

Staffing Trends in Public Colleges and Universities

A National Analysis 2001 – 2009

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Overview and Purpose

The international imperative for postsecondary education is growing, and the President has asked states to help America once again become the world leader in postsecondary attainment by 2020. National groups such as the Lumina Foundation for Education, the Bill and Melinda Gates Foundation, Complete College America, and the National Governors Association have put forth bold completion goals to facilitate this result. The drive towards this goal comes at a time in which governments at all levels across the United States are facing serious fiscal challenges. According to the Center on Budget Policies and Priorities, 46 states have faced budget shortfalls in 2011 and 44 states expect to face similar challenges in 2012. It is not surprising that both policymakers and state higher education executives are taking a close look at how colleges and universities utilize resources to optimize efficiency and ensure more people have access to and benefit from affordable postsecondary education.

Staffing makes up a large portion of budgets at all institutions of higher education and high quality staff is an essential component of quality education. Given the current context, it is important for systems and institutions to understand current staffing patterns so they can make informed decisions for efficient resource allocation. Current literature in higher education that examines staffing patterns focuses on the distribution of full-time and part-time instructional staff and the composition of staff types (or roles) at colleges and universities. This analysis examines trends in both these areas over time and by Carnegie classification for public colleges and universities.

In recent months a number of reports have offered similar analyses of staffing patterns in higher education. The fiscal pressures in higher education are encouraging decision makers to take a closer look at college staffing trends, and these studies are designed to aid this effort. This report adds to the existing literature by digging deep into the overall trends in college staffing in the last ten years to provide state higher education executive offices with additional insight.

Methodology

The primary purpose of this analysis is to examine staffing patterns at public colleges and universities, using data from three different IPEDS surveys: the Fall Staff Survey, the 12-Month Enrollment Survey, and the Institutional Characteristics Survey.

The Fall Staff Survey is a component of the IPEDS Human Resources Survey and collects data on the number of full- and part-time employees by contract length, salary class, primary occupational activity, and other factors. Title IV Institutions with more than 15 full-time employees are required to report fall staff data as of November 1 of a reporting year in all odd years. This analysis includes staff headcount data from the 2001, 2003, 2005, 2007, and 2009 Fall Staff Surveys.

Fall staff data is reported per 100 full-time equivalent (FTE)¹ students to account for institutional workload. IPEDS describes FTE as “a single value providing a meaningful combination of full-time and part-time students.” Since most institutions are likely to make staffing decisions based on the previous year’s enrollments, this study uses a one-year lag of enrollment data to standardize fall staff data (e.g., 2009 fall staff numbers are divided by 2008 annual student FTE). This analysis includes annual student FTE from 2000², 2002, 2004, 2006 and 2008.

This study uses data from the five most recent fall staff surveys for a number of reasons. First, since the survey is done biannually, this provides ten years of data to analyze. Second, the data definitions and instructions changed for a number of Primary Function/Occupational Activity fields in the 2001 data collection including Executive, Administrative and Management, and Other Professional (see Appendix 2 for definitions). Third, the data needed to compute the student FTE calculations (credit hours and contact hours) were not collected until 1997. Finally, IPEDS does not have data files available for 1999³.

Institutions for this analysis were chosen using data reported in the 2009 Institutional Characteristics Survey. They include Title IV, public, postsecondary institutions from all fifty states and the District of Columbia that reported both reasonable FTE⁴ and fall staff data for the years included. Independent institutions, military institutions, and institutions classified as “special” (see Appendix 3 for classification details) were not included.

Based on 2005 Carnegie classifications, institutions were put into the following four groups:

1. Associates⁵ (N=998)
2. Baccalaureate, Masters, Doctoral⁶ (N=375)
3. Research, High Activity (N=75)
4. Research, Very High Activity (N=63)

Table A in Appendix 3 maps the original 2005 Carnegie classifications to the groupings above and identifies those categories classified as “special” and therefore not included in this analysis.

¹ IPEDS currently offers two different FTE measures, one calculated based on fall headcounts and the other calculated based on total student credit and contact hours (instructional activity). This study utilizes the latter because it takes into account variance in the amount of credits each student takes over a given year. Calculations for each FTE are available in Appendix 1.

² For all available years (2002-2008), SHEEO utilized the Student FTE that IPEDS calculates based on instructional activity reported on the 12-Month Enrollment Activity Survey. For the years where a calculated Student FTE based on instructional activity was not available from the IPEDS data center (2000), SHEEO calculated the FTE utilizing the calculation IPEDS provided and instructional activity and enrollment data available from IPEDS.

³ 1999 was the first year that IPEDS collected data using an online data collection system. Due to this transition and concerns with the integrity of the data, these files are still unavailable from the IPEDS data center.

⁴ Institutions with five or fewer FTE in any of the study years were excluded as was one institution with FTE data that was a significant outlier.

⁵ Includes institutions classified as baccalaureate institutions that predominantly award associates degrees. Associate Institutions with a “special” Carnegie classification were omitted from the analysis.

⁶ These categories were combined because their populations are fundamentally similar as are their FTE and enrollment trends.

Also for the purposes of this study, the Primary Function/Occupational Activity categories for staff reported in the Fall Staff Survey are grouped into the following categories:

1. Executive/administrative and managerial
2. Other professional
3. Clerical/secretarial/technical
4. Service/maintenance/skilled craft
5. Faculty (Instruction/research/public service)
6. Graduate Assistants

Table B in Appendix 3 maps the IPEDS Primary Function/Occupational Activities to these groupings, and Appendix 2 provides detailed definitions of each Primary Function/Occupational Activity category.

