Like Nobody’s Business

An Insider’s Guide to How US University Finances Really Work
5. Human Resources

5.1 What is the organizational structure?

Early in my career as a central administrator, I was chatting with a senior faculty member, excitedly describing the facilities, coordination and support services that my unit provided to campus. He wasn’t buying it, and his inner curmudgeon kicked in as he said, “Humph, I don’t need all this extra stuff that wastes money, I can teach my students with just a table and chairs on the lawn.” At the time I bit my tongue and didn’t retort that he might need a tree to provide shade and shelter, not to mention all the invisible background support required to enable his supposedly administration-free fantasy. I’ve thought about our conversation many times since then, and from it I’ve developed a useful visual metaphor of how the supporting services of a university (boringly known as administration) support the core activity of learning: I imagine a silhouette in the style of a Japanese woodblock print, containing a student and teacher at the focal point under a tree, with its branches reaching over them to provide shade and its roots extending below, invisible to them but vital nonetheless.

While that image may be sentimental (and probably more appealing to support staff than faculty members), there are indeed many visible and not-so-visible functions that are necessary to enable the effective operation of a contemporary university. In most universities, budgets and people are organized in a more-or-less standard structure of functional units, each one typically a vice-presidential division reporting to the president (Figure 5.1). Naturally, academic affairs are the raison d’être for the university and this area includes all the colleges, schools and departments from Anthropology to Zoology, as well as services directly supporting the faculty and academic programs such as libraries and online education. Student affairs include recruitment and admissions as well as many co-curricular aspects of student life such as clubs, health, and residence halls. The research office is well-known in many academic units because it is the source of startup funds to help faculty obtain external research support, but in addition to supporting research with funds and services it also has an extensive set of compliance functions (human subjects protection, data privacy, animal care, laboratory safety, financial conflict of interest management, and more). In many institutions the Provost oversees the academic, student and research areas. The finance and facilities division manages

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the institution’s money, major capital projects and physical facilities (buildings, grounds, utilities, etc.). If the university has a hospital or works closely with one, there is typically a division handling the health sciences and it may include academic health programs (e.g., medicine, nursing) if they are not under academic affairs. Large athletic programs can include a dozen or more men’s and women’s sports in addition to their staff overseeing operations. The advancement area typically includes alumni relations and the fundraising operation. Finally, there are numerous other smaller administrative offices—a few examples of those are included in Figure 5.1.

![Figure 5.1. A generalized high-level functional organizational structure for a large research university, showing the major vice-presidential areas and selected subareas within each. These major divisions are the fundamental management, budget and employment units of the institution.](image)

As we saw in Chapter 3, employees and their benefits are the largest investment that a university makes every year. The human resources division often resides in the area overseeing business and financial operations, and its functions include employee recruitment and hiring, onboarding, compensation, payroll, training and compliance, and organizational development and effectiveness. The remaining sections in this chapter review the basic financial elements of the university’s human resources: the number and types of employees working on campus, their associated salaries and benefits, and related trends. In other words, in this chapter we’ll cover people and then in all the subsequent chapters of the book we will cover what they do, mirroring the organizational structure.
5.2 How many employees are there?

The Carnegie classification is tied to institutional size, and thus it is no surprise to see a clear scaling by number of employees across those categories (Figure 5.2). At the broadest level it is useful to group staff into full-time and part-time, instructional (including faculty) and non-instructional, as well as medical and non-medical. Staff numbers and salaries in medical schools are sufficiently high that they can skew the summary data despite being present in less than 10% of institutions overall. Medical schools are clustered principally in R1 institutions, with R1 privates having a higher proportion and therefore more medical employees (almost one third of the total) on average than at R1 publics.

![Figure 5.2. FY2018 employee headcount by full-time (FT) and part-time (PT) status as well as instructional and non-instructional position, for medical and non-medical staff, all averaged by Carnegie classification and control. Source: IPEDS (2020).](image)

Looking further at Figure 5.2, full-time employees make up 80% or more of the total at R1 and R2 schools and at private baccalaureate colleges, while that percentage is in the lower 70s at the smaller publics, and a little over 60% at the R3-M3 privates (parallel to their challenging financial position). Across almost all types of institution, non-instructional staff are in the majority, around three quarters of the total at the bigger schools and closer to one half at the smaller schools. Furthermore, non-instructional staff are mostly full-time (84% to 91% across types of schools). Among the instructional staff, part-time employees are more common. While part-time lecturers and instructors form less than one quarter of all instructional staff at R1 schools, their representation approaches and even exceeds half of all instructional staff at smaller institutions (see Section 5.6).
The total number of campus employees has been growing steadily (Figure 5.3) and is up 22% over the last sixteen years, although the COVID-19 pandemic has led to employee reductions (Bauman 2020). Within that overall growth, the number of full-time and part-time faculty has increased, as has the number of full-time support staff, although the number of part-time support staff has decreased slightly. The share of instructional to non-instructional staff has remained almost flat, with all instructional staff increasing slightly from 29% to 30% of total employees over this period.

