EDUCAUSE

CORE DATA SERVICE

Fiscal Year 2004 Summary Report

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September 2005

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IT Financing and Management

Section two of the core data survey focuses on capturing financial data about information technology on campus for fiscal year 2003–2004 as well as IT management practices, many of which have financial implications. There are six major areas of analysis and discussion in this section, including sources and amounts of funding for IT, central IT personnel compensation, decentralized support costs for IT, technology fees, equipment and replacement planning, and outsourcing and service level agreements.

Sources and Amounts of Funding for IT

Understanding the funding and expenditures of IT organizations on college and university campuses has long been a challenge. One of the biggest hurdles in defining the parameters of the Core Data Service was coming up with a methodology that would be relevant for all types of institutions so that a common questionnaire could be used.

The 2004 survey requested data for eight sources of funding (plus an "other source" option) for the central IT organization thought to be applicable to most higher education institutions. Note that the survey requested actual allocations/revenues for the fiscal year 2003–2004, rather than projected budget for fiscal year 2004–2005. In Tables 2-1 and 2-2, these sources are listed with the median values for each of the Carnegie classes presented in thousands of dollars.

Note that one new category of funding was added to the 2004 survey, based on feedback we both received and discerned from last year's data collection. This new category was "proportional share of the dollar equivalent for systems or services provided at the system or district level." Statistical medians are presented because they offer a more accurate reflection of actual campus averages than statistical means, which provide much higher values (especially for doctoral campuses) due to the impact of having mega-campus values in the data set. As was the case last year, respondents were required to enter $0 for a source if they did not have any funding from that source, to ensure that a value was entered into each field.

Table 2-1 shows median values for all campuses, irrespective of the value entered for each source, including $0. Since many campuses do not have all of the IT funding sources listed, a great number of $0 values appear in this first table. Table 2-2 presents the data similarly to last year, that is, the values in each cell are the medians of those respondents who reported revenue other than $0 in a category, thus excluding from the data set the campuses that have no funding from a source. Keep in mind that in the Web-based interactive database component of the Core Data Service (available to all who completed the survey), means, medians, highs, and lows are available, and ranges are not as distorted when a more narrowly defined peer group is examined.

Not surprisingly, as institutional complexity increases, so does the amount of funding

Table 2-1
Median Amounts of Funding for the Central IT Organization
(in 1,000s of Dollars) by Funding Source for All Responding Institutions

Funding Source	ALL	DR	MA	BA	AA	OTHER
Operating appropriation to central IT organization	$2,300	$9,410	$2,176	$1,185	$1,086	$3,185
Capital appropriations for central IT organization	$180	$296	$150	$150	$102	$555
Revenue generated from student technology fees	$0	$0	$0	$0	$0	$0
Sale of central services (chargeback) to departments	$0	$0	$3,465	$0	$0	$0
Sale of central services to external entities	$0	$0	$0	$0	$0	$0
Resale of products to departments	$0	$0	$0	$0	$0	$0
Resale of products to external entities	$0	$0	$0	$0	$0	$0
Proportional share of dollar equivalent of systems/services provided at system or district level	$0	$0	$0	$0	$0	$0
Other source	$0	$0	$0	$0	$0	$0

from each source for the central IT organization. The dollar amounts for most of the funding sources are significantly greater for doctoral institutions compared to the other groups, while the amounts reported for AA and BA schools are generally the lowest. The relationship between Carnegie class and the dollar amount received by the central IT organization from these various funding sources is probably due primarily to differences in overall institutional resources. However, Carnegie classification is still a reliable predictor of the amount of money allocated to the IT organization from the campus operating budget, a source of IT funding reported by nearly 100% of all respondents. This may indicate that, for this most common funding source, the actual dollar amount provided to the IT organization may not only be due to level of overall campus resources but also to different practices in money allocation among Carnegie classes.