This analysis utilizes 2001-2009 fall staff data and 2000-2008 student FTE to provide a context of public higher education staffing for the longest possible period with comparable data. It should be noted that IPEDS refined many of the fall staff categories and changed its data collection process in 1999 and 2001, so these earlier data are less consistent than data in subsequent years. Also, IPEDS did not produce an annualized student FTE figure based on instructional activity until 2002, so for this study an annualized student FTE for 2000 was calculated utilizing the IPEDS methodology. While the impact of these factors on the overall findings of this report is minimal, we still encourage readers to focus on the entirety of the data presented and their ability to show staffing trends to inform future inquiry at the state and institutional level.

Findings

Table 1 provides an overview of student FTE and staff nationally. Since 2001, both student FTE and staff have increased at public institutions across the education spectrum. Two-year institutions saw the largest increase in FTE with Associates institution's FTE increasing 29% from 2001 to 2009. In contrast, four-year institutions saw a 19% to

22% rise in student FTE over the same period. Total staff grew at a smaller rate than student FTE with most institutions experiencing increases between 17% and 18%. Institutions with high research activity saw the smallest (6%) staff increase.

National Trends in FTE, Total Staff (Full-time and Part-time), and Staff Per 100 FTE

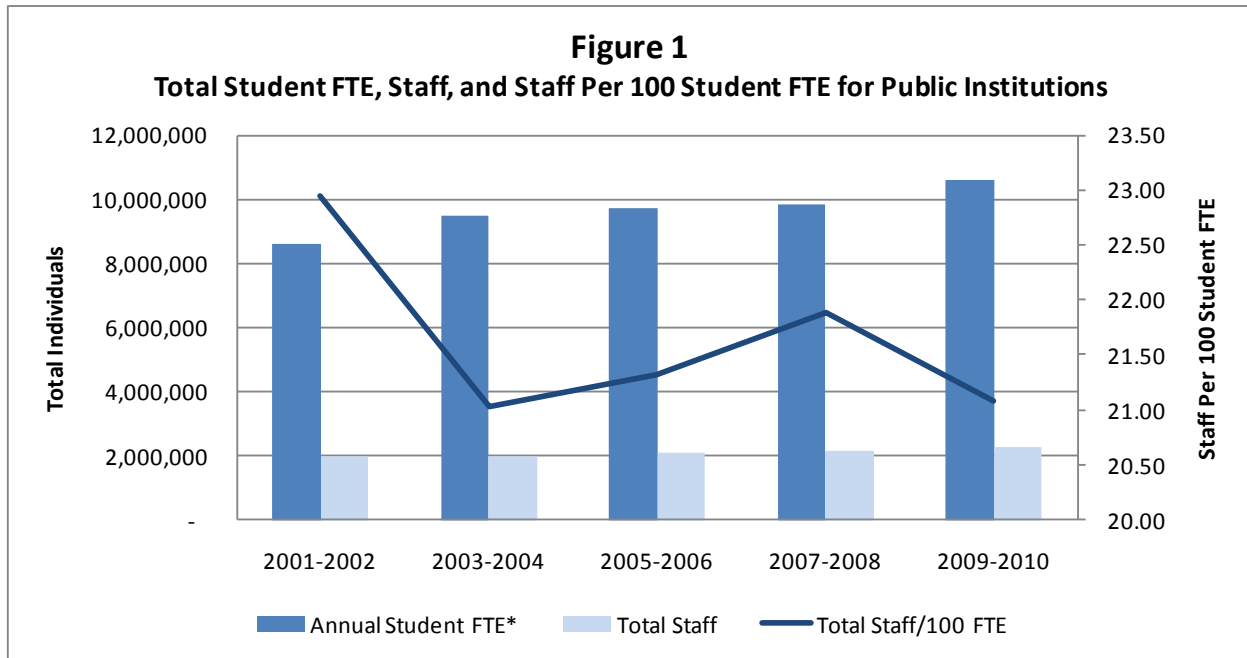
	Staff/100 Student FTE			% Change		
	2001-2002	2005-2006	2009-2010	2001-2005	2005-2009	2001-2009
Associates						
Annual Student FTE*	3,690,725	4,170,138	4,744,527	13%	14%	29%
Total Staff (Full-time and Part-time)	573,633	619,142	677,381	8%	9%	18%
Total Staff/100 FTE	15.54	14.85	14.28	-4%	-4%	-8%
Baccalaureate, Masters, Doctoral						
Annual Student FTE*	2,265,200	2,536,550	2,706,132	12%	7%	19%
Total Staff (Full-time and Part-time)	395,827	428,220	465,010	8%	9%	17%
Total Staff/100 FTE	17.47	16.88	17.18	-3%	-3%	-2%
Research, High Activity						
Annual Student FTE*	1,037,224	1,220,902	1,270,428	18%	4%	22%
Total Staff (Full-time and Part-time)	281,300	309,736	332,069	10%	7%	18%
Total Staff/100 FTE	27.12	25.37	26.14	-6%	-6%	-4%
Research, Very High Activity						
Annual Student FTE*	1,591,478	1,764,431	1,900,924	11%	8%	19%
Total Staff (Full-time and Part-time)	718,740	709,939	765,399	-1%	8%	6%
Total Staff/100 FTE	45.16	40.24	40.26	-11%	-11%	-11%
Total						
Annual Student FTE*	8,584,627	9,692,021	10,622,011	13%	10%	24%
Total Staff	1,969,500	2,067,037	2,239,859	5%	8%	14%
Total Staff/100 FTE	22.94	21.33	21.09	-7%	-7%	-8%

* Annual student FTE numbers are lagged by one year, see methodology section for details.