![Figure 5.3. Unadjusted trends in employee headcount by full-time and part-time status as well as instructional and non-instructional staff, averaged across all eight types of institution by fiscal year. Source: IPEDS (2020).](image)

To properly evaluate the trend in employee numbers, we must account for student enrollment growth. Once we make that adjustment, we see that the ratio of employees per 1000 students\(^1\) has remained essentially unchanged over the data period (Figure 5.4) at about 200 on average for non-instructional staff, and increasing slightly from about 80 to 85 for instructional staff. Overall then, the number of employees has simply scaled with enrollment growth over time. However, within that essentially flat trend there are noteworthy patterns in employee trends among the various types of institutions, which we will explore in the rest of this chapter.

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\(^{1}\) The astute reader will notice that employees per 1000 students is simply the inverse of students per employee, a common metric often focused on the faculty as students per faculty member. I’ve used the former configuration in this chapter to keep the focus on adjusted employee trends.
5.3 How much are employees paid?

Average FY2018 salaries for full-time non-medical staff are illustrated in Figure 5.5 with a comparison of instructional versus non-instructional salaries by type of institution, using the typical contract lengths of nine months for academic appointments and twelve months for other staff. Instructional staff (which includes the professorial faculty ranks as well as lecturers and instructors) are paid more than non-instructional staff on average, presumably because of national market forces related to specialization and advanced degree requirements. Instructional staff members are also paid relatively more at the bigger publics and privates. In general, the pay at private institutions is higher at comparable sizes of schools across instructional and non-instructional staff, again except for the R3-M3 privates where the pay is about the same as at the corresponding publics. The salary premium at private institutions averages 17% more for instructional staff and 14% more for non-instructional staff. For the average instructional staff salary, there is a notable difference of more than $35,000 per year between R1 publics and privates. Further details on faculty salaries are covered in Section 5.7.
5.4 What is the size of the faculty?

As I noted previously, the Carnegie classification is closely related to overall institution size, and so we see the size of the instructional staff being largest at R1 universities and smallest at baccalaureate colleges (Figure 5.6). A quick technical note: the faculty can include non-instructional members (e.g., those focused on research), so the term instructional staff is more precise, although at the level we’re examining there isn’t much practical difference between the two and we can use the faculty as shorthand. Returning to Figure 5.6, at most types of institution there are roughly similar proportions of the three professorial ranks and fewer lecturers and instructors. However, at R1 schools there is a remarkable sliding proportion of headcounts by rank, with more full professors and successively fewer members of each lower rank. The reason for this stark difference is unclear but, given that this is an R1 phenomenon only, it is likely a function of higher research activity. The three professorial ranks total 78% of the total across all institutions, a remarkably consistent percentage that varies only by a few percentage points across institution types. Note that this observation is for full-time positions, and that there are higher proportions of part-time instructional positions at smaller schools as detailed in Section 5.6.
Box 5.1. Faculty Titles: A Primer for the Uninitiated

Faculty job titles can seem confusing to those unfamiliar with the practices of the academy. Ironically, for institutions that are such bastions of egalitarianism, the formal hierarchy of earned and ranked job titles and the implicit campus class structure they produce are remarkable. The basic structure is simple enough, with three faculty ranks for those who are tenured or on the tenure track (Figure B5). Professors are the most senior and, because “professor” is also a generic term for anyone teaching at a university, for precision we talk about Full Professors. Associate Professors are in the middle rank, and Assistant Professors are the most junior of these three. Typically, but not always, the upper two ranks have achieved tenure while Assistant Professors are working towards it (see Chapter 6 for more on tenure). Faculty members not on the tenure track, also known as the contingent faculty, have various job titles, the most common being lecturer and instructor for teaching, with various titles for researchers, librarians and other specialists. Their appointments may be multi-year, one-year, less than a year, by course or project, as well as full-time or part-time.

