

IT Organization, Staffing, and Planning

The first section of the core data survey included questions that can be clustered into three areas: campus information technology (IT) leadership and organization, IT staffing, and IT strategic planning.

IT Leadership and Organization

Survey responses for the title of the highest ranking technology administrator beg the question, “What’s in a name?” The title for this highest ranking IT administrator continues to be anything but consistent or predictable! Of the 890 institutions whose data were included in the frozen data set upon which the analyses in this 2004 summary report are based, 249 unique titles were reported compared with 294 in last year’s frozen data set of 822 institutions, reflecting many combinations and permutations of

every level (vice president, assistant/associate vice president, dean, director, and others) and area descriptor (information systems, services, or technology, and others). These various combinations and permutations often include an addendum such as “and CIO” or “and CTO.” The most commonly reported title was in fact CIO (chief information officer), which was reported either as a unique title or as part of a broader title in 32.8% of ALL responses, up from 29.2% last year. Also, this year 27 more campuses reported that their top IT administrator’s title is or includes Chief Technology Officer, an increase of 3% over last year. CIO was followed by Director of Information Technology and Vice President for Information Technology as the most common titles.

Table 1-1 shows percentages of the various

Table 1-1
Title of Highest Ranking IT Administrator

	ALL	DR	MA	BA	AA	OTHER
VP, Deputy VP, Vice Chancellor, Vice Rector	21.0%	32.8%	19.5%	17.2%	18.7%	16.4%
CIO	24.8%	40.8%	28.2%	18.3%	13.9%	20.0%
CTO	4.0%	2.3%	5.0%	4.1%	5.4%	2.9%
Vice Provost, Assistant or Associate Vice Provost/VP/VC	11.1%	15.5%	16.6%	8.3%	7.2%	4.3%
Director, Dean, Executive Director	34.6%	7.5%	29.5%	49.7%	47.0%	44.3%
Assistant or Associate Director/Dean	1.1%	0.0%	0.8%	1.2%	3.0%	0.7%
Head, Manager, Other	3.3%	1.1%	0.4%	1.2%	4.8%	11.4%

**Table 1-2
Percentage of Top IT Administrators Reporting to Various Campus Officers**

	ALL	DR	MA	BA	AA	OTHER
President/chancellor/CEO	30.7%	24.1%	28.2%	32.0%	42.2%	27.9%
Highest ranking academic officer (Provost, Academic VP, Dean)	25.1%	36.2%	32.4%	28.4%	13.3%	8.6%
Highest ranking administrative officer (Administrative VP, Executive VP)	24.0%	20.1%	20.7%	14.2%	28.3%	41.4%
Highest ranking business officer (Business Officer, CFO)	11.5%	5.7%	10.8%	17.2%	12.0%	12.1%
Second-level academic officer (Assistant or Associate Provost/VP)	1.1%	2.3%	0.8%	0.6%	0.0%	2.1%
Second-level administrative officer (Assistant or Associate Administrative VP)	0.7%	1.1%	0.8%	0.0%	0.0%	1.4%
Jointly to president/chancellor/ CEO and chief academic officer	2.1%	2.9%	2.1%	4.1%	0.0%	1.4%
Jointly to chief academic officer and chief administrative or financial officer	2.1%	5.2%	2.9%	1.2%	0.0%	0.7%
Other	2.7%	2.3%	1.2%	2.4%	4.2%	4.3%

titles¹ by Carnegie classification,² to allow for easy comparison across segments of the higher education community. As shown in the table, the CIO title is most common in research universities (DR), while director is the dominant title in liberal arts colleges (BA), associate's colleges (AA), and institutions in the OTHER category. This is a departure from last year, when vice president was the most common title in research universities. However, when you look at only the 689 institutions found in both the 2003 and 2004 frozen data sets (hereafter referred to as the matched data set), then the percent of ALL schools where the title of the highest ranking IT administrator was vice president actually increased.

These highest ranking IT administrators not only have a variety of titles, they also have a variety of reporting relationships within their respective organizational structures. Table 1-2 shows the percentage of top IT leaders reporting to various officials on their campuses, once again broken out by Carnegie class.

