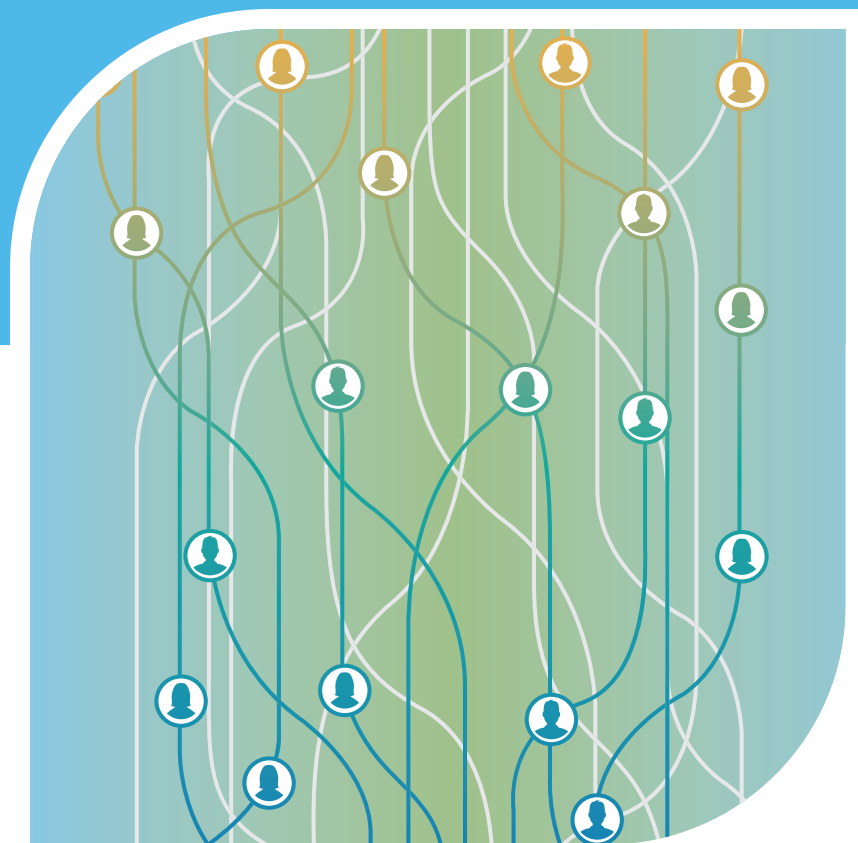


Cost Savings or Cost Shifting? The Relationship Between Part-Time Contingent Faculty and Institutional Spending

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About this Research

Colleges and universities are relying heavily on contingent faculty to increase flexibility and reduce costs, yet little is known about whether such savings actually result in lower overall costs or if the money saved on instruction is being spent in other areas.

This paper, second in a two-part series, documents the financial trade-offs being made by institutions as they hire more part-time contingent faculty. To better inform campus leaders, the TIAA Institute sponsored this research, conducted by Steven Hurlburt and Michael McGarrah of the Delta Cost Project at American Institutes for Research*, to analyze the relationships between concentrations of part-time contingent faculty and institutional spending on instruction, benefits, overall compensation, and total E&R (education and related) spending. Among their many findings is the fact that while reliance on part-time contingent faculty has helped constrain instructional compensation costs, that approach has not translated into the same level of savings with regard to total compensation costs for all employees.

About the TIAA Institute

The TIAA Institute helps advance the ways individuals and institutions plan for financial security and organizational effectiveness. The Institute conducts in-depth research, provides access to a network of thought leaders, and enables those it serves to anticipate trends, plan future strategies and maximize opportunities for success. To learn more, visit www.tiaainstitute.org.

About the Delta Cost Project at AIR

The Delta Cost Project at American Institutes for Research (AIR) provides data and tools to help higher education administrators and policymakers improve college affordability by controlling institutional costs and increasing productivity. The work is animated by the belief that college costs can be contained without sacrificing access or educational quality through better use of data to inform strategic decision making. For more information about the Delta Cost Project, visit www.deltacostproject.org and for more information about American Institutes for Research, visit www.air.org.

* Since this paper was written, Michael McGarrah has moved from the American Institutes for Research to the Aspen Institute.

Introduction

Over the past several decades, colleges and universities have increasingly turned to contingent faculty (i.e., non-tenure-track faculty)—and, in particular, part-time faculty—to meet their instructional demands. Since 1975, the number of contingent faculty has nearly doubled as a proportion of all instructional staff, while the proportion of tenured and tenure-track faculty has been cut in half (Barnshaw & Dunietz, 2015). By 2013, full- and part-time contingent faculty accounted for at least half of all instructional faculty across all types of institutions of higher education.

The growing reliance on contingent faculty is commonly viewed as a cost-savings measure. Indeed, replacing tenured and tenure-track faculty with contingent faculty could quite reasonably be expected to cut institutional costs, as full-time contingent instructors earn 26% less per hour, and part-time contingent workers earn 64% less per hour than their tenured or tenure-track counterparts. Furthermore, contingent faculty typically receive fewer or no benefits (Monks, 2007). Salaries of tenure and tenure-track faculty range from \$60,000 to \$100,000 per year, whereas the average annual salary of full-time contingent faculty is \$47,500. Part-time faculty—who frequently are compensated per class or semester—earn an average of only \$2,700 per course, or, extrapolating to a full course load of eight classes, only \$21,000 per year, without benefits (Curtis & Thornton, 2013). Recent work by the Delta Cost Project, however, suggests that cost savings from the increased use of part-time contingent faculty have been offset by rising benefit costs and increased hiring of administrative staff (Desrochers & Kirshstein, 2014).¹

To promote a better understanding of the mechanics behind these financial trade-offs, this brief, the second in a two-part series, investigates how the concentration of part-time contingent faculty—and the changing concentration of these faculty—relate to various measures of institutional spending. Because part-time instructors represent a larger source of cost savings than full-time non-tenure-track faculty, the brief focuses on the use of part-time contingent faculty rather than on the total pool of contingent faculty. The first part of this brief examines institutional spending in relation to the concentration of part-time contingent faculty during the 2012–13 academic year (the most recent year for which Delta Cost data are available); the second part considers how shifts in the use of part-time contingent faculty relate to changes in institutional spending between 2003 and 2013. Each section begins by examining the direct effects of the use of part-time contingent faculty upon faculty salary and benefits, followed by a discussion of the extent to which savings in faculty compensation translate to reductions in total compensation for all employees and, ultimately, in education and related (E&R) spending, the core measure of spending on academics (which includes instruction, student services, and a portion of overhead expenses).