All institutional groups experienced a decrease in total staff per 100 student FTE suggesting that between 2001 and 2009 most institutions improved their educational efficiency by educating more students with fewer staffing resources.

Figure 1 shows that although both annual student FTE and total staff increased from 2001 to 2009, FTE grew at a faster rate than staff resulting in an overall decrease for total staff per 100 student FTE.

National Trends in FTE, Total Staff (Full-time and Part-time), and Staff Per 100 FTE



*Annual FTE Numbers are lagged by one year, see methodology section for details.

Table 2 shows the total number of full-time and part-time employees per 100 student FTE from 2001 to 2009. Baccalaureate, Masters, Doctoral institutions and Research, High Activity institutions saw declines of less than 10% in total full-time staff and small increases (6% and 2% respectively) in total part-time staff. Associates institutions and Research, Very High Activity institutions saw decreases of 12% in full-time staff as well as small decreases (5% and 8% respectively) in part-time staff.

National Trends in Full-time and Part-time Staff by Carnegie Group

	Staff/100 Student FTE			% Change		
	2001-2002	2005-2006	2009-2010	2001-2005	2005-2009	2001-2009
Associates	15.54	14.85	14.28	-4%	-4%	-8%
Full-Time	7.65	7.18	6.75	-6%	-6%	-12%
Part-Time	7.89	7.67	7.53	-3%	-2%	-5%
Baccalaureate, Masters, Doctoral	17.47	16.88	17.18	-3%	2%	-2%
Full-Time	12.64	11.90	12.04	-6%	1%	-5%
Part-Time	4.84	4.99	5.15	3%	3%	6%
Research, High Activity	27.12	25.37	26.14	-6%	3%	-4%
Full-Time	18.20	16.41	17.00	-10%	4%	-7%
Part-Time	8.92	8.96	9.14	0%	2%	2%
Research, Very High Activity	45.16	40.24	40.26	-11%	0%	-11%
Full-Time	30.56	26.77	26.77	-12%	0%	-12%
Part-Time	14.61	13.47	13.50	-8%	0%	-8%
Grand Total	22.94	21.33	21.09	-7%	-1%	-8%
Full-Time	14.49	13.14	12.90	-9%	-2%	-11%
Part-Time	8.46	8.18	8.18	-3%	0%	-3%

Table 3 provides additional insight into the staffing composition at America's public colleges and universities from 2001 to 2009.

- Three staffing categories saw a 20% or greater reduction in staff per 100 FTE nationally: Clerical and Secretarial; Executive/Administrative and Managerial; and Service Maintenance and Skilled Crafts.
- Full-time Faculty per 100 student FTE has declined approximately 9% while part-time Faculty per 100 student FTE has grown 2%.
- The Other Professionals category has grown 6% since 2001
- Graduate Assistants have remained relatively consistent over this time period.

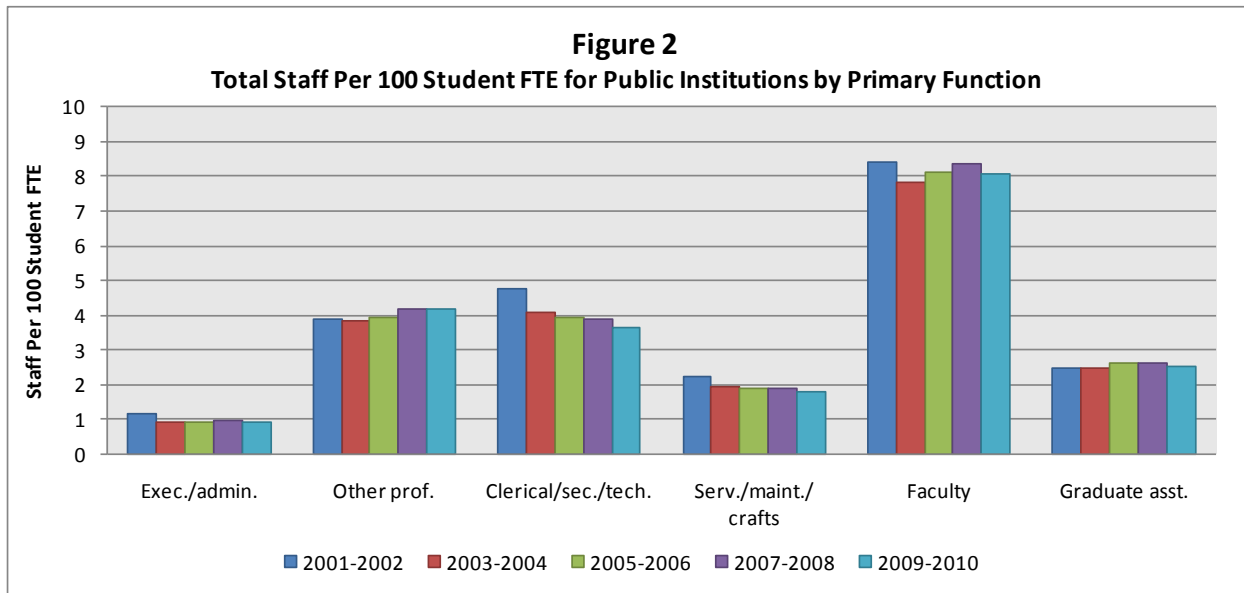
National Trends in Full-time and Part-time Staff by Primary Function