Where things get confusing is the plethora of modifiers. We have honorary titles such as Distinguished and Regents’ Professor, and endowed chair titles such as the John Smith Professor of XYZ. There are Professors of Practice (often practitioners whose primary job is not on campus, but sometimes core faculty by another name), and Clinical, Research and Teaching Professors, who may be tenure-track or contingent depending on the institution. Visiting Professors of various ranks may indeed be visiting for a semester or a few weeks every year, paid or unpaid, or may be local contingent faculty. Some individuals may have split appointments across multiple departments and others may have courtesy titles in cognate fields that variously might be called Joint or Dual Appointments. We also have titles such as Adjunct Professor, a poorly-defined term that may or may not signal contingent and/or part-time or class-by-class status. To cap things off, titles can be combined to obtain inscrutable ostentations such as the Jane Doe Distinguished Clinical Research Professor of Underwater Basket Weaving!

![Figure B5. Simplified typology of faculty titles at US universities.](image_url)
There are several key differences among the trends in instructional staff size when we break the data out by type of institution (Figure 5.7). The first pattern to note is that the number of full-time faculty members per 1000 students (i.e., adjusted for enrollment...
growth over time) is generally lower at public institutions than privates. The second notable pattern is that the trend in adjusted faculty size has been flat for several decades at the larger publics and the R3-M3 privates, while it has been increasing relative to enrollment at the R1 and R2 privates, as well as both public and private baccalaureate colleges. Recall that at the latter small colleges, enrollments have been relatively flat and even decreasing, so some if not all of the increase in faculty ratio is attributable to a change in the denominator. Generally, though, after adjusting for enrollment growth the full-time faculty to student ratio at most publics has remained about the same size, while it has grown (albeit modestly) at an annualized rate of 0.5% to 0.8% at most privates.

5.5 How has faculty composition changed by rank?

The mix of faculty ranks relative to each other began shifting noticeably in the late 1990s (Figure 5.8). Looking across all institutions, the percentage of full professors declined from 35% two decades ago to 29% of the instructional faculty in recent years, while at the same time the percentage of lecturers and instructors rose from 5% to 13% and 9% respectively. The percentage of associate and assistant professors has remained relatively level by comparison, varying by a few percent at or above the 25% level. This is an interesting case in which the Great Recession that hit in FY2009 was not the initial force for change. Instead, the long economic expansion that had been underway since the postwar years ended with the recession of the early 1990s. This period saw increased unemployment and an extended real estate slump,

Figure 5.8. Trends in percentage share by rank of full-time instructional staff, averaged across all eight types of institution by fiscal year. Source: IPEDS (2020).
multiple years of state budget cuts at the publics and lower market returns for the privates, that together partly catalyzed universities to shift their hiring patterns. Two related elements were at play, the first simply being less money and the second being uncertainty about future funding, so that money freed up by retiring senior faculty members was more likely to be deployed in hiring non-tenure track faculty (i.e., those with shorter-term contracts and lower budgetary obligation) than in growing the junior ranks of the tenure-track faculty.

These broad patterns occurred in institutions of all types and sizes, but naturally there are some differences among them. The net change in percentage share of each rank is illustrated for our eight institution types in Figure 5.9. The decrease in the proportion of full professors occurred across all types of school, although it was less at the privates (except the R2 privates) and more at the publics (except the public baccalaureate colleges). Likewise, the growth in proportions of lecturers and instructors has been ubiquitous, although relatively more at larger universities and less at smaller schools where those proportions were slightly higher initially (except for private baccalaureate colleges, where the proportions of all ranks have shifted the least of any type over time). The overall trends of relatively fewer full professors and relatively more non-tenure track faculty do not appear to have ameliorated in recent years. Given that the relevant financial pressures on institutions have not diminished, these trends in the composition of the faculty will presumably continue for the foreseeable future.

![Figure 5.9. FY1998–FY2018 change in percentage share by rank of full-time instructional staff, averaged by Carnegie classification and control. Source: IPEDS (2020).](image-url)
5.6 What is the proportion of part-time faculty members?

Part-time faculty members currently make up almost 60% of the faculty at private R3-M3 schools, a far greater proportion than at any other type of institution (Figure 5.10). The next largest percentage is 44% at the R3-M3 publics. These two categories together comprise almost two thirds of all institutions in our data set (see Figure 1.2 in Chapter 1) and thus part-time faculty form a substantial part of the overall faculty at most of the nation’s universities. In contrast, however, the share of part-time faculty at public and private R1 universities is 22%. These dissimilarities relate to the tuition-dominated revenue portfolios of the smaller teaching-oriented schools versus the diverse revenue streams at large research universities. Importantly, and not in Figure 5.10, R1 and R2 schools have graduate teaching assistants that partially offset their lower part-time faculty numbers. By necessity, financial pressures at teaching and tuition-dominated institutions will incentivize lowering the cost of education, most of which is labor cost (including support-staff labor, not only instructional labor). A revealing indicator in this regard is the number of credit hours taught by various types of faculty members (Geiger 2011), with part-timers among the highest when pro-rated. It follows that cost savings in instructional salaries and benefits from part-time appointments have been found across all types of institutions and over time (Hurlburt and McGarrah 2016a).