1. Many of the new professional positions added by colleges and universities in the past decade are related to student services, which includes a wide-ranging set of activities, such as recruitment, admissions, financial aid, registrars, student counseling, student organizations, and athletics. Because of the broad scope of student services, it is unclear what specific types of services these student support staff provide and, consequently, whether these new positions represent reasonable investments in directly supporting student success or unnecessary “administrative bloat.”

Any opinions expressed herein are those of the authors, and do not necessarily represent the views of TIAA, the TIAA Institute or any other organization with which the authors are affiliated.

By 2013, full- and part-time contingent faculty accounted for **at least half of all instructional faculty.**

Key Takeaways

- **A clear relationship exists between the use of part-time contingent faculty and cost savings in instructional salaries and benefits for faculty, both cross-sectionally and over time.** In 2013, across all types of institutions, those with high shares of part-time faculty relative to other institutions of the same type realized lower instructional salary and benefit outlays per full-time equivalent (FTE) faculty, with the largest differences observed among private four-year colleges and universities. Likewise, institutions that made substantial increases in their use of part-time contingent faculty between 2003 and 2013 realized declines in instructional salary outlays per FTE faculty, and either smaller increases or declines in instructional benefit outlays per FTE faculty.
- **Although relying on part-time contingent faculty has helped to constrain compensation costs for faculty, cost savings in total compensation for all employees were more modest.** In 2013, the percentage difference in total compensation per FTE *employee* between institutions with high shares of part-time faculty and those with low shares was smaller than the percentage difference in total compensation costs per FTE *faculty* across all types of institutions. From 2003 to 2013, however, changes in total compensation for all employees outpaced changes in instructional compensation for faculty.
- **A review of changes in overall E&R spending reveals differences in the cost structures of colleges and universities that are shifting most heavily to part-time contingent faculty.** Public four-year institutions appeared to use savings in instructional costs to increase expenditures on administration and maintenance. In contrast, private four-year and public two-year institutions showed little sign of cost shifting, reporting not only flat changes or declines in instructional spending but also limited growth or declines in administration and maintenance expenditures.

Data

The data in this brief come from the Delta Cost Project Database, 1987–2013. This includes data reported by institutions to the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS), which have been harmonized (when possible) to account for survey changes over time. Staffing data from the 2002 Fall Employees by Assigned Position (EAP) Survey (i.e., 2002–03 school year, or 2003 academic year) were appended to the Delta Cost Project Database to provide more detailed staffing information.

The brief focuses on the 10-year period from 2003 to 2013. Findings are presented for public and private, nonprofit four-year institutions and public community colleges.

Definitions of the spending categories used in this brief are provided below.

- **Instructional compensation.** Salaries and benefits (e.g., insurance or retirement benefits) compensation for academic instruction, occupational and vocational instruction, community education, preparatory and adult basic education, and remedial and tutorial instruction conducted by the teaching faculty for the institution's students.
- **Total compensation.** Total operating and non-operating salary and benefit expenses for all employees.
- **Education and related (E&R) spending.** The total spending on direct educational, or academic, costs; excludes spending on sponsored research and public service. E&R expenses include spending on:
 - **Instruction.** Activities directly related to instruction, including faculty salaries and benefits, office supplies, the administration of academic departments, and the proportion of faculty salaries going to departmental research and public service.
 - **Student services.** Noninstructional student-related activities, such as admissions, registrar services, career counseling, financial aid administration, student organizations, and intramural athletics. Costs of recruitment, for example, are typically embedded within student services.
 - **Academic and institutional support, and operations and maintenance (also referred to as administrative and maintenance).** The education-related portion^a of spending on academic support, institutional support, and operations and maintenance.

^a. The education-related portion is defined as the instruction and student services portion of spending on instruction, student services, research, and public service.

Institutional Spending and the Concentration of Part-Time Contingent Faculty

To examine the relationship between the concentration of part-time contingent faculty and institutional spending, the first part of this brief organizes colleges and universities within each institutional group (public four-year, private four-year, and public two-year) into three categories based on part-time contingent faculty share relative to their peers: (1) those with a low concentration of part-time contingent faculty; (2) those with a moderate concentration of part-time contingent faculty; and (3) those with a high concentration of part-time contingent faculty (see Table 1). For a description of the institutional characteristics for each category, refer to Appendix Table A-1.

Table 1. Number of institutions, by part-time contingent faculty share category, FY 2013

	Low share		Moderate share		High share	
	N of institutions	Part-time contingent share	N of institution	Part-time contingent share	N of institution	Part-time contingent share
Public 4-year	161	<11%	200	11-22%	120	>22%
Private 4-year	335	<15%	339	15-33%	250	>33%
Public 2-year	237	<32%	319	32-48%	281	>48%

Note: Institutional classifications are based on the means and standard deviations within each institutional group. The *low* category is defined as those institutions whose part-time contingent faculty share was more than 0.5 standard deviations below the group mean; the *moderate* category, as those whose part-time contingent faculty share was within 0.5 standard deviations of the group mean; and the *high* category, as those whose part-time contingent faculty share was more than 0.5 standard deviations above the group mean.

Source: Delta Cost Project IPEDS Database 1987–2013, unmatched set.

A clear pattern of cost savings in instructional salaries and benefits exists as a result of the use of part-time faculty.

Instructional salary and benefit spending

Instructional salaries and benefits are two areas of spending expected to be the most directly affected by the concentration of part-time contingent faculty, and, indeed, a clear pattern of cost savings in these areas exists as a result of the use of part-time faculty. As Figure 1 on the next page shows, in 2013, across all types of institutions, those with high shares of part-time faculty relative to other institutions of the same type realized lower instructional salary outlays per FTE faculty, with the largest differences observed among private four-year colleges and universities.²

