, Germany: Institute for the Study of Labor, 2015), <http://ftp.iza.org/dp9595.pdf>.

11. William Johnson and Sarah Turner, “Faculty without Students: Resource Allocation in Higher Education,” *Journal of Economic Perspectives* 32, no. 2 (2009): 169–89.

12. Eric Bettinger and Bridget Terry Long, *Do College Instructors Matter? The Effects of Adjuncts and Graduate Assistants on Students’ Interests and Success* (Cambridge, MA: National Bureau of Economic Research, 2004), <http://www.nber.org/papers/w10370>; Ronald Ehrenberg and Liang Zhang, *Do Tenured and Tenure-Track Faculty Matter?* (Cambridge, MA: National Bureau of Economic Research, 2004), <http://www.nber.org/papers/w10695.pdf>; Zhang, Ehrenberg, and Liu, *Changing Faculty Employment*.

13. Ernst Benjamin, “How Over-reliance on Contingent Appointments Diminishes Faculty Involvement in Student Learning,” *Peer Review*, Fall 2002, <http://www.aacu.org/publications-research/periodicals/how-over-reliance-contingent-appointments-diminishes-faculty>.

14. Griffith and Rask, “Institutional Expenditures.”

15. Justin Miller, “Faculty Join Fast Food in the Fight for \$15,” *American Prospect*, April 16, 2015, <http://prospect.org/article/faculty-join-fast-food-fight-15>.

16. Gretchen Reevy and Grace Deason, “Predictors of Depression, Stress, and Anxiety among Non-Tenure Track

Faculty,” *Frontiers in Psychology*, July 8, 2014, <http://journal.frontiersin.org/article/10.3389/fpsyg.2014.00701/full>.

17. To test what, if any, differences exist between full- and part-time faculty, a series of chi-square (X²) tests were conducted on each item; statistical significance is reported at standard levels (p=.001, .01, .05).

18. Jacob Foster, Andrey Rzhetsky, and James Evans, “Tradition and Innovation in Scientists’ Research Strategies,” *American Sociological Review*, September 1, 2015, <http://asr.sagepub.com/content/early/2015/08/12/0003122415601618.full.pdf+html>.

19. Donna Desrochers and Steven Hulbert, *Trends in College Spending: 2003–2013, Where Does the Money Come From? Where Does It Go? What Does It Buy?* (Washington, DC: American Institutes for Research, 2015).

20. John Griswold, William Jarvis, Kyle Kuhnel, Kenneth Redd, and Kellee Edmonds, “Building on 11.7 Percent Gain in FY 2013, Educational Endowments’ Investment Returns Averaged 15.5 Percent in FY2014” (press release, National Association of College and University Business Officers, January 29, 2015).

21. Andrea Gallo, “Why Are Athletics Largely Immune to Higher Education Budget Cuts?,” *Advocate*, January 29, 2016, <http://theadvocate.com/sports/latestsports/14345658-32/special-report-why-are-athletics-largely-immune-to-higher-education-budget-cuts>; Brad Wolverton, Ben Hallman, Shane Shifflett, and Sandhya Kambhampati, “The \$10-Billion Sports Tab: How College Students Are Funding the Athletics Arms Race,” *Chronicle of Higher Education*, November 15, 2015, http://chronicle.com/interactives/ncaa-subsidies-main#id=table_2014.

22. Tom Shaver and Sarah Collins, *Adding Course Access to Your Student Success* (Overland Park, KS: Ad Astra Information Systems, 2015).

23. Jaschik and Lederman, “Inside Higher Ed Survey.”