The percentage of IT leaders reporting directly to the president is significantly higher for associate's colleges, while the percentage of IT leaders reporting to the highest ranking

academic officer is greatest for doctoral universities. Few respondents reported that their top IT administrator reports below the level of the highest ranking academic or administrative officer, with the range from approximately 9% of doctoral institutions to just under 18% of BA institutions with top IT administrators reporting to business officers, CFOs, or second-level academic or administrative officers.

Although nearly 33% of the top IT administrators at doctoral institutions carry the title vice president, vice chancellor, or something equivalent, only about 24% report to the president or chancellor. It is likely that their title reflects a level of significance and seniority within the executive leadership team, not necessarily a structural reporting relationship or an indication of who conducts this person's performance appraisal.

While reporting relationships are potentially interesting, who actually does the IT leader's performance evaluation is less important than whether or not the IT leader is a member of the executive cabinet. The ability to sit on the president's cabinet, executive committee, or whatever the top policy forum is called is far more important, in that this seat allows the

Table 1-3

Percentage of Top IT Administrators Who Are Members of the President's or Chancellor's Cabinet

	ALL	DR	MA	BA	AA	OTHER
Yes	46.5%	51.7%	41.9%	39.1%	57.2%	44.3%
No	53.5%	48.3%	58.1%	60.9%	42.8%	55.7%

top IT leader to actively engage in campus-level discussions about strategic directions and policy and to work with other senior officers in understanding the role that IT can play in the various functional areas on campus.

As shown in Table 1-3, the percentage of top IT administrators sitting on an executive council is substantially greater than the percentage of those who actually report to the president. And whether looking at the 689 institutions in the matched data set or the entire frozen data sets for 2003 and 2004, there was a significant increase from 2003 to 2004 in the percentage of institutions at which the top IT administrator is a member of the president's or chancellor's cabinet. Although that increase occurred across all Carnegie groups, the greatest change occurred in baccalaureate institutions (up nearly 4.5%).

With regard to the various functional areas that report to the top IT administrator, there are as many variations as with titles. Because of the increasing complexity of information technology, there are many subgroupings and focal areas into which IT staff resources fall. Once again the core data survey attempted to identify what functions lie within the line operations of the top IT administrator as the head of the central IT organization.

There is a rather remarkable consistency in the responses to this question, with the same areas ranked in the top 15 (areas checked by more than 50% of ALL respondents) of 21 functional areas, regardless of Carnegie classification. These areas, in descending order, are:

- Network Infrastructure and Services
- Desktop Computing Support/
User Support Services/Training/
Help Desk
- IT Security
- Administration of IT Organization
- IT Policy

- Administrative/Enterprise Information Systems
- Operations/Data Center
- Web Support Services
- Telephony
- Enterprise Infrastructure/Identity Management
- Instructional Technology
- Student Computing
- Academic Computing
- Technology R&D/Advanced Technology
- Multimedia Services

While not all Carnegie groups had precisely this order, the differences were insignificant, as shown in Table 1-4. However, if you examine the table more carefully by rank ordering the functions that report to the top IT administrator and then looking at these rankings across the Carnegie groups, an interesting pattern emerges. The rankings indicate that DR and MA institutions are more similar to each other than they are to either BA or AA schools. Furthermore, BA and AA schools are more similar to one another than either one is to DR or MA institutions. While this may already be somewhat intuitive, the survey provides empirical evidence to support this notion.