Tables 2-1 and 2-2 reveal that doctoral institutions reported higher values for capital appropriations than all other groups. Table 2-3 shows the percentages of campuses that have funding from the various sources, indicating that more doctoral than other types of institutions reported funding sources beyond operating appropriations. Particularly, these schools appear to rely much more heavily than all of the other Carnegie groups on charging for central services and, to a lesser degree, resale of products to generate revenue for the IT organization. As noted earlier, this year schools that were part of multicampus systems and districts were asked to estimate the dollar equivalent of IT systems and servic-

Table 2-2
Median Amounts of Funding for the Central IT Organization (in 1,000s of Dollars) for Institutions Not Reporting $0

Funding Source	*N* =	ALL	DR	MA	BA	AA	OTHER
Operating appropriation to central IT organization	887	$2,301	$9,420	$2,176	$1,185	$1,100	$3,200
Capital appropriations for central IT organization	587	$452	$897	$350	$300	$236	$120
Revenue generated from student technology fees	295	$460	$1,183	$468	$300	$307	$320
Sale of central services (chargeback) to departments	365	$721	$4,340	$249	$55	$48	$1,300
Sale of central services to external entities	125	$212	$452	$86	$6	$13	$156
Resale of products to departments	113	$74	$200	$26	$5	$4	$102
Resale of products to external entities	48	$23	$44	$23	$16	$10	$39
Proportional share of dollar equivalent of systems/services provided at system or district level	140	$500	$1,041	$600	$280	$138	$420
Other source	104	$285	$517	$285	$350	$225	$250

es that they received from their system or district office, thus potentially changing the total amount of funding reported by these schools.

Means and medians for total central IT funding appear in Table 2-4, with dramatic differences between Carnegie groups, as expected. (Note that the total was computed by summing the dollar values entered by respondents for all funding sources.) For comparable types of institutions in the matched data set, there was a 6.4% average increase, compared to an increase of 6.3% last year. However, any increases from last year to this year must be viewed with great caution, as the additional variable of system or district equivalent funding may have distorted direct comparisons. For that reason, no conclusions about changes since last year are reported here.

One of the goals of the Core Data Service is to allow for the exploration of these data to see if various business ratios can be found that would be both stable and useful. One ratio that we explored uses data reported through IPEDS[1] for FTE students and total central IT funding reported through our survey to derive the ratio of dollars spent per student. These ratios, shown in Table 2-5, are comparable to those obtained the last two years.

Central IT Personnel Compensation

In Table 2-6, the median total compensation (including benefits) paid by or through the central IT organization is shown for four categories of personnel (plus an "other" category) in thousands of dollars. Note, again, that median values of all respondents are presented here, rather than data only for those respondents who did not report $0 for a cate-

Table 2-3
Percentage of Central IT Organizations Reporting Various Sources of IT Funding

Funding Source	ALL	DR	MA	BA	AA	OTHER
Operating appropriation to central IT organization	99.7%	99.4%	100.0%	100.0%	99.4%	99.3%
Capital appropriations for central IT organization	66.0%	60.3%	62.7%	67.0%	67.0%	76.4%
Revenue generated from student technology fees	33.2%	43.1%	39.0%	18.3%	40.0%	21.0%
Sale of central services (chargeback) to departments	41.0%	83.3%	42.3%	25.4%	9.6%	42.1%
Sale of central services to external entities	14.0%	38.5%	10.4%	1.2%	2.4%	17.1%
Resale of products to departments	12.7%	29.3%	11.6%	8.9%	1.2%	12.1%
Resale of products to external entities	5.4%	10.9%	5.0%	3.6%	1.8%	5.7%
Proportional share of dollar equivalent of systems/services provided at system or district level	11.7%	8.6%	20.3%	6.5%	13.3%	5.0%
Other source	15.7%	24.7%	15.8%	13.0%	12.1%	12.1%

Table 2-4
Means and Medians for Total Central IT Funding (in 1,000s of Dollars)

	Mean	Median
ALL	$7,875	$3,378
DR EXT	$28,087	$23,197
DR INT	$9,863	$8,676
MA I	$5,006	$3,741
MA II	$1,957	$1,443
BA LA	$3,035	$2,683
BA GEN	$1,586	$1,097
AA	$2,359	$1,569
OTHER	$9,346	$5,286

gory of personnel. Thus, as explained earlier for the first question in this section, there are many cells in which $0 is the median because of the great number of respondents who do not employ all of these categories of personnel. Table 2-7 presents data for those institutions that reported compensation other than $0 by category of personnel, similarly to how these data were reported last year.