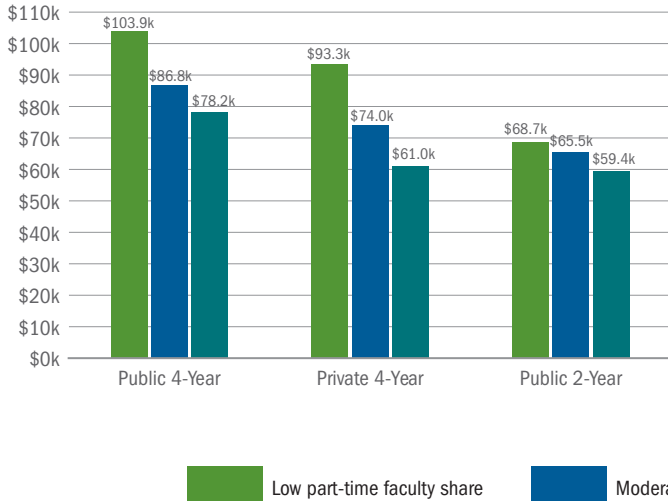
2. For public and private four-year institutions, differences in instructional salary outlays between those institutions with the highest share of part-time contingent faculty and those with the lowest share reflect not only variation in the mix of part-time contingent faculty but also differences in the overall faculty salary structure. Compared to institutions with low shares of part-time faculty, average salaries for full-time faculty were 15% lower at institutions with high shares among private four-year institutions (\$58,400 versus \$68,900) and 8% lower among public four-year institutions (\$66,800 versus \$72,500).

At private four-year colleges and universities, average instructional salary outlays per FTE faculty were more than one-third less at institutions with the largest share of part-time faculty compared to those with the smallest shares (\$61,000 versus \$93,300). Among public four-year colleges and universities, those with the largest part-time faculty shares spent, on average, a quarter less than the amount that those with the lowest part-time faculty shares spent on instructional salary outlays per FTE faculty (\$78,200 versus \$103,900). At community colleges, the differences were flatter; however, those with the largest share of part-time faculty still spent 13% less than those with the smallest share (\$59,400 versus \$68,700).

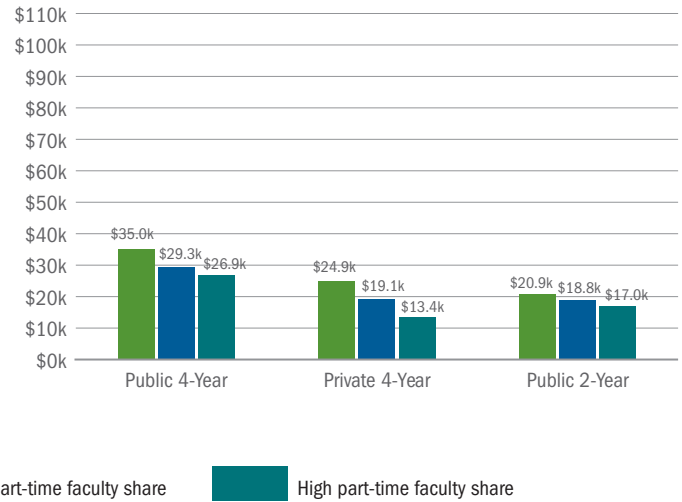
There is also evidence that colleges that rely more heavily on part-time contingent faculty have managed to control some of their benefit costs.³ Because part-time positions usually do not come with benefits, instructional fringe benefit outlays per FTE faculty were lower among institutions with high shares of part-time faculty relative to their peers across all types of institutions (see Table 2 on page 7).

Figure 1. As the concentration of part-time contingent faculty increases, instructional compensation costs decrease

Average instructional salary outlays per FTE faculty, by part-time faculty share category, FY 2013



Average instructional benefit outlays per FTE faculty, by part-time faculty share category, FY 2013



Source: Delta Cost Project IPEDS Database 1987–2013, unmatched set.

3. Benefit costs include medical and dental plans, retirement contributions, Social Security and unemployment insurance taxes, life and disability insurance plans, and tuition and housing benefits.

Private four-year institutions with high shares spent, on average, 46% less than those with low part-time faculty shares on instructional benefit outlays per FTE faculty (\$13,400 versus \$24,900). Among public four-year colleges, average instructional benefit outlays per FTE faculty were 23% less at those institutions with the largest share of part-time faculty compared to those with the smallest shares (\$26,900 versus \$35,000). At public two-year colleges, differences in instructional benefit outlays were not as marked: Community colleges with high shares of part-time faculty spent, on average, 19% less than those with low part-time faculty shares on instructional benefit outlays per FTE faculty (\$17,000 versus \$20,900).

Instructional and total employee compensation costs

Although reliance on part-time contingent faculty has helped constrain instructional compensation costs, it has not translated into the same level of savings vis-à-vis total compensation for all employees. As Table 2 on the next page shows, among private four-year colleges and universities, the percentage difference in total compensation per FTE *employee* between institutions with high shares of part-time faculty and those with low shares was 19%, compared to 37% for compensation per FTE *faculty*. At public four-year institutions, the percentage difference between institutions with high versus low shares of part-time faculty was 14% for total compensation costs per FTE employee and 24% for compensation per FTE faculty. Total compensation costs per FTE employee were fairly stable among public two-year colleges, suggesting little relationship to the share of part-time faculty. This may be due, in part, to the higher shares of part-time contingent faculty across all three categories, including those in the low-share group.

Reliance on part-time contingent faculty has helped constrain instructional compensation costs.

It has not, however, translated into the same level of savings with regard to total compensation for all employees.

Table 2. Cost savings resulting from higher shares of part-time contingent faculty were smaller for total compensation costs

Average compensation measures, by part-time contingent faculty share category, FY 2013

	Per FTE faculty			Per FTE employee ^a		
	Salary outlays	Benefit outlays	Total compensation	Salary outlays	Benefit outlays	Total compensation
Public 4-year						
Low share	\$103,936	\$35,034	\$138,970	\$74,402	\$25,857	\$100,260
Moderate share	\$86,835	\$29,294	\$116,129	\$66,617	\$23,277	\$89,894
High share	\$78,192	\$26,944	\$105,136	\$63,604	\$23,098	\$86,702
<i>Percent difference (Low vs. high share)</i>	-25%	-23%	-24%	-15%	-11%	-14%
Private 4-year						
Low share	\$93,281	\$24,881	\$118,162	\$63,766	\$18,016	\$81,782
Moderate share	\$74,023	\$19,084	\$93,107	\$58,969	\$15,874	\$74,842
High share	\$61,007	\$13,448	\$74,455	\$53,186	\$12,851	\$66,036
<i>Percent difference (Low vs. high share)</i>	-35%	-46%	-37%	-17%	-29%	-19%
Public 2-year						
Low share	\$68,663	\$20,946	\$89,609	\$53,299	\$17,852	\$71,151
Moderate share	\$65,538	\$18,837	\$84,375	\$55,701	\$18,502	\$74,202
High share	\$59,394	\$16,960	\$76,353	\$52,128	\$17,430	\$69,558
<i>Percent difference (Low vs. high share)</i>	-13%	-19%	-15%	-2%	-2%	-2%

^a Per-FTE employee calculations include all staff except part-time graduate assistants/instructors.