Among the 689 institutions included in the matched data set, the following functional areas reporting to the top IT administrator showed a significant increase for ALL schools:

- Instructional Technology
- Multimedia Services
- Operations/Data Center
- Technology R&D/Advanced Technology
- Telephony
- Web Support Services

However, a significant percentage of institutions showed a decrease in Distance Education

**Table 1-4
Functions Reporting to the Top IT Administrator**

	ALL	DR	MA	BA	AA	OTHER
Academic Computing	58.4%	64.4%	63.1%	66.9%	47.0%	46.4%
Administration of IT Organization	94.8%	98.3%	98.3%	94.1%	88.0%	93.6%
Administrative/Enterprise Information Systems	92.2%	92.5%	95.4%	91.7%	88.0%	92.1%
Computer Store	13.8%	25.9%	10.8%	16.6%	3.0%	13.6%
Desktop Computing Support/User Support Services/Training/Help Desk	97.0%	96.0%	97.5%	97.6%	97.0%	96.4%
Enterprise Infrastructure/Identity Management	70.6%	77.0%	74.7%	62.1%	63.9%	73.6%
Distance Education	19.3%	12.6%	28.2%	12.4%	24.7%	14.3%
Instructional Technology	70.2%	78.7%	78.0%	71.0%	59.6%	57.9%
IT Policy	93.8%	94.3%	93.8%	92.3%	92.8%	96.4%
IT Security	95.2%	94.8%	96.3%	94.1%	93.4%	97.1%
Library	13.6%	11.5%	15.4%	15.4%	12.7%	12.1%
Mailroom	4.4%	2.3%	4.6%	7.1%	3.6%	4.3%
Multimedia Services	54.9%	58.0%	64.3%	53.3%	46.4%	47.1%
Network Infrastructure and Services	97.3%	97.1%	98.3%	95.3%	97.6%	97.9%
Operations/Data Center	89.9%	97.1%	91.3%	82.8%	85.5%	92.1%
Print/Copier Services	28.5%	21.3%	24.5%	34.3%	30.1%	35.7%
Research Computing	23.5%	42.5%	20.3%	18.9%	9.6%	27.1%
Student Computing	59.2%	59.8%	63.5%	63.9%	48.8%	57.9%
Technology R&D/Advanced Technology	56.1%	61.5%	58.9%	60.9%	46.4%	50.0%
Telephony	77.2%	87.4%	80.9%	64.5%	74.1%	77.1%
Web Support Services	85.5%	90.2%	88.4%	78.1%	84.9%	84.3%
Other Function	10.9%	14.9%	14.9%	6.5%	6.0%	10.0%

reporting to the top IT administrator. In the matched data set, 27.3% (188) reported this relationship in 2003, whereas only 16.8% (115) did so in 2004.

IT Staffing

The core data survey requested data related to staffing levels, which we have used to suggest several staffing ratios. Data related to staffing practices are also reported.

Staffing Levels

While it is fine to state that a given set of functions reports to the CIO, perhaps the more

interesting question is how each of these functions is staffed on a comparative basis. The survey requested data not only for regular full-time-equivalent (FTE) IT staff but also for student FTE employees because most IT organizations could not meet the needs of their campus constituencies without the skills and talents of the students who serve in a variety of capacities in IT support.

The core data survey respondents were allowed to assign decimal numbers of individuals to the various functions, which is especially important to smaller schools with fewer staff who must cover more than one function-

**Table 1-5
Average Number of FTE Staff in the Central IT Organization in Each Functional Area**

	ALL	DR	MA	BA	AA	OTHER
Administration of IT Organization, Clerical Support	4.8	12.6	3.1	1.9	1.6	5.3
Administrative/Enterprise Information Systems	12.1	34.4	6.9	3.3	3.4	14.1
Desktop Computing Support, User Support Services, Training, Computer Store	8.1	18.1	5.6	3.2	3.7	10.9
Enterprise Infrastructure and Services, Identity Management	2.5	6.9	1.2	0.5	0.7	3.7
Help Desk	3.4	7.7	2.4	1.1	1.6	4.6
IT Policy	0.4	0.9	0.3	0.2	0.2	0.7
IT Security	1.1	2.8	0.6	0.3	0.4	1.5
Instructional Technology, Multimedia Services, Student Computing	6.1	15.7	4.4	2.3	2.9	5.6
Network Infrastructure and Services	5.6	15.9	3.3	1.9	1.8	6.0
Operations, Data Center, Print Services	5.1	15.8	2.5	0.9	1.3	5.7
Research Computing, Academic Computing	2.3	6.7	1.4	0.6	1.0	2.1
Telephony	4.5	14.6	2.3	0.9	0.8	4.2
Web Support Services	2.4	5.4	1.7	1.0	1.1	3.1
Other Function	7.6	12.5	4.2	1.2	4.7	12.9

al area. Thus, if for fiscal year 2003–2004 a given individual spent 50% of her time doing network architecture, 30% of her time doing database work in administrative computing, and the remainder in security, the numbers 0.5, 0.3, and 0.2, respectively, would be appropriate to enter into those functional area cells for that individual.