There have been widespread increases in the share of contingent (non-tenure track) faculty more generally, and part-time appointments in particular, that have been widely
commented upon and studied (American Association of University Professors 2019a; Hurlburt and McGarrah 2016b). As with the non-tenure track faculty (see Section 5.5), significant trends in the relative share of part-time faculty were underway in the 1990s at all types of institution and their growth rivaled that of lecturers and instructors until roughly the turn of the millennium (Figure 5.10). Over the two decades since then, the proportion of part-time faculty has been relatively flat at the larger universities and at private baccalaureate colleges (and has decreased at R1 privates), with ongoing slower growth at the smaller publics.

We can look further back in time using broader data for all four-year and two-year postsecondary institutions to gain some perspective (Figure 5.11). The growth in the percentage of part-time faculty has three distinct periods, a steep rise in the 1970s, followed by slower and mostly steady growth for three decades from the 1980s through the 2000s (with some variability in the early 1990s that may relate to a change in data collection), and most recently an unprecedented decline since the 50% peak in FY2012. What is driving these patterns, in general and by institution type? The 1970s saw record enrollment growth (see Figure 4.13), much of which was absorbed at two-year community colleges, while investment returns from the market shrunk for the privates and state spending per student flattened and became more volatile for the publics. Higher education’s glory days of funding were over and one way that institutions coped was to hire an increasing share of part-time faculty members. The

![Figure 5.11. Trends in part-time faculty as a percentage of total faculty across all degree-granting postsecondary institutions (four-year and two-year) and averaged for all institutions in Figure 5.10. Sources: NCES Digest (National Center for Education Statistics 2018c) and IPEDS (2020).](image-url)
financial pressure to keep costs down along with the year-to-year uncertainty have been present ever since, along with the further rise in part-time teaching positions. Those institutions that rely most heavily on tuition revenue have felt these forces the strongest, and they are the ones with the highest proportion of part-time faculty. We don’t see the recent declining trend in our four-year only dataset (Figure 5.11); it represents a shift only at two-year colleges where the entire faculty has shrunk by 18% from FY2012 to FY2018 (National Center for Education Statistics 2018b)!

5.7 How much do the faculty earn?

Salaries across the academic ranks increase as expected from junior to senior positions, with assistant professor salaries averaging 60% to 70% of full professor salaries and instructors being paid about 50% of what full professors receive on average, depending on institution type (Figure 5.12). These average data obscure the considerable salary differences across disciplines; we’ll cover those in Chapter 6. Overall, the highest salaries are paid at private institutions and pay across public institutions averages 14% below that at the privates. Private-public percentage differences in salary by rank and institution type are highlighted in Figure 5.13. The dichotomy between public and private salaries is strongest at R1 schools, especially for full professors at public R1 universities, who make 26% less than their private counterparts. The private-public salary imbalance at the R1 and R2 institutions has worrying implications for the locus of top research talent and it fuels a brain-drain that could undermine the historic strength of the nation’s public research universities (see Chapter 8 on research). The

![Figure 5.12. FY2018 nine-month equated salaries of full-time non-medical instructional staff, averaged by Carnegie classification and control. Source: IPEDS (2020).](image-url)
interesting exception is again the set of R3-M3 private institutions, which pay their professors about 8% less than their public colleagues while paying lecturers and instructors about the same as at the publics.

Figure 5.13. FY2018 percentage differences of nine-month equated salaries of full-time non-medical instructional staff at public institutions as compared to private institutions, averaged by Carnegie classification. Source: IPEDS (2020).

Overall, the increase in private university faculty salaries as compared to their public colleagues has been attributed to the relatively higher tuition increases at the privates (Ehrenberg 2002). The growing salary ranges as one moves from smaller to larger institutions is primarily tied to the growing spread of state appropriations per student across the publics and a counterpart expanding spread in endowment per student levels across the privates (Ehrenberg 2002). Also, the same work controlled for other factors and holding them constant found that universities with the most growth in inflation-adjusted research expenditures per faculty member from institutional funds had the largest increase in their student-faculty ratio (Ehrenberg 2002).