	Staff/100 Student FTE			% Change		
	2001-2002	2005-2006	2009-2010	2001-2005	2005-2009	2001-2009
Executive/Administrative and managerial	1.14	0.90	0.91	-21%	1%	-20%
Full-Time	1.08	0.87	0.87	-19%	0%	-20%
Part-Time	0.06	0.03	0.04	-58%	48%	-37%
Other Professionals	3.90	3.91	4.16	0%	6%	6%
Full-Time	3.32	3.35	3.57	1%	7%	7%
Part-Time	0.58	0.56	0.58	-4%	5%	1%
Clerical/Secretarial/Technical	4.77	3.91	3.63	-18%	-7%	-24%
Full-Time	3.61	2.97	2.73	-18%	-8%	-24%
Part-Time	1.16	0.94	0.90	-19%	-5%	-23%
Service/Maintenance/Skilled Crafts	2.24	1.88	1.78	-16%	-5%	-20%
Full-Time	1.89	1.63	1.54	-14%	-6%	-19%
Part-Time	0.35	0.25	0.25	-29%	-1%	-29%
Faculty (Instruction/research/public service)	8.41	8.14	8.09	-3%	-1%	-4%
Full-Time	4.59	4.32	4.20	-6%	-3%	-9%
Part-Time	3.82	3.81	3.89	0%	2%	2%
Graduate Assistants	2.49	2.60	2.53	4%	-3%	1%
Part-Time	2.49	2.60	2.53	4%	-3%	1%
Grand Total	22.94	21.33	21.09	-7%	-1%	-8%
Full-Time	14.49	13.14	12.90	-9%	-2%	-11%
Part-Time	8.46	8.18	8.18	-3%	0%	-3%

Figure 2 offers a graphic representation of changes in staff per 100 FTE by staff category from 2001 to 2009. The Clerical, Secretarial and Technical and the Service, Maintenance and Skilled Crafts categories saw consistent declines in staff per 100 student FTE over this period. These are areas where institutions are likely gaining economies of scale—as student FTE increases the number of staff remains consistent resulting in a decline in staff per 100 student FTE. The Other Professional, Faculty and Graduate Assistant categories fluctuate most. This fluctuation may be due to the relationship between these categories and direct student support since Faculty and Graduate Assistants are responsible for teaching courses and a large portion of the positions reported in the Other Professional category are student

support staff. The Executive/Administrative and Managerial category is almost flat suggesting that staff per 100 student FTE is relatively constant in this area.

National Trends in Staff Per 100 FTE from 2001 to 2009 by Primary Function



There is significant variation in the composition of staff at different types of institutions. Figure 3 shows the distribution of total staff headcount reported on the survey in 2009 by primary function nationally across the four different Carnegie groups. Associates institutions have the highest percentage of staff composed of faculty while Research, Very High Activity institutions have the lowest; this variation in staffing reflects differences in institutional missions.

National Composition of Staff Categories as a Percent of Total Staff Headcount by Carnegie Type

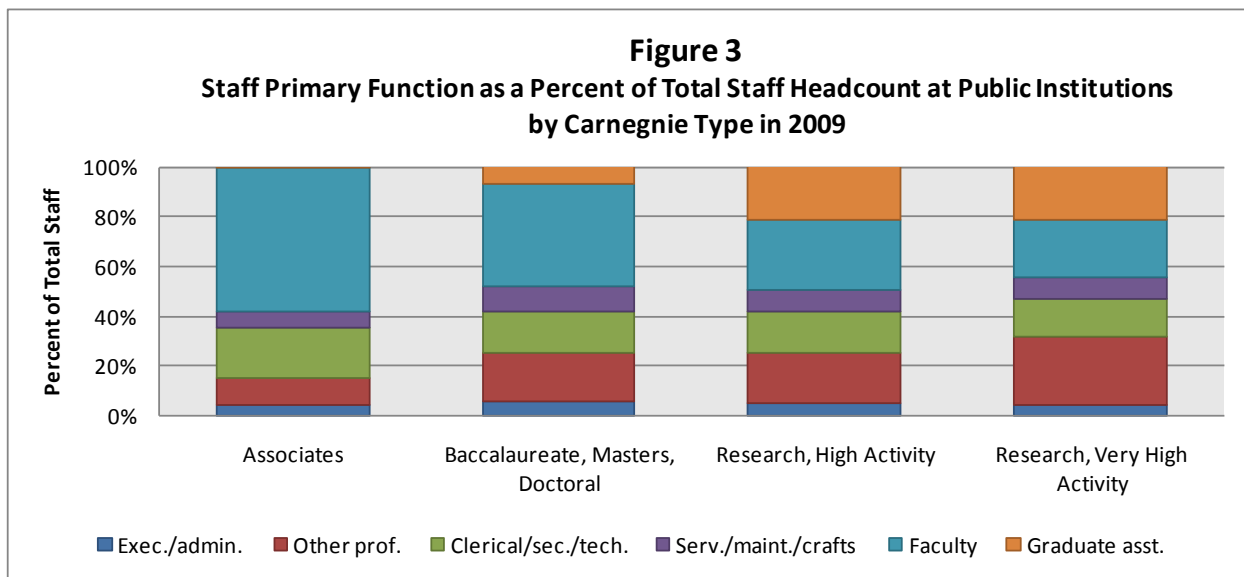


Table 4 illustrates the changing distribution of staff headcount per 100 student FTE for institutions of different Carnegie groups over time. Institutions with less research activity saw larger increases in Other Professional staff than those with higher levels of research activity from 2001 to 2009. Baccalaureate, Masters, Doctoral and Research, High Activity institutions also saw significant increases (38% and 16% respectively) in the total number of Graduate Assistants per 100 student FTE suggesting that these institutions are beginning to utilize greater numbers of graduate students to support instruction, research, and student services. All other staffing areas saw declines for all types of institutions but the size of these changes varies.