The deployment of staff and student employees in these functional areas needs to be understood in both absolute and relative terms. The tables in this section reflect those differences, with Tables 1-5 and 1-6 showing the average number of FTE staff and student employees, respectively, devoted to these various functions. Tables 1-7 and 1-8 show the percent of the total number of central FTE IT staff and student

employees, respectively, devoted to each function, thus controlling to some extent for size differences across Carnegie classes.

Table 1-7 presents the percentage of FTE staff in the central IT organization who work in each functional area. There appears to be a fairly consistent distribution of staff among the various functions across all Carnegie groups, with the greatest percentage of staff being allocated to Administrative/Enterprise Information Systems followed closely by the functional area that encompasses Desktop Computing Support, User Support Services, Training, and Computer Store. This was true for ALL respondents as well as all Carnegie groups except AA schools, where the order was reversed, that is, the most staff are allocated to the support area, with

**Table 1-6
Average Number of FTE Student Employees in the Central IT Organization
in Each Functional Area**

	ALL	DR	MA	BA	AA	OTHER
Administration of IT Organization, Clerical Support	0.3	1.1	0.3	0.1	0.7	0.0
Administrative/ Enterprise Information Systems	0.2	0.7	0.2	0.1	0.0	0.1
Desktop Computing Support, User Support Services, Training, Computer Store	2.3	5.4	2.7	1.2	0.9	1.0
Enterprise Infrastructure and Services, Identity Management	0.1	0.3	0.1	0.0	0.0	0.1
Help Desk	2.4	6.0	2.4	1.8	0.5	1.2
IT Policy	0.0	0.0	0.0	0.0	0.0	0.0
IT Security	0.1	0.2	0.0	0.0	0.0	0.0
Instructional Technology, Multimedia Services, Student Computing	4.5	13.4	4.7	1.5	1.0	0.9
Network Infrastructure and Services	0.5	1.7	0.5	0.2	0.1	0.2
Operations, Data Center, Print Services	0.4	1.4	0.3	0.1	0.0	0.1
Research Computing, Academic Computing	0.7	1.8	0.9	0.2	0.3	0.4
Telephony	0.3	1.1	0.4	0.1	0.0	0.0
Web Support Services	0.4	0.9	0.5	0.3	0.0	0.2
Other Function	1.6	3.1	2.2	0.4	0.5	0.3

administrative information systems ranking second. Ranking the remaining functional areas for ALL respondents in descending order, staff are overall allocated as follows:

- Instructional Technology, Multimedia Services, Student Computing
- Network Infrastructure and Services
- Administration of IT Organization, Clerical Support
- Help Desk
- Operations, Data Center, Print Services
- Telephony
- Web Support Services

- Research Computing, Academic Computing
- Enterprise Infrastructure and Services, Identity Management
- IT Security
- IT Policy

In looking at Table 1-8, it is not surprising to find the highest percentages of students employed by the central IT organization allocated to three areas: Help Desk; Desktop Computing Support, User Support Services, Training, Computer Store; and Instructional Technology, Multimedia Services, Student