In the decades before the Great Recession, inflation-adjusted faculty salaries at all ranks rose steadily except for a flatter period of a half-dozen years during and after the early 1990s recession (Figure 5.14). In contrast to more than a quarter-century of general salary growth leading up to FY2009, faculty salaries averaged by rank across all institutions have been flat for the decade since then. However, within that average austerity are some remarkable salary trends by institution type and rank, illustrated in Figure 5.15 as percentage changes from FY2009 to FY2018. At smaller schools, both public and private, all ranks saw decreases of between 2% and 8% in their inflation-adjusted salaries. The opposite occurred at R1 and R2 private institutions, where all
ranks received increases of 1.5% to 8%, while the trends were smaller and mixed across ranks at R1 and R2 publics.

Figure 5.14. Trends in average inflation-adjusted faculty salaries by rank, equated to a nine-month contract, averaged across institution type by Carnegie classification and control. Source: IPEDS (2020).

Figure 5.15. FY2009–FY2018 percentage change in average inflation-adjusted faculty salaries by rank, equated to a nine-month contract. Source: IPEDS (2020).
The growth in salaries from FY1985–FY2009 averaged 31% for tenure-track faculty (34%, 28% and 31% respectively for full, associate and assistant professors) while it was slightly lower at 27% for non-tenure track faculty (25% and 29% respectively for lecturers and instructors). On the other hand, average full and associate professor salaries declined by about 2.5% from FY2009 to FY2018, while salaries for assistant professors, lecturers and instructors decreased less by roughly 0.5% to 1%.

5.8 What are the types of support staff and their salaries?

As we saw in Section 5.2, most university employees are not on the instructional staff, and instead they work in many kinds of support positions. To provide a sense of the wide range of support staff positions on campus, the IPEDS non-instructional staff categories and some example occupations in each are listed in Table 5.1.

Table 5.1. Non-instructional support staff categories and selected examples of occupations and fields. Sources: IPEDS (2020) and US Bureau of Labor Statistics (2010).

<table>
<thead>
<tr>
<th>Category</th>
<th>Example Occupations &amp; Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>Researchers (Non-Instructional) in all disciplines</td>
</tr>
<tr>
<td>Public Service</td>
<td>Agricultural Extension; Clinical Services; Continuing Education</td>
</tr>
<tr>
<td>Librarians, Curators &amp; Academic Support</td>
<td>Librarians; Curators; Archivists; Academic Affairs &amp; Other Education Support (Non-Instructional)</td>
</tr>
<tr>
<td>Management</td>
<td>Chief Executives; Vice Presidents; Executive Directors &amp; Directors; Managers of Operations, Marketing, IT, Purchasing, Transportation, Human Resources, Food Service</td>
</tr>
<tr>
<td>Business &amp; Finance</td>
<td>Accountants; Auditors; Budget Analysts; Benefits Specialists; Compliance Officers; Financial Analysts; Fundraisers; Meeting &amp; Event Planners</td>
</tr>
<tr>
<td>IT &amp; Technical</td>
<td>Computer Systems Analysts, Developers &amp; Programmers; Architects; Engineers; Life, Physical &amp; Social Scientists</td>
</tr>
<tr>
<td>Community, Legal, Arts &amp; Sports</td>
<td>Community &amp; Social Service; Legal; Arts, Design, Entertainment, Sports &amp; Media</td>
</tr>
<tr>
<td>Healthcare Practice</td>
<td>Physicians, Nurses, Therapists, Counselors, Pathologists, Veterinarians, Laboratory Technicians</td>
</tr>
<tr>
<td>Service</td>
<td>Healthcare Support; Security; Food Preparation &amp; Serving; Building &amp; Grounds Cleaning &amp; Maintenance</td>
</tr>
<tr>
<td>Sales</td>
<td>Retail Workers, Cashiers, Sales Representatives, Telemarketers</td>
</tr>
<tr>
<td>Office &amp; Administrative Support</td>
<td>Clerical Assistants; Records Clerks; Executive &amp; Administrative Assistants; Postal Services; Receptionists</td>
</tr>
<tr>
<td>Natural Resources, Construction &amp; Maintenance</td>
<td>Farming, Fishing &amp; Forestry; Construction; Installation, Maintenance &amp; Repair</td>
</tr>
<tr>
<td>Transportation &amp; Production</td>
<td>Bus, Car &amp; Truck Drivers; Machine Operators; Carpenters; Painters</td>
</tr>
</tbody>
</table>
The number of non-instructional support staff in each of the major job categories is roughly consistent at public and private institutions (Figure 5.16). The biggest staff categories are office support, IT, management, business and service. Public institutions have slightly more staff on average across institution types. The larger research-focused institutions have relatively more staff in research, business/finance, and IT/technical roles than the smaller schools, which is what we might expect given their missions.