National Trends in Full-time and Part-time Staff by Carnegie Group and Primary Function

	Staff/100 Student FTE			% Change		
	2001-2002	2005-2006	2009-2010	2001-2005	2005-2009	2001-2009
Associates	15.54	14.85	14.28	-4%	-4%	-8%
Executive/administrative and managerial	0.77	0.62	0.60	-19%	-4%	-22%
Other professionals	1.26	1.47	1.50	16%	3%	19%
Clerical/secretarial/technical	3.50	3.13	2.90	-10%	-7%	-17%
Service/maintenance/skilled crafts	1.09	1.02	0.96	-6%	-6%	-12%
Faculty (Instruction/research/public service)	8.89	8.60	8.32	-3%	-3%	-6%
Graduate assistants	0.03	0.01	0.00	N/A	N/A	N/A
Baccalaureate, Masters, Doctoral	17.47	16.88	17.18	-3%	2%	-2%
Executive/administrative and managerial	1.06	0.84	0.86	-21%	2%	-19%
Other professionals	2.84	3.09	3.36	9%	9%	18%
Clerical/secretarial/technical	3.54	3.01	2.87	-15%	-5%	-19%
Service/maintenance/skilled crafts	2.07	1.81	1.76	-12%	-3%	-15%
Faculty (Instruction/research/public service)	7.07	6.96	7.10	-2%	2%	0%
Graduate assistants	0.89	1.16	1.23	31%	6%	38%
Research, High Activity	27.12	25.37	26.14	-6%	3%	-4%
Executive/administrative and managerial	1.55	1.14	1.14	-27%	0%	-26%
Other professionals	5.04	5.12	5.46	2%	6%	8%
Clerical/secretarial/technical	5.19	4.37	4.22	-16%	-3%	-19%
Service/maintenance/skilled crafts	2.97	2.47	2.39	-17%	-3%	-20%
Faculty (Instruction/research/public service)	7.59	7.09	7.38	-7%	4%	-3%
Graduate assistants	4.77	5.17	5.54	8%	7%	16%
Research, Very High Activity	45.16	40.24	40.26	-11%	0%	-11%
Executive/administrative and managerial	1.85	1.46	1.58	-21%	8%	-15%
Other professionals	10.79	10.00	11.03	-7%	10%	2%
Clerical/secretarial/technical	9.17	6.73	6.12	-27%	-9%	-33%
Service/maintenance/skilled crafts	4.66	3.59	3.48	-23%	-3%	-25%
Faculty (Instruction/research/public service)	9.71	9.47	9.40	-3%	-1%	-3%
Graduate assistants	8.98	8.99	8.66	0%	-4%	-4%
Grand Total	22.94	21.33	21.09	-7%	-1%	-8%
Executive/administrative and managerial	1.14	0.90	0.91	-21%	1%	-20%
Other professionals	3.90	3.91	4.16	0%	6%	6%
Clerical/secretarial/technical	4.77	3.91	3.63	-18%	-7%	-24%
Service/maintenance/skilled crafts	2.24	1.88	1.78	-16%	-5%	-20%
Faculty (Instruction/research/public service)	8.41	8.14	8.09	-3%	-1%	-4%
Graduate assistants	2.49	2.60	2.53	4%	-3%	1%

Table 4 also shows great variation between Carnegie groups in the number of staff employed per 100 student FTE. There appears to be a positive relationship between the extent of research conducted at an institution and the number of staff per 100 student FTE employed by the institution. Associates

institutions have less than one half of the staff per 100 student FTE of Research, Very High Activity institutions.

Figure 4 illustrates the differences in the number of staff per 100 student FTE by Carnegie group for each Primary Function. The largest differences are in the Other Professional and Graduate Assistant categories. These differences are likely related to the number of graduate students on campus; institutions most likely to educate doctoral students are also most likely to employ them. This figure also suggests that there is similarity between institutional types in the number of faculty per student FTE employed. Finally, in the three administrative functions: Executive/Administrative and Managerial; Clerical and Secretarial; and Service/Maintenance and Skilled Crafts, institutions with more research employ marginally higher numbers of staff per student FTE. Since all faculty and staff, including those largely or exclusively devoted to research, are in the numerator of this ratio, and only students are in the denominator, it is unsurprising that universities with substantial research activities show higher ratios.

National Picture of Staff Per Student FTE by Carnegie Group and Primary Function in 2009