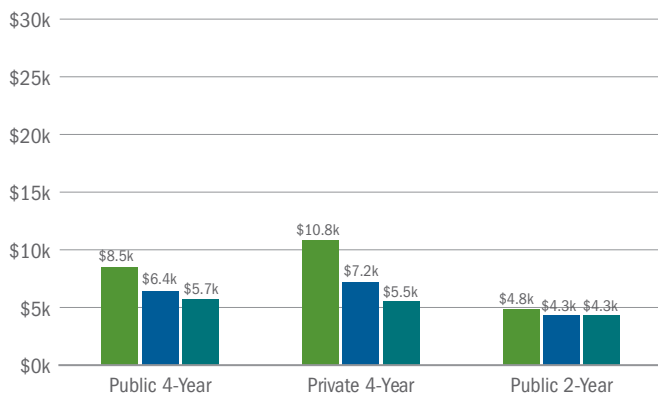
Source: Delta Cost Project IPEDS Database 1987–2013, unmatched set.

There are two potential reasons for these observations: the faculty share of total employees or the compensation for nonfaculty staff. The former, however, does not appear to be a contributing factor. Within each type of institution, as the concentration of part-time faculty increases, the instructional faculty share of total FTE employees increases as well (see Appendix Table A-1). Presumably, these increases would have a downward effect on total compensation per FTE employee. That is, as the share of lower-cost faculty increases, average compensation costs per FTE employee should decline.

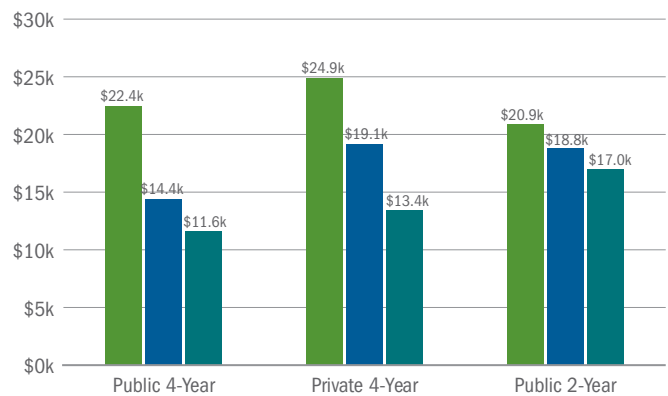
Instead, for public and private four-year colleges and universities, the smaller differences in total compensation costs per FTE employee stem largely from smaller differences in nonfaculty compensation costs across institutions of varying part-time contingent faculty shares.⁴ At public community colleges, nonfaculty compensation costs were higher among institutions with high shares of part-time faculty, compared to institutions with lower shares.

Figure 2. Institutions with higher concentrations of part-time contingent faculty had lower compensation costs per FTE student, especially among public and private four-year institutions

Average instructional compensation per FTE student, by part-time faculty share category, FY 2013



Average total compensation per FTE student, by part-time faculty share category, FY 2013



Low part-time faculty share
 Moderate part-time faculty share
 High part-time faculty share

Source: Delta Cost Project IPEDS Database 1987–2013, unmatched set.

4. Additional analyses of the data show that, compared to institutions with low shares of part-time contingent faculty, compensation costs per FTE nonfaculty staff were 11% lower at private institutions with high shares (versus 19% lower for total compensation costs per FTE employee), and compensation costs per FTE nonfaculty staff were 13% lower at public institutions with high shares (versus 14% lower for total compensation costs per FTE employee).

An examination of instructional and compensation costs as they relate to student enrollment (see Figure 2 on previous page) shows that cost savings realized from relying more heavily on part-time contingent faculty were noticeably larger *per FTE student*, in terms of both instructional and total compensation costs across public and private four-year colleges and universities due to higher student-faculty and student-employee ratios among institutions with high part-time faculty shares.⁵ Among public four-year institutions, instructional compensation costs per FTE student in institutions with high part-time faculty shares were 33% lower than instructional compensation costs in those with low shares (\$5,700 versus \$8,500), and total compensation costs per FTE student were 52% lower (\$11,600 versus \$22,400). Among private four-year institutions, instructional compensation costs per FTE student in institutions with high part-time faculty shares were 49% lower than instructional compensation costs in those with low shares (\$5,500 versus \$10,800), and total compensation costs per FTE student were 46% lower (\$13,400 versus \$24,900). At public two-year institutions, differences in compensation costs per FTE student were much less pronounced: Compared to those with low shares of part-time contingent faculty, instructional compensation per FTE student at community colleges with high shares was 12% lower (\$4,300 versus \$4,800), and total compensation per FTE student was 19% lower (\$17,000 versus \$20,900).

Education and related spending

A review of how compensation trends translate into overall E&R spending—the core measure of spending on academics (which includes instruction, student services, and a portion of administrative and maintenance expenses)—shows that institutions with higher shares of part-time contingent faculty spent a smaller share of their overall E&R budget on instruction. As Figure 3 on the next page illustrates, among public four-year institutions, those with high shares of part-time faculty dedicated, on average, 51% of their E&R spending on instruction compared to 57% for institutions with low shares. At private four-year institutions, instructional spending accounted for 40% of total E&R spending among institutions with high shares of part-time faculty versus 46% for institutions with low shares. Instructional shares of E&R spending were comparable among public two-year institutions, with an average between 49% among those with high shares and 51% among those with low shares. In addition, institutions with higher shares of part-time contingent faculty had lower overall cost structures, particularly among public and private four-year colleges and universities. These observed differences in cost structure suggest that institutions with high shares of part-time contingent faculty perhaps have fewer financial resources.⁶

5. Among public four-year institutions with high shares of part-time faculty, student-faculty ratios were 7% higher and student-employee ratios were 40% higher than those with low shares. Among private four-year institutions with high shares of part-time faculty, student-faculty ratios were 8% higher and student-employee ratios were 46% higher than those with low shares. See Appendix Table A-1 for more information.
6. For public and private-four year institutions, there are differences in the composition of institutions by Carnegie Classification among the part-time faculty share categories (see Appendix Figure A-1), with those in the low category consisting of institutions that generally have higher spending patterns. Among public four-year institutions, 49% of institutions with low shares of part-time faculty were public research institutions, versus 13% of those with high shares. Private four-year institutions with low shares of part-time faculty were predominately bachelor's colleges (69%), whereas those institutions with high shares were primarily master's institutions. Although these differences exist, additional analyses show the same pattern in E&R spending for each type of institution by Carnegie Classification, with the exception of public master's colleges.