![Figure 5.16. FY2018 counts of non-instructional support staff (full-time, non-medical) by type, averaged by Carnegie classification and control. Source: IPEDS (2020).](image)

Support staff salaries are not available by rank or seniority except for those in management roles. As one would expect, managers earn more than regular staff members, with managers averaging over $100,000 per year and regular staff averaging in the $40,000 to $60,000 range (Figure 5.17). The higher-earning fields on average include research, IT/technical, and business/finance, while office support, sales, and service occupations are at the lower end. Unsurprisingly, public institutions pay staff less than the privates, averaging 7% lower across the board, and ranging from twice that difference between R1 schools to 2% less at R3-M3 private schools (likely indicative of the financial stress at those institutions that we’ve noted multiple times).

IPEDS only began collecting detailed salary data for non-instructional employees in FY2013, so the trend data don’t yet provide much information beyond looking like those for instructional staff. Average inflation-adjusted support staff salaries increased about 3% from FY2014 to FY2015, and by small amounts in the other years.
5.9 Is administrative bloat a myth?

If ever you hear the phrase “administrative bloat,” know that it works like chum in the water to get the sharks circling. This trope relies on the age-old mistrust the faculty has of administrators as misguided or even malicious instruments of corporatist power, and on the assumption that administrators have been proliferating for years, “wasting” money that could be used to hire more faculty members instead. In this particular context, an administrator is a well-paid individual in an academic managerial role such as a dean or vice provost, or a vice president in a non-academic administrative area like human resources or communications, i.e., higher administration. Rarely does the sense of the term extend to rank-and-file professional staff members carrying out their support roles in lower-level administration.

Administrative bloat in the sense above is a myth: higher administrators are not escalating relative to the faculty or students and have not done so for decades (Desrochers and Kirshstein 2014; Kelchen 2018). However, the relative numbers of professional support staff\(^2\) have indeed been rising. These trends are made plain by the data in Figure 5.18, which shows that the number of executive administrators per faculty member has remained constant at about 0.3, while the number of professional support staff per faculty member has increased by almost half (0.7 to 1.0) in nearly two decades.

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\(^2\) Professional staff positions require at least a bachelor’s degree.
The fastest-growing professional staff segment has been student support services (see more about those spending trends in Section 7.8). These positions include advisors, counselors and other professionals who, in some cases, perform duties that otherwise the faculty would have to do. In other cases, they serve in roles that didn’t necessarily exist in prior decades and are now providing essential support that is expected by students and parents. This type of position has grown relative to other staff, which would at first glance appear to indicate “lower administration bloat,” but that’s not the whole story. Some other staff categories have shrunk over time, resulting in a relative balance in overall non-instructional staff proportions; recall from Figure 5.4 that the overall trends in all non-instructional staff have remained parallel to trends in instructional positions. So, while the two trends (flat higher administration and growing professional staff, especially in student services) might appear to be contradictory in relation to administrative bloat, they are not—the relative increase in professional staff is offset by relative decreases in other staff categories in relation to all instructional staff. What we have seen is simply a shift to a greater proportion of staff in the professional category relative to other staff positions, with all-staff totals remaining parallel to trend in instructional staff. Therefore, whether in its classic higher administration invocation or more broadly relating to non-instructional staff, administrative bloat is a false hypothesis that refuses to die. It is likewise a red herring in arguments about rising costs in higher education, which have structural causes as we saw in Section 3.7.
5.10 How do we account for graduate assistants?

Graduate assistants are distinctive in an accounting sense because they are a special kind of student-employee hybrid. A graduate assistantship is a form of financial aid awarded only to selected students on a per-semester basis to enable them to attend graduate school (an assistantship is not like a regular job for which anyone can apply). Yet, graduate assistants clearly perform work in teaching or research, typically half-time or less. Graduate assistants are completely different to regular staff members attending a graduate program who may receive qualified tuition reduction as an employee benefit, and whose job does not depend on satisfactory academic performance in the program. The hybrid nature of a graduate assistantship simultaneously enables many students to attend graduate school while providing academic labor to their program, the latter having sometimes led to labor relations disputes and efforts to organize, most recently at elite private institutions (Kroeger et al. 2018).