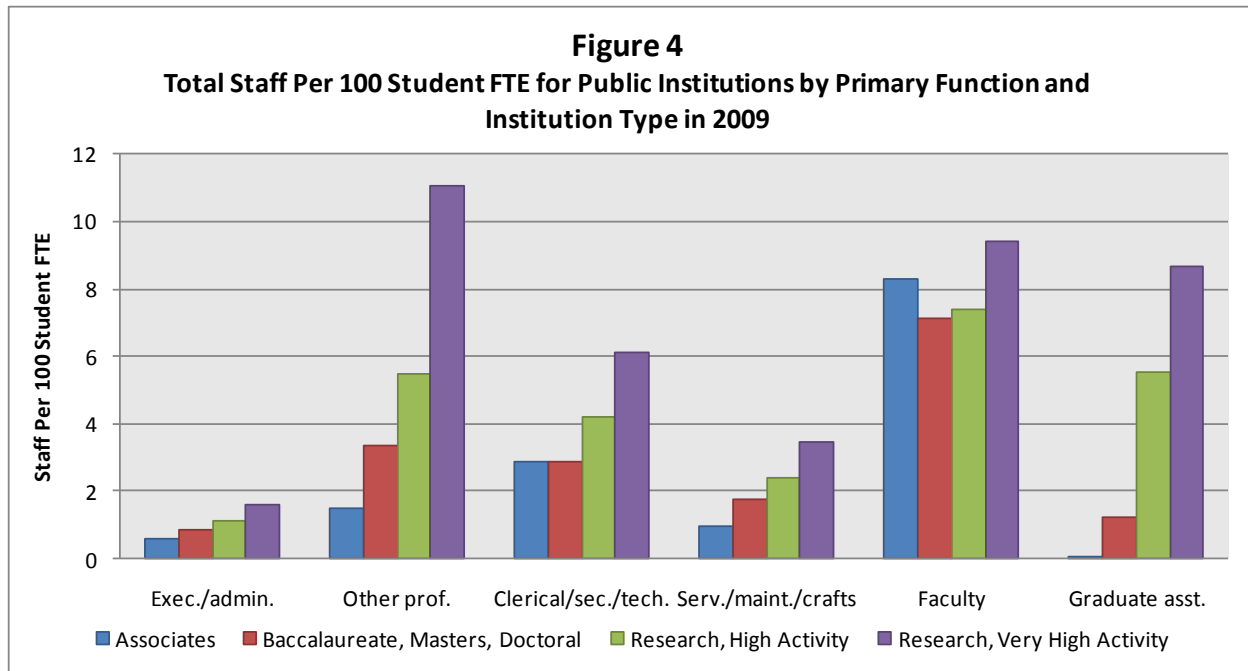


Table 4 and Figures 3 and 4 suggest two important trends in Other Professional staff per student FTE. First, Other Professional staff at Baccalaureate, Masters, Doctoral and Research High Activity institutions is growing. Second, institutions that conduct research, particularly Research, Very High Activity institutions, employ more Other Professional staff. The Other Professional category is diverse; its definition includes not only staff who assist in day-to-day operations (such as Human Resources) but also staff who provide direct service to students (such as librarians and IT staff), those who provide support services students expect (such as medical center staff, coaches, and financial aid), and those who support research (lab staff and research assistants). Therefore, it is hard to tell from this analysis exactly why this type of staff is increasing and concentrated in certain types of institutions, but this area certainly warrants more research.

Final Observations

This analysis provides a broad look at national and state staffing patterns and currently supports the following observations:

- 1) Between 2001 and 2009, America's public colleges and universities experienced a decline in total staff per 100 student FTE. Although both student FTE and total staff have increased, staffing levels have increased at a slower rate.
- 2) Part-time instructional staff (Faculty and Graduate Assistants) per 100 student FTE has stayed relatively constant while full-time instructional staff per 100 student FTE has declined. Public colleges and universities may be meeting increasing student demand with part-time staff rather than creating full-time positions.
- 3) Staffing areas such as Clerical and Secretarial, Executive/Administrative and Management, and Maintenance and Skilled Crafts were more likely to see declines in staff per 100 student FTE while areas that are directly involved in serving students such as Faculty, Graduate Assistants, and Other Professional were likely to see increases in staff per 100 student FTE but with variations. This suggests that from 2001 to 2009 the sector has achieved some economies of scale, particularly in operational support.
- 4) Carnegie groups with more emphasis on research employ more Other Professional staff per 100 student FTE, and Other Professionals make up a larger portion of their overall staff.

Appendix A – FTE Calculation Details From IPEDS Glossary

Calculation of FTE students (using instructional activity)-Used in this study

The number of FTE students is calculated based on the [credit](#) and/or [contact hours](#) reported by the institution on the [IPEDS 12-month enrollment \(E12\)](#) component and the institution's [calendar system](#), as reported on the [Institutional Characteristics](#) (IC) component. The following table indicates the level of [instructional activity](#) used to convert the credit and/or contact hours reported to an indicator of full-time equivalents (FTE students):

- **Quarter calendar system**
Enrollment level (One FTE over 12-month period)
Undergraduate 45 credit hours, 900 contact hours
Graduate 36 credit hours
- **Semester/trimester/4-1-4 plan/other calendar system**
Enrollment level (one FTE over 12-month period)
Undergraduate 30 credit hours, 900 contact hours
Graduate 24 credit hours

For institutions with continuous enrollment programs, FTE is determined by dividing the number of contact hours attempted by 900.

The FTE for first-professional students is calculated using the unduplicated headcounts reported on the enrollment component. Since the unduplicated headcounts do not differentiate between full-time and part-time students, an estimation is used. The ratio of full-time to part-time first-professional students from the previous collection year fall enrollment (which corresponds to the same academic year students) is calculated, and this ratio is applied to the 12-month unduplicated headcount. Adding the resulting full-time and one-third part-time student estimates results in the FTE for first-professional students.

The total 12-month FTE is generated by summing the estimated or reported undergraduate FTE, the estimated or reported graduate FTE and the estimated First-professional FTE.

Calculation of FTE students (using fall student headcounts)-Not Used in This study

The number of FTE students is calculated based on fall student headcounts as reported by the institution on the IPEDS Enrollment (EF) component (Part A). The full-time equivalent (headcount) of the institution's part-time enrollment is estimated by multiplying the factors noted below times the part-time headcount. These are then added to the full-time enrollment headcounts to obtain an FTE for all students enrolled in the fall. This formula is used to produce an FTE that is used annually in the Digest of Education Statistics.

- Part-time undergraduate enrollment
 - Public 4-year (.403543)
 - Private (not-for-profit and for-profit) 4-year (.392857)
 - Public 2-year and <2-year (.335737)
 - All other institutions (.397058)
- Part-time first-professional enrollment
 - Public 4-year (.600000)
 - Private (not-for-profit and for-profit) 4-year (.545454)
- Part-time graduate enrollment
 - Public 4-year (.361702)
 - Private (not-for-profit and for-profit) 4-year (.382059)

Appendix B – FTE Calculation Details From IPEDS Glossary

Primary function/occupational activity categories: The principal activity of a staff member as determined by the institution. If an individual participates in two or more activities, the primary activity is normally determined by the amount of time spent in each activity. Occupational activities are designated as follows: Executive, administrative, and managerial; Faculty (instruction/research/public service); Graduate assistants; Other professional (support/service); Technical and paraprofessional; Clerical and secretarial; Skilled crafts; and Service/maintenance (see separate definitions).