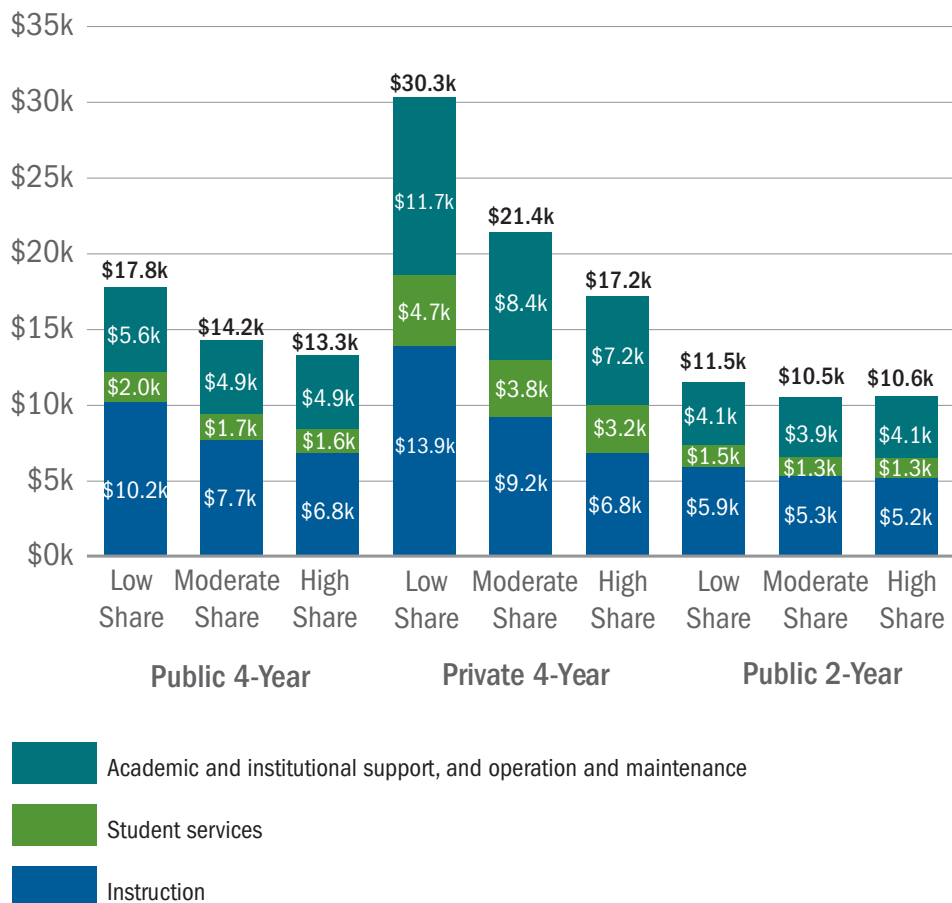
Institutions with higher shares of part-time contingent faculty spent a smaller share of their overall E&R budget on instruction.

They also had lower overall cost structures, suggesting they have fewer financial resources.

Among private four-year institutions, those with higher shares of part-time faculty had considerably lower costs per FTE student than those with lower shares for each component of E&R spending, with spending on student services 32% less (\$3,200 versus \$4,700) and administrative and maintenance costs 39% less (\$7,200 versus \$11,700). At public four-year institutions, although lower E&R spending was driven largely by lower instructional spending, student services costs were 19% lower at institutions with high part-time faculty shares compared to those with low shares (\$1,600 versus \$2,000), and administrative and maintenance costs were 12% lower (\$4,900 versus \$5,600). Spending patterns by share of part-time faculty were, again, much flatter among public community colleges.

Figure 3. As the share of part-time contingent faculty increases, both overall E&R spending and the instructional share of E&R costs decline

Average education and related spending per FTE student, by part-time contingent faculty share category, FY 2013



Source: Delta Cost Project IPEDS Database 1987–2013, unmatched set.

Institutional Spending and the Shifting Composition of Part-Time Contingent Faculty

The second part of this brief considers changes in spending in relation to changes in the composition of faculty during the period between 2003 and 2013 to examine whether the extent to which increased reliance on part-time faculty results in savings in instructional compensation, and whether these reductions in faculty compensation lead to declines in overall institutional spending or instead allow for spending to increase in other areas. Within each type of institution, colleges and universities were divided into three categories based on growth relative to their peers: (1) those with little to no growth in the share of part-time contingent faculty; (2) those with moderate growth in the share of part-time contingent faculty; and (3) those with high growth in the share of part-time contingent faculty (see Table 3). For a description of the institutional characteristics for each category, refer to Appendix Table A-2.

Table 3. Number of institutions, by growth in part-time contingent faculty share category, FY 2003–2013

	Little to no growth		Moderate growth		High growth	
	N of institutions	Percentage-point change in part-time faculty share	N of institution	Percentage-point change in part-time faculty share	N of institution	Percentage-point change in part-time faculty share
Public 4-year	223	<1	176	1-7	378	>7
Private 4-year	451	<1	294	1-14	305	>14
Public 2-year	378	<1	305	1-12	147	>12

Note: Institutional classifications according to the change in part-time contingent faculty share of FTE faculty were developed within each institutional grouping, as follows: The *little-to-no-growth* category was defined as those institutions in which growth in the share of part-time contingent faculty was under 1 percentage point; the *moderate growth* category, as those in which growth in the share of part-time contingent faculty was between 1 percentage point and the group mean; and the *high-growth* category, as those institutions in which growth in the share of part-time contingent faculty exceeded the group mean.

Source: Delta Cost IPEDS Database 1987–2013, 11-year matched set; IPEDS Employees by Assigned Position Survey, 2003.

Larger growth in the use of part-time faculty was met with **lower increases or even declines in instructional benefit outlays.**

With the growth of part-time faculty, instructional compensation decreases, but total compensation actually increases.

This is likely the result of increases, or smaller declines, in compensation for nonfaculty.