The total compensation numbers for fiscal year 2003–2004 differ significantly by Carnegie classification. As expected, the median com-

Table 2-5
Central IT Funding per FTE Student

	ALL	DR	MA	BA	AA	OTHER
Mean	$2,658	$1,390	$832	$1,249	$567	$12,397
Median	$803	$1,037	$754	$1,071	$514	$823

Table 2-6
Median Total Compensation for Various Types of Central IT Personnel (in 1,000s of Dollars) for All Responding Institutions

	ALL	DR	MA	BA	AA	OTHER
Staff	$1,500	$8,115	$1,491	$662	$702	$2,178
Students	$65	$368	$120	$44	$11	$20
Consultants	$1	$27	$14	$0	$0	$11
Contractors	$0	$1	$0	$0	$0	$1
Other	$0	$0	$0	$0	$0	$0

Table 2-7
Median Total Compensation for Various Types of Central IT Personnel (in 1,000s of Dollars) for Institutions Not Reporting $0

	N =	ALL	DR	MA	BA	AA	OTHER
Staff	890	$1,500	$8,115	$1,491	$662	$702	$2,178
Students	743	$97	$378	$127	$49	$35	$48
Consultants	450	$45	$144	$35	$20	$20	$87
Contractors	348	$52	$170	$40	$25	$20	$155
Other	23	$114	$206	$100	$140	$0	$333

Table 2-8
Percentage of Central IT Organizations That Employ Various Categories of Personnel

	ALL	DR	MA	BA	AA	OTHER
Staff	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Students	83.5%	97.1%	92.5%	92.3%	65.1%	62.1%
Consultants	50.6%	58.6%	51.9%	43.2%	42.2%	57.1%
Contractors	39.1%	50.0%	31.5%	35.5%	33.1%	50.0%
Other	2.6%	8.0%	2.1%	1.8%	0.0%	0.7%

pensation paid to each of these personnel types increases with institutional complexity; in each case, either AA or BA schools reported the lowest compensations and doctoral schools the greatest. This is consistent with the finding above for overall central IT funding, likely for the same reasons with respect to level of overall campus resources, and related to campus complexity, not merely size of the campus. Table 2-8 shows the percentages of campuses that employ each category of personnel.

In exploring ratios that might be helpful to campuses in managing their IT resources, we calculated the total of expenditures reported for IT staff as a function of total central IT funding, derived from the earlier question about allocations/revenues from the nine funding sources. (Note that by staff we mean specifically staff and not all types of personnel; that is, student employees, consultants, contractors, and other types of personnel are not included in this number.) The ratio of staff

Table 2-9
Percentage of Total Central IT Funding Spent on Central IT Staff Compensation

	ALL	DR	MA	BA	AA	OTHER
Mean	47.2%	48.8%	48.2%	44.4%	48.8%	45.3%
Median	46.5%	46.9%	46.4%	44.2%	49.1%	45.3%

Table 2-10
Percentage of Institutions That Cannot Estimate IT Expenditures Outside the Central IT Organization

	ALL	DR	MA	BA	AA	OTHER
IT compensation	24.4%	34.5%	24.1%	18.3%	20.5%	24.3%
Other IT expenditures	32.0%	39.1%	32.8%	28.4%	27.7%	31.4%

Table 2-11
Mean IT Expenditures Outside the Central IT Organization (in 1,000s of Dollars) for Institutions Where Such Expenditures Are Known

	N =	ALL	DR	MA	BA	AA	OTHER
IT compensation	673	$1,939	$8,866	$446	$104	$142	$1,692
Other IT expenditures	605	$2,476	$10,322	$642	$113	$261	$2,655

compensation to total funding showed no differences across Carnegie groups and is remarkably consistent, with about half of the total funding being spent on IT staff costs, as shown in Table 2-9. Maintaining a proper balance between people and technology has long been known to be important. The ratio developed from these data appears to provide some quantitative information about what is most common, irrespective of the nature of the institution, and might suggest an appropriate or acceptable balance. These values were very similar to those reported last year.