Clerical and secretarial: A primary function or occupational activity category used to classify persons whose assignments typically are associated with clerical activities or are specifically of a secretarial nature. Includes personnel who are responsible for internal and external communications, recording and retrieval of data (other than computer programmer) and/or information and other paperwork required in an office. Also includes such occupational titles such as switchboard operators, including answering service; telephone operators; bill and account collectors; billing and posting clerks and machine operators; bookkeeping, accounting, and auditing clerks; payroll and timekeeping clerks; procurement clerks; file clerks; clerical library assistants; human resources assistants, except payroll and timekeeping; shipping, receiving, and traffic clerks; secretaries and administrative assistants; computer operators; data entry and information processing workers; desktop publishers; mail clerks and mail machine operators (except postal service); office clerks (general); office machine operators (except computer); and proofreaders and copy markers. (Prior to 2001, supervisors for these areas were also reported in this category)

Executive/administrative and managerial: A primary function or occupational activity category used to classify persons whose assignments require management of the institution, or a customarily recognized department or subdivision thereof. Assignments require the performance of work directly related to management policies or general business operations of the institution, department or subdivision. Assignments in this category customarily and regularly require the incumbent to exercise discretion and independent judgment. Included in this category are employees holding titles such as: top executives; chief executives; general and operations managers; advertising, marketing, promotions, public relations, and sales managers; operations specialties managers; administrative services managers; computer and information systems managers; financial managers; human resources managers; purchasing managers; postsecondary education administrators such as: presidents, vice presidents (including assistants and associates), deans (including assistants and associates) if their principal activity is administrative and not primarily instruction, research or public service, directors (including assistants and associates), department heads (including assistants and associates) if their principal activity is administrative and not primarily instruction, research or public service, assistant and associate managers (including first-line managers of service, production and sales workers who spend more than 80 percent of their time performing supervisory activities); engineering managers; food service managers; lodging managers; and medical and health services managers. (Prior to 1999, supervisors of professional employees were not included in

this category but were instead reported within the specific categories of the personnel they supervise, for example, technical, clerical, craft, service/maintenance)

Faculty (Instruction/research/public service): Persons identified by the institution as such and typically those whose initial assignments are made for the purpose of conducting instruction, research or public service as a principal activity (or activities). They may hold academic rank titles of professor, associate professor, assistant professor, instructor, lecturer or the equivalent of any of those academic ranks. Faculty may also include the chancellor/president, provost, vice provosts, deans, directors or the equivalent, as well as associate deans, assistant deans and executive officers of academic departments (chairpersons, heads or the equivalent) if their principal activity is instruction combined with research and/or public service. The designation as "faculty" is separate from the activities to which they may be currently assigned. For example, a newly appointed president of an institution may also be appointed as a faculty member. Graduate, instruction, and research assistants are not included in this category.

Graduate Assistant: Graduate-level students employed on a part-time basis for the primary purpose of assisting in classroom or laboratory instruction or in the conduct of research. Graduate students having titles such as graduate assistant, teaching assistant, teaching associate, teaching fellow, or research assistant typically hold these positions.

Other Professional (Support/Services): A primary function or occupational activity category used to classify persons employed for the primary purpose of performing academic support, student service, and institutional support, whose assignments would require either a baccalaureate degree or higher or experience of such kind and amount as to provide a comparable background. Included in this category are all employees holding titles such as business operations specialists; buyers and purchasing agents; human resources, training, and labor relations specialists; management analysts; meeting and convention planners; miscellaneous business operations specialists; financial specialists; accountants and auditors; budget analysts; financial analysts and advisors; financial examiners; loan counselors and officers; computer specialists; computer and information scientists, research; computer programmers; computer software engineers; computer support specialists; computer systems analysts; database administrators; network and computer systems administrators; network systems and data communication analysts; counselors, social workers, and other community and social service specialists; counselors; social workers; health educators; clergy; directors, religious activities and education; lawyers; librarians, curators, and archivists; museum technicians and conservators; librarians; artists and related workers; designers; athletes, coaches, umpires; dancers and choreographers; music directors and composers; chiropractors; dentists; dietitians and nutritionists; optometrists; pharmacists; physicians and surgeons; podiatrists; registered nurses; therapists; and veterinarians.

Other Administrative (2001 Only): Persons whose assignments require management of the institution, or a customarily recognized department or subdivision thereof, but who are

subordinate to employees classified as executive and managerial. Assignments require the performance of work directly related to management policies or general business operations of the institution, department or subdivision. Assignments in this category customarily and regularly require the incumbent to exercise discretion and independent judgment. Included in this category are all employees holding titles such as assistant, associate vice presidents (if no direction of others is required); assistant, associate deans (if no direction of others is required); assistant or associate directors; assistant or associate department head, if their principal activity is administrative; assistant or associate managers (including first-line managers of service, production and sales workers who spend more than 80% of their time performing supervisory activities). Term used in the 2001-02 Employees by Assigned Position (EAP) component only.