Instructional and total employee compensation costs

Table 4 on the next page shows the clear link between increased reliance on part-time contingent faculty over time and savings in instructional salary and benefit outlays per FTE faculty. Across all types of institutions, those that made substantial increases in their use of part-time contingent faculty relative to other institutions of the same type realized declines in instructional salary outlays per FTE faculty between 2003 and 2013, with drops ranging between 13% and 27%.

Likewise, larger growth in the use of part-time faculty was met with lower increases or even declines in instructional benefit outlays. Among private four-year institutions, for instance, instructional benefit outlays declined by roughly 19% at institutions with high growth in part-time faculty compared to increases of 11% and 15% at those with moderate or little to no growth, respectively.

A comparison of total compensation of all employees to instructional compensation shows that while total compensation costs per FTE employee followed a similar pattern—with the rate of change in costs decreasing as growth in use of part-time faculty increases—changes in total compensation have generally outpaced changes in instructional compensation. As with the cross-sectional examination of compensation costs in the first half of the brief, this pattern is likely the result of increases, or smaller declines, in compensation for nonfaculty.

Total compensation costs per FTE employee have remained flat in public four-year institutions with large shifts to part-time faculty, likely the result of sizeable increases in benefit expenses. At private four-year institutions with large shifts, total compensation costs per FTE employee have declined, but at a slower rate than declines in instructional compensation per FTE faculty. At public two-year colleges, growth in compensation per FTE faculty outpaced total compensation per FTE employee at those institutions with little to no growth in part-time faculty (30% versus 23%) and was equal among those with moderate growth in part-time faculty (16%). Public two-year institutions with high growth in the share of part-time faculty saw declines in total compensation per FTE employee, though at a lower rate than declines in compensation per FTE faculty (-1.4% versus -5%).

Table 4. Institutions shifting more aggressively to part-time contingent faculty realized slower growth or declines in compensation for all employees, but these changes were more modest than when only instructional costs were evaluated

Percent change in compensation measures, by growth in part-time contingent faculty share category, FY 2003–FY 2013

	Per FTE faculty			Per FTE employee		
	Salary outlays	Benefit outlays	Total compensation	Salary outlays	Benefit outlays	Total compensation
Public 4-year						
Little to no growth	-0.3%	35.7%	10.5%	20.8%	40.9%	29.5%
Moderate growth	-1.7%	39.3%	10.1%	1.8%	38.6%	13.6%
High growth	-12.7%	6.5%	-9.0%	-4.6%	19.2%	0.2%
Private 4-year						
Little to no growth	6.6%	15.3%	8.3%	1.5%	10.0%	3.4%
Moderate growth	-1.4%	10.7%	0.9%	3.2%	14.6%	5.6%
High growth	-26.6%	-19.4%	-25.3%	-9.9%	-2.7%	-8.1%
Public 2-year						
Little to no growth	8.7%	49.3%	29.7%	1.5%	39.8%	22.8%
Moderate growth	-2.7%	31.6%	16.4%	-3.7%	29.3%	16.4%
High growth	-26.4%	-2.5%	-14.4%	-18.9%	4.7%	-4.7%

Note: All data were converted to 2013 dollars before the percent change was calculated. Salary and compensation outlays are reported per FTE employee, but because most part-time faculty/staff are not eligible for benefits, benefit outlays are shown per full-time employee. Per-FTE employee calculations exclude part-time graduate assistants/instructors.

Source: Delta Cost IPEDS Database 1987–2013, 11-year matched set; IPEDS Employees by Assigned Position Survey, 2003.

Private four-year and public two-year institutions with the highest growth in part-time faculty saw flat changes or declines in instructional spending and also had to reduce growth or cut back in administration and maintenance.

Education and related spending

For private four-year and public two-year institutions, changes in overall E&R spending followed a pattern similar to the trends in compensation costs, with E&R expenses rising more slowly among institutions that shifted more aggressively to part-time contingent faculty, as Figure 4 on the next page illustrates. Between 2003 and 2013, E&R spending at private four-year institutions increased, on average, by 4% among those institutions with large increases in the part-time faculty share, compared to 13% among those with little to no growth. At public community colleges, institutions with high growth increased E&R spending by 1% versus 6% at those with little to no growth.

Differences in longitudinal spending patterns indicate that those institutions doing the most shifting to part-time faculty have been successful in controlling E&R costs, but it is unclear whether this is the result of strategic decisions to improve cost efficiency or necessary austerity measures. Private four-year and public two-year institutions with the highest growth in the part-time faculty share not only saw flat changes or declines in instructional spending but also had to reduce growth or cut back in the areas of administration and maintenance; by comparison, those institutions with little to no growth in part-time faculty did not do so.



Public four-year colleges and universities showed no relationship between E&R spending and shifts in faculty composition.