Graduate assistants are, needless to say, found at schools with graduate programs, and those are primarily R1 and R2 institutions (Figure 5.19). The teaching/research assistant percentage split is 57:43 at R1 publics and close to that at R2 public and private schools, but the split at R1 privates is exactly the opposite way around (43:57) with more research than teaching assistants. The typical graduate assistantship is awarded to a full-time research doctoral student (or research master’s student) and rarely to graduate students in professional programs (e.g., EdD, MBA, MD) or part-time graduate students. Figure 5.19 also shows that the share of all full-time graduate students receiving assistantships

![Figure 5.19. FY2018 total unadjusted counts of graduate assistants (teaching, research, other) as a share of full-time graduate student fall enrollment, averaged by Carnegie classification and control. Source: IPEDS (2020).](image-url)
at public institutions is double the share at private institutions (43% versus 21%), which is due to a combination of factors at the privates: smaller undergraduate enrollments needing fewer teaching assistants, relatively larger graduate enrollments, especially in professional programs, and more self-paying graduate students.

Trends in the unadjusted counts of graduate assistants have been rising over the last decade and a half, by roughly 1% annually at the publics and about 3% at the privates. As with the instructional staff, we should adjust these totals to account for enrollment growth over time, and those adjusted trends are shown in Figure 5.20. Note also that these totals are for all graduate assistants, teaching, research and other; on average, teaching assistants are 53% and 40% of all graduate assistants at public and private universities respectively. Adjusted graduate assistant trends were rising until the mid-2000s at all four types of institution, after which they leveled off and even receded at the R1 publics. At the privates, the trend in graduate assistants increased in the early 2010s and rose to about 10% more than at the publics.

![Figure 5.20. Trends in graduate assistant headcount adjusted by total fall student enrollment, expressed as graduate assistants per 1000 students, for public and private R1 and R2 institutions by fiscal year. Source: IPEDS (2020).](image)

5.11 How much do graduate assistants earn?

Graduate assistantship stipend amounts are not collected comprehensively on a national basis in IPEDS (although it does count the number of graduate assistants). Instead, total assistantship dollar amounts (among many other variables) are collected every few years via sample (National Center for Education Statistics 2018a), but when the data are broken out by subset such as Carnegie classification, degree level, and so
on, they can be unreliable or unavailable because of small sample sizes. These data are also not specified by appointment level (half-time, quarter-time, etc.). Full-time research doctoral students are the most consistently comparable subgroup across institutions and categories to receive a half-time graduate assistantship, typically a nine-month or ten-month stipend for teaching and often for twelve months as a research assistant. Given the above constraints, these “most comparable” stipends are illustrated in Figure 5.21. Graduate assistantships across all fields are 30% lower at R1 publics compared to R1 privates, almost $18,000 versus nearly $26,000 (the difference is 9% at R2 schools). Dividing the data by major academic field, half-time nine-month stipends in STEM fields are higher than in others (about $21,000 versus about $16,000), and the public/private difference holds except in business-related majors. In the life sciences, graduate assistant stipends are often linked to the predoctoral amount stipulated annually by the National Institutes of Health, which at $23,376 for FY2016 (National Institutes of Health 2016) falls right between the average public and private half-time stipends for life and physical sciences. By the way, it is sometimes incorrectly assumed that, as teachers or researchers, graduate students are “cheaper” than their nearest staff counterparts: instructors or postdoctoral researchers (for more on this topic, see Section 8.5).

Trends in graduate assistantship stipends are hard to discern with much precision given the data issues mentioned above, but such as they are, the inflation-adjusted trends have generally been upwards (Figure 5.22). The annualized rate of increase for
the NPSAS survey data is roughly 1.5%, which is interestingly slightly higher than that for the faculty. Amounts at the publics have been essentially flat since 2000 given the variability in the data, while at the privates they have been flat in the post-recession years. Inflation-adjusted NIH stipends have likewise been flat since the recession and are now a bit lower in real terms than they were in 2004 after they rose with the NIH budget-doubling between 1998 and 2003.

![Graph showing trends in half-time (0.5 FTE, non-summer year) graduate assistantship amounts for full-time, full-year research doctoral students at public and private R1 and R2 institutions, and trend in the stipulated NIH pre-doctoral stipend amount for graduate research assistants (0.5 FTE, full-year), all by fiscal year in 2016 dollars.]