Technical and paraprofessionals : A primary function or occupational activity category used to classify persons whose assignments require specialized knowledge or skills which may be acquired through experience, apprenticeship, on-the-job-training, or academic work in occupationally specific programs that result in a 2-year degree or other certificate or diploma. Includes persons who perform some of the duties of a professional in a supportive role, which usually requires less formal training and/or experience than normally required for professional status. Includes mathematical technicians; life, physical, and social science technicians; agricultural and food science technicians; chemical technicians; geological and petroleum technicians; nuclear technicians; paralegals and legal assistants; miscellaneous legal support workers; health technologists and technicians; dietetic technicians; pharmacy technicians; licensed practical and licensed vocational nurses; medical records and health information technicians; opticians, dispensing; healthcare support occupations; nursing aides, orderlies, and attendants; physical therapist assistants and aides; massage therapists; dental assistants; medical assistants; and pharmacy aides.

Skilled crafts : A primary function or occupational activity category used to classify persons whose assignments typically require special manual skills and a thorough and comprehensive knowledge of the processes involved in the work, acquired through on-the-job-training and experience or through apprenticeship or other formal training programs . Includes occupational titles such as welders, cutters, solderers and brazers; bookbinders and bindery workers; printers; cabinetmakers and bench carpenters; plant and system operators; stationary engineers and boiler operators; water and liquid waste treatment plant and system operators; crushing, grinding, polishing, mixing, and blending workers; medical, dental, and ophthalmic laboratory technicians; painting workers; photographic process workers and processing machine operators; and etchers and engravers. (Prior to 2001, supervisors for these areas were also reported in this category)

Service/maintenance: A primary function or occupational activity category used to classify persons whose assignments require limited degrees of previously acquired skills and knowledge and in which workers perform duties that result in or contribute to the comfort, convenience, and hygiene of personnel and the student body or that contribute to the upkeep of the

institutional property. Includes titles such as fire fighters; law enforcement workers; parking enforcement workers; police officers; security guards; lifeguards; ski patrol; cooks and food preparation workers; food and beverage serving workers; fast food and counter workers; waiters and waitresses; other food preparation and serving related workers; building cleaning and pest control workers; grounds maintenance workers; electrical and electronic equipment mechanics; installers and repairers; radio and telecommunications equipment installers and repairers; avionics technicians; electric motor, power tool, and related repairers; vehicle and mobile equipment mechanics, installers, and repairers; control and valve installers and repairers; heating, air conditioning, and refrigeration mechanics and installers; air transportation workers; motor vehicle operators; and parking lot attendants. (Prior to 2001, supervisors for these areas were also reported in this category)

Appendix 3 – Relevant Groupings

Table A: Carnegie 2005 Classification and Groupings

Carnegie 2005 Classification	Grouped Carnegie Classification
Associates--Public Rural-serving Small	Associates
Associates--Public Rural-serving Medium	Associates
Associates--Public Rural-serving Large	Associates
Associates--Public Suburban-serving Single Campus	Associates
Associates--Public Suburban-serving Multi-campus	Associates
Associates--Public Urban-serving Single Campus	Associates
Associates--Public Urban-serving Multi-campus	Associates
Associates--Public Special Use*	Special
Associates--Private Not-for-profit*	Associates
Associates--Private For-profit*	Associates
Associates--Public 2-year colleges under 4-year universities	Associates
Associates--Public 4-year Primarily Associates	Associates
Associates--Private Not-for-profit 4-year Primarily Associates*	Associates
Associates--Private For-profit 4-year Primarily Associates*	Associates
Research Universities (very high research activity)	Research, Very High Activity
Research Universities (high research activity)	Research, High Activity
Doctoral/Research Universities: Doctorate-granting Universities	Baccalaureate, Masters, Doctoral
Masters Colleges and Universities (larger programs)	Baccalaureate, Masters, Doctoral
Masters Colleges and Universities (medium programs)	Baccalaureate, Masters, Doctoral
Masters Colleges and Universities (smaller programs)	Baccalaureate, Masters, Doctoral
Baccalaureate Colleges--Arts & Sciences	Baccalaureate, Masters, Doctoral
Baccalaureate Colleges--Diverse Fields	Baccalaureate, Masters, Doctoral
Baccalaureate/Associates Colleges	Associates
Special Focus Institutions--Theological seminaries, Bible colleges, and other faith-related institutions*	Special
Special Focus Institutions--Medical schools and medical centers*	Special
Special Focus Institutions--Other health professions schools*	Special
Special Focus Institutions--Schools of engineering*	Special
Special Focus Institutions--Other technology-related schools*	Special
Special Focus Institutions--Schools of business and management*	Special
Special Focus Institutions--Schools of art, music, and design*	Special
Special Focus Institutions--Schools of law*	Special
Special Focus Institutions--Other special-focus institutions*	Special
Tribal Colleges*	Special
Not classified*	N/A
Not applicable, not in Carnegie universe (not accredited or non-degree-granting)*	N/A

Note: Classifications marked with an asterisk are not included in the report. Institutions classified with a "special" Carnegie Class in 2000 and reclassified in 2005 class were also excluded (i.e. Military institutions)

Table B: Primary Function/Occupational Activity Groupings

IPEDS primary function/occupational activity categories	Grouped Primary Function/Occupational Activity
Clerical and secretarial	Clerical/secretarial/technical
Executive/administrative and managerial	Executive/administrative and managerial
Other Administrative*	Executive/administrative and managerial
Instruction/research/public service	Faculty (Instruction/research/public service)
Part-time, Graduate assistants	Graduate assistants
Other professionals	Other professionals
Technical and paraprofessionals	Clerical/secretarial/technical
Skilled crafts	Service/maintenance/skilled crafts
Service/maintenance	Service/maintenance/skilled crafts

Note: Other administrative was only included in the 2001 fall staff data collection. In later years the definition was incorporated into the executive/administrative and managerial category which is why it was grouped there. (See Appendix 2 for definitions)