**Table 1-7
Percentage of FTE Staff in the Central IT Organization in Each Functional Area**

	ALL	DR	MA	BA	AA	OTHER
Administration of IT Organization, Clerical Support	9.2%	7.8%	8.9%	10.9%	8.9%	9.7%
Administrative/Enterprise Information Systems	17.9%	20.6%	18.6%	17.1%	14.4%	18.6%
Desktop Computing Support, User Support Services, Training, Computer Store	16.0%	12.0%	16.2%	17.0%	19.4%	15.4%
Enterprise Infrastructure and Services, Identity Management	3.5%	4.3%	3.0%	2.9%	3.2%	4.9%
Help Desk	7.3%	5.4%	7.4%	7.3%	8.6%	7.7%
IT Policy	1.2%	0.6%	1.0%	1.6%	1.4%	1.7%
IT Security	2.1%	1.8%	1.9%	2.3%	2.3%	2.5%
Instructional Technology, Multimedia Services, Student Computing	10.2%	9.8%	11.0%	10.2%	11.5%	7.5%
Network Infrastructure and Services	9.9%	10.0%	9.3%	11.3%	9.6%	9.3%
Operations, Data Center, Print Services	6.2%	9.3%	5.9%	4.4%	4.9%	6.4%
Research Computing, Academic Computing	3.8%	4.1%	3.7%	3.4%	4.5%	3.4%
Telephony	5.5%	8.4%	5.6%	4.7%	3.6%	4.5%
Web Support Services	5.1%	3.5%	5.1%	5.7%	6.1%	5.2%
Other Function	7.6%	6.2%	7.9%	5.8%	8.9%	10.0%

Computing. How these three are ranked varies among Carnegie groups, with doctoral universities employing the greatest number of students in the instructional technology area, BA schools employing the highest number of students on the help desk, and AA schools utilizing student employees in greatest numbers in the desktop computing support area.

Changes in average staffing levels from 2003 to 2004 are somewhat mixed, with FTE staff numbers in certain functional areas having increased while others decreased. Of the 13 functional areas, five showed an increase, seven a decrease, and one remained unchanged. In most of these cases, the absolute magnitude of change was not great, but some did show a reliable difference.

Most notably, Data Center Operations and

Research Computing, Academic Computing both decreased, while Instructional Technology and IT Security increased. A possible explanation for one of these changes may be that the category Research Computing, Academic Computing was formerly called Academic/Research Computing. De-emphasizing the academic computing part of the function by reversing the order on this year's survey may have encouraged respondents to identify more staff in the Instructional Technology function and fewer in the functional area Research Computing, Academic Computing.

Note also that on this year's survey a new functional area was added, Enterprise Infrastructure and Services, Identity Management. One can speculate that numbers previously reported in other functional areas may have

Table 1-8
Percentage of FTE Student Employees in the Central IT Organization in Each Functional Area

	ALL	DR	MA	BA	AA	OTHER
Administration of IT Organization, Clerical Support	2.1%	2.7%	2.1%	1.7%	3.0%	0.8%
Administrative/ Enterprise Information Systems	1.4%	1.8%	1.4%	1.2%	0.9%	1.3%
Desktop Computing Support, User Support Services, Training, Computer Store	24.6%	17.8%	21.9%	25.9%	38.0%	24.6%
Enterprise Infrastructure and Services, Identity Management	0.5%	0.7%	0.6%	0.2%	0.0%	1.6%
Help Desk	26.4%	19.6%	23.7%	35.6%	23.2%	34.8%
IT Policy	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
IT Security	0.4%	0.7%	0.2%	0.3%	0.0%	0.9%
Instructional Technology, Multimedia Services, Student Computing	26.3%	35.8%	28.7%	19.7%	21.1%	20.7%
Network Infrastructure and Services	3.6%	5.3%	3.8%	2.3%	2.4%	3.4%
Operations, Data Center, Print Services	1.9%	3.1%	1.9%	1.7%	0.5%	1.5%
Research Computing, Academic Computing	4.8%	3.9%	6.1%	2.8%	5.9%	5.1%
Telephony	2.4%	3.3%	3.6%	1.9%	0.6%	0.5%
Web Support Services	3.2%	3.1%	3.5%	4.1%	2.0%	2.6%
Other Function	8.4%	5.5%	8.9%	11.6%	13.5%	6.9%

been reported in this new area for 2004, thus accounting for decreases in those areas.