Decentralized IT Expenditures

This year's survey again sought to capture data about estimated compensation (including benefits) for IT personnel and other IT-related expenditures (hardware, software, and so forth) outside the central IT organization, that is, in administrative offices and academic departments. Such decentralized expenditures vary dramatically based on the type of institution.

As shown in Table 2-10, of ALL responding campuses, about two-thirds were able to make a reasonable estimate about what was spent on IT outside their central IT organizations (including reporting $0 spent). Note that 217 institutions reported that the total compensation paid to IT personnel outside the central IT organization is unknown, and 285 reported not knowing the amount spent on other, non-personnel expenditures. The group most frequently reporting not knowing these amounts was doctoral institutions, in all likelihood because of their complexity and distributed nature. Our assumption is that campuses reporting $0 are essentially completely centralized, with all IT personnel being employed within the central IT organization and all IT-related expenditures made at the institutional rather than departmental level.

The average total compensation reported for IT personnel employed outside the central IT organization differs considerably by Carnegie class, as seen in the first row of Table 2-11. In fact, comparisons revealed significant differences among all groups except those between AA and BA. The second row in this table reflects the expenditures by units outside the central IT organization on equipment and

Table 2-12
Central IT Personnel Expenditures as a Percentage of Total Campus IT Personnel Expenditures

	ALL*	DR	MA	BA	AA	OTHER
Mean	83.6%	62.4%	87.2%	93.1%	91.0%	78.8%
Median	89.3%	60.6%	91.4%	94.2%	96.8%	82.9%
* *N* = 673						

Table 2-13
Total Central IT Funding as a Percentage of Total Campus IT Expenditures

	ALL*	DR	MA	BA	AA	OTHER
Mean	81.6%	61.7%	85.4%	92.6%	86.5%	75.9%
Median	87.1%	63.9%	89.4%	95.2%	88.1%	77.8%
**N* = 551						

all other non-personnel items. As with other IT financing data points, the average of IT expenditures outside the central IT organization for the most part increased with institutional complexity. The sum of these two numbers (personnel compensation plus all other expenditures) is an estimate of how much is being spent on average by institutions outside their central IT organizations, where such expenditures are known or can be estimated.

With the increased specialization in IT, especially in academic computing, it is likely that the relative extent of decentralized versus centralized computing will only increase. To see what trends might occur in the future, we developed two ratios as a baseline for such comparisons.

The first of these ratios has to do with central IT personnel compensation as a percentage of total campus IT personnel expenditures, with the latter derived by combining all centralized and decentralized IT compensation numbers reported for schools where non-central expenditures were known or could be estimated. As shown in Table 2-12, this percentage is quite high for BA and AA schools, which appear to have predominantly central IT operations. This percentage is significantly lower for MA and OTHER institutions than BA and AA schools, and the percentage for doctoral institutions is significantly lower than all other groups. This is essentially an indicator of the extent of decentralization occurring in these types of schools. There were no significant changes in these ratios for the various Carnegie groups from 2003 to 2004.

The second ratio looks at total central IT funding as a percentage of total campus IT expenditures, with the latter derived from adding total central IT organization funding to estimated IT-related personnel and other IT expenditures outside the central IT organization, for schools reporting known expenditures (including $0). The mean and median percentages are shown in Table 2-13. There is a pattern similar to the first ratio, but the ratios here are somewhat lower for all groups, suggesting that schools are more decentralized when all IT-related expenditures (not just personnel) are considered. This appears to be true especially for AA colleges, for which this ratio is closer to MA than BA schools. There were no significant changes in this ratio for the various Carnegie groups from 2003 to 2004.