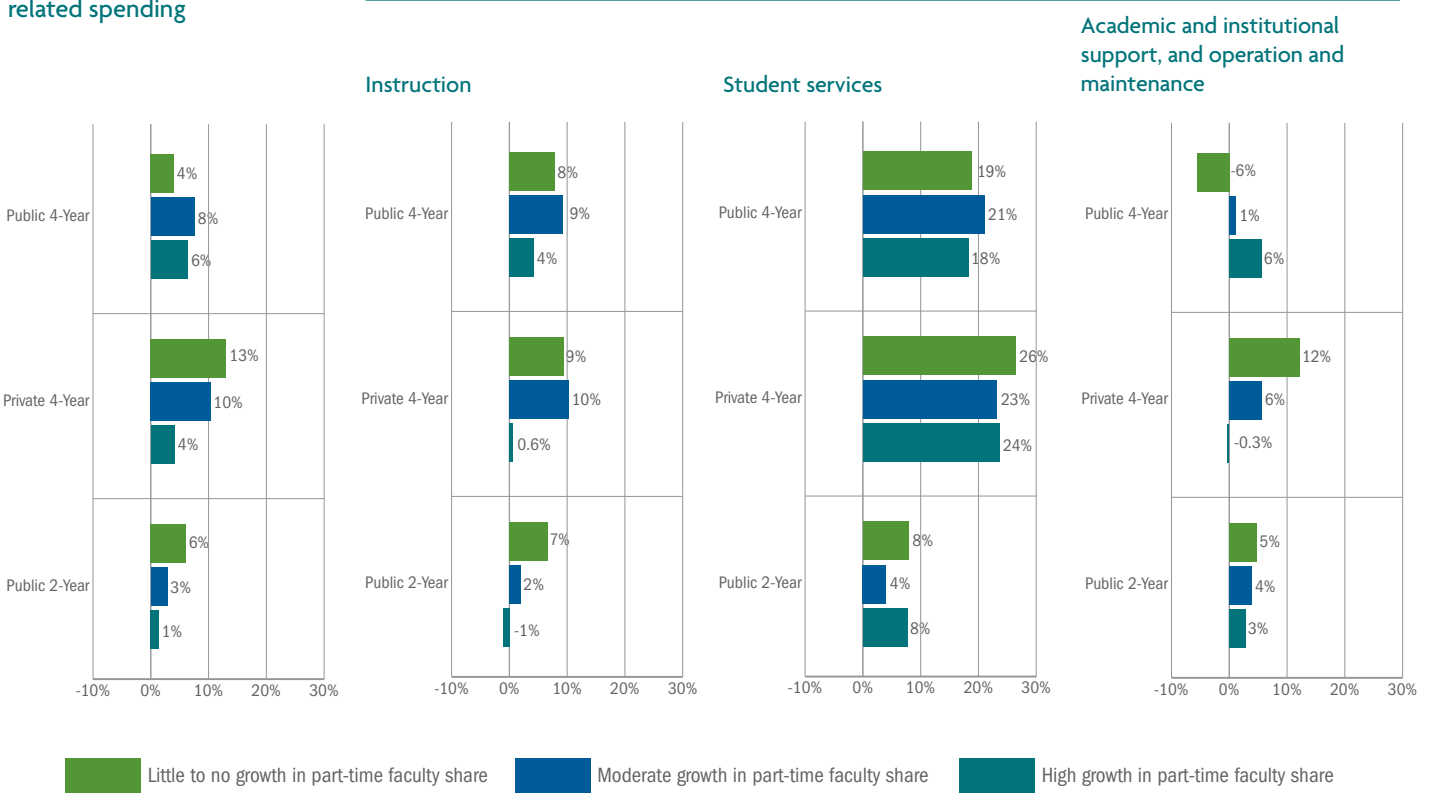
For public four-year colleges and universities, there was no relationship between E&R spending and shifts in faculty composition, as institutions of differing faculty patterns engaged in contrasting trade-offs within E&R spending. Specifically, those institutions with little to no growth in the part-time faculty share preserved spending on instruction, raising costs by 8% between 2003 and 2013, but cut back on administration and maintenance spending by -6%. In contrast, institutions with large growth in the part-time faculty share saw limited growth in instructional spending (4%) but raised administrative and maintenance spending by 6%. Although these two groups of institutions used different strategies, the result was a fairly similar growth pattern in terms of overall E&R spending.

Figure 4. Private four-year and public two-year institutions shifting aggressively to part-time contingent faculty saw slower growth in E&R spending, whereas public four-year institutions showed no relationship between E&R costs and shifts in faculty composition

Education and related spending per FTE student, by growth in part-time contingent faculty category, FY 2003–2013

Total education and related spending

Components of education and related spending



Source: Delta Cost IPEDS Database 1987–2013, 11-year matched set; IPEDS Employees by Assigned Position Survey, 2003.

Investment in student services was among the fastest growing spending categories. Growth in this area appears to be independent of changes in faculty composition.



Colleges and universities with high shares of part-time faculty reported lower faculty compensation costs.

However, nonfaculty costs—in particular, costs related to benefits—largely served to limit the scope of these savings.

Investment in student services was consistent across all types of institutions. As documented in Desrochers and Hurlburt (2016), student services—although accounting for a smaller share of E&R spending relative to instruction and administration—was among the fastest growing spending categories between 2003 and 2013. Growth in this area, however, appears to be independent of changes in faculty composition as well. Increases in spending on student services per FTE student over the past decade were fairly consistent across the three categories of shifts in part-time faculty: Public four-year colleges and universities boosted student services spending per FTE student by 18% to 21%, and private four-year institutions reported increases of 23% to 26%. At community colleges, increases in student service costs per FTE student ranged from 4% to 8%.

Conclusion

Growth in the use of part-time contingent faculty, and the realities of their working conditions and low salaries, have been well documented. Although colleges and universities are relying more heavily on part-time faculty to save money, no studies have been conducted to examine whether the money saved actually reduces overall spending or is simply being shifted to cover other expenses.

As this brief illustrates, across all types of institutions, colleges and universities with high shares of part-time faculty reported lower faculty compensation costs, and those with the largest growth in the use of part-time faculty over the past decade saw declines in faculty compensation. Cost savings from using part-time faculty were also apparent, although more modest, with respect to overall compensation costs per employee. In general, total compensation costs for colleges and universities with high shares of part-time faculty were lower compared to those with low shares, while, over time, overall compensation costs declined or remained flat for those with the largest growth in the use of part-time faculty. However, nonfaculty costs—in particular, costs related to benefits—largely served to limit the scope of these savings.

Ultimately, though, the issue is the extent to which relying on part-time contingent faculty has helped control institutional spending versus allowing spending to increase in other areas. A review of changes in overall E&R spending reveals enlightening information about the cost structures of colleges and universities that are shifting most heavily to part-time contingent faculty. Although public four-year institutions appeared to use savings in instructional costs to increase expenditures on administration and maintenance, private four-year and public two-year institutions showed little signs of cost shifting. Instead, institutions that are shifting aggressively to part-time faculty reported not only flat changes or declines in instructional spending but also limited growth or declines in administration and maintenance spending. By contrast, institutions with little to no growth in part-time faculty did not report similar outcomes. Whether these trends resulted from strategic financial decisions to control institutional spending or austerity measures, however, is beyond the scope of the data used for this brief.

As many observers have noted, higher education is a labor-intensive industry, which makes shifting to contingent faculty a natural cost-saving measure. This brief sheds light on what institutions actually do with the money saved. The reliance on lower paid part-time faculty is not likely to decline in the near future; therefore, colleges and universities must consider how their use affects not only their strategic financial decisions but also their ability to fulfill their institutional mission.