The aggregation of data for like Carnegie groups works well for purposes of simplicity, and in almost all cases no significant meaning is lost. However, the total central IT staff number (summing the IT staff numbers in all of the functional areas previously described) is more meaningful when similar Carnegie classes are not grouped, as in Table 1-9. The rather dramatic differences between the Doctoral Extensive and Doctoral Intensive schools shown there are of particular interest.

Given the changes described above in functional area definitions, the more important

trend to examine is the total number of central FTE IT staff this year compared to last year, and this number actually increased significantly. Looking at the 689 institutions in the matched data set, there was an average increase of 1.76 FTE staff in the total number, which represents a 2.7% increase. This significant increase in total centralized IT staff members was also observed within each individual Carnegie class, with the greatest absolute increase (2.82) among doctoral institutions. Total FTE student employee levels did not change significantly from 2003 to 2004.

Finally, in looking at these various tables related to staffing levels, the differences noted

**Table 1-9
Summary Statistics of Total Central FTE IT Staff**

	Mean	Median	Minimum	Maximum
ALL	60.5	29.9	1.0	652.0
DR EXT	203.4	174.0	14.0	652.0
DR INT	82.5	69.0	17.5	280.0
MA I	40.2	33.0	4.0	174.0
MA II	17.4	14.0	3.0	55.0
BA LA	23.6	22.0	3.5	69.5
BA GEN	12.7	9.5	1.0	77.0
AA	21.3	15.0	2.0	112.0
OTHER	71.5	49.5	1.0	507.0

**Table 1-10
Central FTE IT Staff as a Percentage of Total Campus FTE IT Staff**

	Mean Central FTE IT Staff	Mean Total Campus FTE IT Staff*	% Central FTE IT Staff
ALL	60.5	90.9	83.5%
DR EXT	203.4	358.7	66.4%
DR INT	82.5	117.9	75.9%
MA I	40.0	50.0	85.2%
MA II	17.4	19.6	91.4%
BA LA	23.6	26.3	90.4%
BA GEN	12.7	14.1	91.4%
AA	21.3	24.6	89.8%
OTHER	71.5	101.3	79.8%

*Central plus estimated distributed/departmental IT staff

among Carnegie groups may be due to the available funding or the complexity of the institution, but we also recognize that there might be a critical mass for staffing a given area, and thus the comparable percentages may be skewed somewhat due to this factor.

Centralized versus Decentralized Staffing

Table 1-10 shows the average number of central FTE IT staff for each of the Carnegie groupings in the first column, the average total campus FTE IT staff (derived from adding total central and distributed/departmental IT staff) in the second column, and the percentage of the total campus IT staff that the central IT staff represent in the third column. Clearly the number of distributed/departmental IT staff increases at a significant rate as the complexity of the institution increases, just as it did last year, with the

percentage of distributed staff greatest at Doctoral Extensive campuses, at 33.6%.

Highly complex, large, research-oriented institutions have a greater need for specialized, often disciplinarily trained IT staff in the departments and colleges to support faculty. These staff may focus far more on the academic applications in a particular field, while the central IT staff concern themselves more with infrastructure, system-wide applications, general support, and so forth.

In years past, there was a movement toward a more decentralized support model in all Carnegie groupings. The numerator in the ratio (number of centralized IT staff) described in Table 1-10 has stayed remarkably constant over the past three years. When comparing the 2002 and 2003 surveys, there was an overall increase in the average number of total cam-

Table 1-11
Students Supported per Central FTE IT Staff Member

	ALL	DR	MA	BA	AA	OTHER
Mean	160.2	127.2	162.9	134.8	246.0	125.2
Median	140.4	119.1	149.2	111.1	210.1	0.0
Minimum	0.0	23.2	56.5	40.6	29.1	0.0
Maximum	1,522.0	413.8	548.0	649.5	1,522.0	536.9

Table 1-12
Separate Salary Scales for IT Professionals

	ALL	DR	MA	BA	AA	OTHER
Yes	28.9%	42.5%	34.9%	14.8%	21.7%	27.1%
No	71.1%	57.5%	65.1%	85.2%	78.3%	72.9%

pus FTE staff (the denominator in the ratio), thereby effectively increasing the proportion of decentralized IT staff members. This trend continued from 2003 to 2004, with the denominator increasing across all Carnegie classes. That this distributed support is increasing somewhat consistently over time indicates that this is a ratio that should be carefully monitored over the upcoming years, in all types of institutions.