Figure 5.22. Trends in half-time (0.5 FTE, non-summer year) graduate assistantship amounts for full-time, full-year research doctoral students at public and private R1 and R2 institutions, and trend in the stipulated NIH pre-doctoral stipend amount for graduate research assistants (0.5 FTE, full-year), all by fiscal year in 2016 dollars. Sources: NPSAS:16 (National Center for Education Statistics 2018a) and NIH (National Institutes of Health 2016; 2019).

5.12 How much are employee fringe benefits and costs?

Full-time university employees, whether academic or regular staff, have an associated set of fringe benefits and related costs that are paid by the institution in addition to an employee contribution. On average, as we saw in Figure 3.1, employee fringe benefits total an additional one third of salary costs. IPEDS stopped collecting detailed fringe benefit data after FY2011, but fortunately the set of benefits has remained essentially unchanged since then, so we can still usefully examine those data (Figure 5.23). In addition to major benefits like healthcare, retirement and social security, there are other items such as workers’ compensation, disability income protection, unemployment compensation, group life insurance and housing allowances. A signature benefit in higher education as compared to other sectors is a tuition plan for dependents. It
is a valuable benefit for many employees and is therefore an important incentive in attracting workers into higher education. The dollar value to the employee, and cost to the institution, can be significant, especially at private institutions with their higher tuition levels. Some benefits have a vesting period of several years before they are fully usable (e.g., retirement, tuition). Public institutions often participate in their state benefits program, which may include a pension system as well as a healthcare plan that is purchased on the open market.

The public-private dollar difference in employer benefit contributions in Figure 5.23 is likely due to the higher salaries at the privates; likewise, the higher salaries at R1 schools lead to relatively higher dollar contributions too. When expressed as a percentage of salary, this relationship can be inverted. For example, in FY2018 the average faculty retirement benefit as a percentage of salary was 11.7% at four-year publics versus 7.3% at non-religiously affiliated four-year privates (American Association of University Professors 2018).

Fringe benefit costs grow faster on average than any other costs in higher education, with an average annual increase of 3.9% over FY2007–FY2017 (Commonfund Institute 2017a); also, see the HEPI (Section 3.7), which indexes all higher education costs and averaged only 2.4% growth over the same period. The fast-rising cost of healthcare is a major component of the overall growth in fringe benefit costs, affecting not only universities and colleges but all employers. Healthcare premiums have doubled in the last twenty years (Figure 5.24): they rose rapidly in the early 2000s, from 5% to 13%
annually even after adjusting for inflation, but subsequently stabilized somewhat in the late 2000s and have remained mostly under 4% since then, again after adjusting for inflation. The employer contribution has remained in the mid-80% range for most of these two decades. However, one of the key ways that plans keep prices down is through deductibles. Both the number of high deductible health plans and the amount of the deductible has been rising, and since 2008 annual deductibles for covered workers have increased eight times as fast as wages (Kaiser Family Foundation 2018).

![Figure 5.24. Worker and employer contributions to health insurance premiums (single coverage) and year-to-year percentage changes in total premiums, in 2016 dollars. Source: Kaiser Family Foundation (2018).](image)

Retirement benefits have been undergoing structural changes for some time. Defined benefit (traditional pension) plans are in retreat, while defined contribution (retirement investment) plans have been on the rise since pre-tax 401(k) plans were established in 1978. At public universities, with their state public pension plan links, 11% currently offer a pension plan only, 10% offer a defined contribution plan only, and 79% offer both kinds of plan, whereas at private universities only 1% are currently limited to a pension plan, 92% offer a defined contribution plan only, and 7% offer both (Sibson Consulting 2018). Overall, the average higher education employer contribution to defined contribution retirement plans is 8.7%, which is a valuable benefit at two to three times more than the typical corporate contribution (Sibson Consulting 2018).

Finally, universities variously offer a range of additional benefits to employees. Certainly, all offer paid and unpaid leave programs, but they differ in what they include, such as vacation time, sick leave, paid time off, extra holidays, short-term and long-term disability plans, parental leave, bereavement leave, military leave, and
sabbatical leave. About half of institutions offer employee assistance programs (Sibson Consulting 2018) and non-traditional benefits as well, such as financial consultation, clinical counseling sessions, legal consultation, stress management, group life insurance, professional development, wellness initiatives, access to campus fitness centers, as well as resource and referral services for substance abuse, elder care and childcare. These benefits can go a long way to creating a desirable workplace, and while their cost to the institution is not large in comparison to healthcare or retirement, they still need to be monitored and managed.