About the Authors

Steven Hurlburt is a senior researcher at American Institutes for Research (AIR) and director of the Delta Cost Project. His research focuses on postsecondary finance and education policy. Having contributed to the Delta Cost Project since its inception in 2007, he plays a leading role in producing the Delta Cost Project's annual *Trends in College Spending* reports and other publications on higher education finance. Hurlburt has presented on the Delta Cost Project for several professional organizations, including the Association for Institutional Research, the Association for the Study of Higher Education, and the Education Writers Association. In addition to his work on the Delta Cost Project, Hurlburt is currently co-director of the Bill & Melinda Gates Foundation's Frontier Set Evaluation—a four-year, mixed-methods evaluation of 35 two- and four-year higher education institutions simultaneously implementing a set of three student success initiatives.



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Appendix

Table A-1. Institutional characteristics, by part-time faculty share categories, FY 2013

	Public 4-year			Private 4-year			Public 2-year		
	Low share	Moderate share	High share	Low share	Moderate share	High share	Low share	Moderate share	High share
Carnegie Classification (percentage of institutions)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Research	49.4%	31.7%	12.5%	13.9%	11.8%	6.3%	N/A	N/A	N/A
Master's	35.8%	51.5%	63.3%	17.1%	39.7%	61.5%	N/A	N/A	N/A
Bachelor's	14.8%	16.8%	24.2%	69.0%	48.5%	32.1%	N/A	N/A	N/A
Associate's	N/A	N/A	N/A	N/A	N/A	N/A	100%	100%	100%
Flagship Status (number of institutions)	27	15	4	N/A	N/A	N/A	N/A	N/A	N/A
Region (percentage of institutions)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Northeast	11.1%	14.4%	29.2%	24.8%	27.4%	33.3%	2.1%	8.4%	24.5%
Midwest	25.9%	20.8%	22.5%	26.0%	27.4%	32.1%	24.1%	22.1%	23.8%
South	46.9%	48.5%	21.7%	40.4%	34.7%	18.7%	56.4%	41.7%	26.2%
West	16.0%	16.3%	26.7%	8.8%	10.6%	15.9%	17.4%	27.7%	25.5%
Urbanicity (percentage of institutions)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Urban	51.2%	19.8%	21.7%	40.1%	22.9%	12.7%	28.6%	24.6%	16.0%
Suburban	9.9%	27.7%	7.5%	23.9%	20.0%	8.3%	9.1%	20.2%	24.5%
Town	34.6%	3.5%	0.5%	28.0%	6.5%	0.3%	36.9%	20.9%	0.2%
Rural	4.3%	0.3%	0.3%	8.0%	0.2%	0.1%	25.3%	0.3%	0.2%
Admission Rate (institution average)	64.5%	66.7%	63.7%	55.2%	64.6%	67.7%	62.6%	85.9%	53.1%
Part-Time Share of Total Enrollment (institution average)	20.0%	24.0%	34.3%	11.7%	19.9%	34.2%	50.6%	58.0%	61.9%
Percentage of Undergraduates Receiving Pell Grants (institution average)	35.8%	40.1%	39.1%	32.9%	36.7%	42.2%	46.1%	41.6%	40.4%
FTE Student Enrollment (institution average)	16,107	12,063	11,514	3,302	3,396	2,858	3,194	5,644	5,635
Instructional Faculty Share of FTE Employees (institution average)	32%	37%	42%	33%	39%	44%	44%	47%	48%
Student/Faculty Ratio (institution average)	18.0	18.7	19.2	13.6	13.7	14.7	20.0	20.3	19.0
Student/Employee Ratio (institution average)	5.7	6.9	8.0	4.4	5.3	6.3	8.7	9.5	9.0

Source: Delta Cost Project IPEDS Database 1987–2013, unmatched set.

Table A-2. Institutional characteristics, by growth in part-time faculty share categories, FY 2013

	Public 4-year			Private 4-year			Public 2-year		
	Little to no growth	Moderate growth	High growth	Little to no growth	Moderate growth	High growth	Little to no growth	Moderate growth	High growth
Carnegie Classification (percentage of institutions)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Research	37.7%	31.3%	24.1%	13.2%	10.8%	6.2%	N/A	N/A	N/A
Master's	46.2%	56.8%	42.2%	33.3%	36.5%	51.6%	N/A	N/A	N/A
Bachelor's	16.1%	11.9%	33.7%	53.4%	52.7%	42.2%	N/A	N/A	N/A
Associate's	N/A	N/A	N/A	N/A	N/A	N/A	100%	100%	100%
Flagship Status (number of institutions)	25	17	4	N/A	N/A	N/A	N/A	N/A	N/A
Region (percentage of institutions)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Northeast	12.6%	19.9%	21.7%	31.1%	31.1%	14.9%	6.0%	15.1%	21.8%
Midwest	23.3%	22.2%	24.1%	24.9%	27.4%	39.1%	20.2%	23.9%	29.9%
South	40.4%	42.0%	42.2%	34.9%	30.7%	28.6%	49.2%	37.7%	25.2%
West	23.8%	15.9%	12.0%	9.1%	10.8%	17.4%	24.6%	23.3%	23.1%
Urbanicity (percentage of institutions)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Urban	51.1%	19.9%	27.7%	47.5%	24.7%	23.6%	31.7%	21.0%	23.8%
Suburban	17.9%	32.4%	7.2%	27.2%	22.0%	8.7%	22.3%	23.0%	22.4%
Town	26.0%	3.4%	0.8%	19.6%	9.1%	0.4%	24.6%	25.6%	0.5%
Rural	4.9%	0.4%	0.4%	5.7%	0.2%	0.2%	21.5%	0.2%	0.4%
Admission Rate (institution average)	65.6%	63.9%	67.4%	58.7%	63.1%	68.1%	72.5%	63.8%	73.5%
Part-Time Share of Total Enrollment (institution average)	25.1%	22.4%	30.7%	19.4%	18.7%	27.8%	58.1%	56.1%	57.0%
Percentage of Undergraduates Receiving Pell Grants (institution average)	36.8%	39.2%	41.2%	35.3%	35.9%	42.7%	43.0%	41.7%	42.6%
FTE Student Enrollment (institution average)	15,453	12,665	8,966	3,297	3,315	2,974	4,828	5,286	4,243
Instructional Faculty Share of FTE Employees (institution average)	36%	37%	38%	36%	38%	43%	46%	47%	48%
Student/Faculty Ratio (institution average)	18.9	18.4	18.3	13.8	13.3	15.4	20.2	19.8	18.3
Student/Employee Ratio (institution average)	6.8	6.8	7.0	4.9	5.1	6.4	9.2	9.3	

Source: Delta Cost IPEDS Database 1987–2013, 11-year matched set.



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