Staffing Ratios

While it is not clear whether stable ratios regarding staffing are possible, part of the Core Data Service effort is to provide benchmarks for comparison, not just descriptive statistics. Ratio analysis has long been a standard in examining business performance, and it is hoped that a variety of key ratios will emerge via the CDS that allow for effective comparison of IT data.

In terms of staffing, we were able to calculate a ratio for the number of students supported per central IT staff member, derived by dividing the number of FTE students (data reported by campuses to IPEDS³) by the number of FTE central IT staff (derived from the total of the numbers entered into the survey question about functional area support). This ratio is shown in Table 1-11.

When compared to last year, looking at the matched data set, the number of students supported per central IT staff member increased in 2004, by an average of 4.6%. This was most notable for associate’s colleges, which increased on average by 8%. If number of total

central IT staff actually increased across the board, as reported earlier, why would this ratio of students supported per central IT staff member not have decreased? The reason can be found in the other factor in this calculation, that is, number of FTE students. From 2003 to 2004, the student FTE numbers derived from IPEDS data, which were used to calculate this ratio, also increased significantly, across the board. Thus even though campuses appear to be adding central IT staff, these staffing increases may not be keeping pace overall with the increases in number of students who need to be supported.

Staffing Practices

The CDS also provides insight into a number of staffing practices. In terms of meeting market pressures related to hiring and keeping qualified staff, campuses turn to a variety of techniques. Overall, 28.9% of ALL respondents reported having separate salary scales for IT professionals, which did not change significantly from last year. Table 1-12 indicates that this practice is employed to a greater extent among DR and MA institutions (42.5% and 34.9%, respectively). Alternatively, participants were asked if their campuses use either separate IT job titles or a broadband IT classification and compensation system. Table 1-13 shows that nearly 62% of ALL respondents use one of these approaches, with a notably higher percentage of “yes” responses by doctoral universities. Once again, these figures did not

Table 1-13
Separate IT Job Titles or a Broadband IT Classification and Compensation System

	ALL	DR	MA	BA	AA	OTHER
Yes	61.7%	75.9%	64.7%	47.3%	56.6%	62.1%
No	38.3%	24.1%	35.3%	52.7%	43.4%	37.9%

Table 1-14
Dollar Amount in Budget per FTE IT Staff Member for Professional Development/Training

	ALL	DR	MA	BA	AA	OTHER
Mean	\$1,123	\$1,103	\$977	\$1,279	\$969	\$1,392
Median	\$1,000	\$1,000	\$1,000	\$1,200	\$800	\$1,003
Minimum	\$0	\$0	\$0	\$0	\$0	\$0
Maximum	\$13,500	\$3,500	\$3,655	\$3,625	\$4,000	\$13,500

Table 1-15
Campus Strategic Plan Includes Strategies and Directions for IT

	ALL	DR	MA	BA	AA	OTHER
Yes	80.6%	71.8%	83.0%	78.7%	89.8%	78.6%
No	19.4%	28.2%	17.0%	21.3%	10.2%	21.4%

Table 1-16
Campus Has a Stand-Alone IT Strategic Plan

	ALL	DR	MA	BA	AA	OTHER
Yes	73.1%	75.3%	78.0%	58.0%	81.9%	70.0%
No	26.9%	24.7%	22.0%	42.0%	18.1%	30.0%

change appreciably from last year.

Finally, ongoing professional development is critical to recruiting, retaining, and retraining qualified IT staff. Respondents were asked how many dollars are set aside in the annual budget and provided for professional development or training per FTE IT staff member. Table 1-14 shows a relative consistency in the statistical measures across all Carnegie classes, with the exception that baccalaureate schools invest significantly more in the development of their staffs than do doctoral and comprehensive universities and associate's colleges. On average, the amount of money that the central IT organization budgets annually per IT staff member for training remained remarkably consistent from last year to this year. This is a data point that will bear watching, given the importance of keeping staff up to date in skills and providing professional development opportunities for growth and job satisfaction.

IT Planning and Advisory Groups

In reference to IT planning, the core data survey asked whether the campus strategic plan includes strategies and directions for IT and whether or not the campus has a stand-alone IT strategic plan. As seen in Table 1-15, more than 80% of ALL respondents indicated that their institutional plans do address IT directions and strategies, which is a significant increase when compared to last year (about 78%). Furthermore, 73% of ALL institutions also have a stand-alone IT strategic plan, as shown in Table 1-16, which is roughly the same as last year. There are relatively high percentages of schools reporting stand-alone IT plans across all the Carnegie groups except for the BA group, which was significantly lower than all others.

The last two questions in the first section of the survey requested data on the various groups that provide feedback about IT strategies in general and then specifically about IT security and policy. Results for the former are reported

**Table 1-17
Groups Providing Advice on IT Strategy**

	ALL	DR	MA	BA	AA	OTHER
Trustee Committee	15.5%	26.4%	14.5%	20.1%	6.0%	9.3%
President's Cabinet/Council	57.2%	52.3%	61.0%	56.8%	68.7%	43.6%
Administrative Committee	57.8%	70.7%	58.1%	46.7%	54.8%	57.9%
Academic Committee/Faculty Senate	64.6%	75.9%	73.0%	54.4%	53.6%	61.4%
Technology Advisory Committee	78.2%	82.2%	78.0%	69.8%	83.7%	77.1%
Student Committee	25.4%	37.9%	30.7%	16.6%	18.7%	19.3%
State Agency or System/District Office	17.1%	15.5%	20.7%	4.1%	33.1%	9.3%
Other	13.7%	20.1%	13.3%	11.2%	6.0%	18.6%
No IT Advisory Groups	2.1%	2.3%	1.7%	3.0%	1.2%	2.9%

in Table 1-17, while results for the latter are reported in Table 4-22 in Section Four as part of the discussion about security. Respondents could mark as many responses as were applicable in each case, so the percentages do not total 100% but rather reflect the frequency of usage of each type of advisory group.

The number of institutions that involve varying campus constituents in the development of campus IT strategies is large and growing. The President's Cabinet/Council, Administrative Committee, Academic/Faculty Committee, and Technology Advisory Committee provide advice on IT strategy in significantly more than half of ALL responding institutions. Furthermore, all of these groups were reported to provide strategic advice in significantly greater numbers this year than last. This increase in input was also true for the Student Committee and State Agency or System/District Office, although significantly fewer than half of ALL schools still do not incorporate advice on IT strategy from these constituents.

One trend that we are watching is the percentage of campuses that have and use a Trustee Committee for advice on IT strategies. This is the case at more than a quarter of the doctoral universities and about 20% of BA schools, but only 6% of associate's colleges reported using advice from trustees. Although this number overall has increased once again from last year, it is not statistically significant in this second year of trend data.

Notes

1. Title data were normalized for analysis into the groupings shown in Table 1-1.
2. Carnegie classifications include more distinct breakouts than shown for most tables. For our analyses, we combined Doctoral/Research Universities-Extensive and Doctoral/Research Universities-Intensive into DR; Master's Colleges and Universities I and Master's Colleges and Universities II into MA; and Baccalaureate Colleges-Liberal Arts, Baccalaureate Colleges-General, and Baccalaureate/Associate's Colleges into BA. Our AA group includes institutions with the classification of Associate's Colleges. Our

OTHER category includes Tribal Colleges and schools in the Specialized Institutions category as well as those institutions without a Carnegie class (primarily international institutions).

3. The Integrated Postsecondary Education Data System (IPEDS) is a single, comprehensive data collection pro-

gram designed to capture data for the National Center for Education Statistics (NCES) for all institutions and educational organizations whose primary purpose is to provide postsecondary education in the United States. IPEDS collects institution-level data in such areas as enrollments, program completions, faculty, staff, and finances.