Technology Fees

The percentage of schools that reported charging a general student technology fee differs significantly among Carnegie classes, as seen in Table 2-14. The highest percentage was found among AA and MA schools, with 62% and 61%, respectively, of these institutions charging a general student technology fee. Approximately 57% of doctoral institutions charge such a fee, while about 43% of BA schools reported doing so.

Not only does the percentage of schools charging a technology fee differ by Carnegie

Table 2-14
Percentage of Campuses That Charge General Technology Fees

	ALL	DR	MA	BA	AA	OTHER
Yes	52.4%	56.9%	61.0%	43.2%	62.0%	31.4%
No	47.6%	43.1%	39.0%	56.8%	38.0%	68.6%

Table 2-15
Methods of Charging a General Technology Fee

	ALL*	DR	MA	BA	AA	OTHER
Flat fee per year	13.3%	8.1%	11.6%	26.0%	1.9%	36.4%
Flat fee per semester	41.4%	46.5%	50.3%	49.3%	19.4%	38.6%
Flat fee per quarter	3.0%	5.1%	4.1%	1.4%	1.9%	0.0%
Percentage of tuition	3.4%	2.0%	4.1%	2.7%	5.8%	0.0%
Flat fee per credit hour	31.8%	32.3%	19.7%	12.3%	68.0%	18.2%
Other	7.1%	6.1%	10.2%	8.2%	2.9%	6.8%
**N* = 466						

Table 2-16
Total Dollars Generated per Campus from General Technology Fees
(in 1,000s of Dollars) for Institutions That Charge Such Fees

	ALL*	DR	MA	BA	AA	OTHER
Mean	$1,310	$3,404	$1,132	$375	$577	$463
Median	$592	$2390	$700	$250	$409	$275
**N* = 466						

class, but so does the basis for charging the fee, as seen in Table 2-15. Charging a flat fee per semester was the most common method for all Carnegie classes except for AA institutions, for which basing the fee on credit hours was by far the most popular strategy. Overall, the practice of charging technology fees was consistent with the pattern found last year.

The total of dollars generated by student technology fees also differs significantly as a function of Carnegie classification, as seen in Table 2-16, which shows the mean and median total dollars collected per campus from technology fees for those schools that charge a technology fee. Obviously, with more students on campus, larger schools (for example, doctoral institutions) would be expected to produce a larger amount of money from a general student technology fee. However, after controlling statistically for indicators of campus size (FTE students, number of faculty), Carnegie class was still a reliable predictor of the total amount of money generated from the technology fee. Thus, differences in this dollar amount across Carnegie classes cannot be fully explained by differences in campus size.

Comparing last year's and this year's data for institutions that completed both surveys and reported charging a general technology fee, we found a significant increase in the total dollars collected in 2004, compared with 2003. The biggest changes were found at doctoral and AA institutions.

Which campus constituents participate in deciding how money generated by the technology fee is spent is fairly consistent across Carnegie classes, as seen in Table 2-17. However, the percentages of schools reporting that students participate in this determination differ significantly among groups. A greater percentage of doctoral, MA, and AA schools (36.4%, 31.3%, and 30.1%, respectively) indicated that students are involved, compared to BA schools (5.5%), where such a practice appears to be less com-

Table 2-17
Determining How Technology Fees Are Spent

	ALL*	DR	MA	BA	AA	OTHER
Students	27.7%	36.4%	31.3%	5.5%	30.1%	27.3%
IT administration	54.9%	57.6%	57.8%	46.6%	58.3%	45.5%
Campus committee	37.6%	43.4%	35.4%	17.8%	53.4%	27.3%
Senior administration	67.2%	68.7%	66.7%	68.5%	70.9%	54.5%
State agency/system	5.6%	5.1%	6.8%	0.0%	9.7%	2.3%
Funds restricted by policy	21.2%	24.2%	20.4%	16.4%	25.2%	15.9%
Other means determine	5.6%	8.1%	3.4%	6.8%	3.9%	9.1%
*N = 466						

Table 2-18
Separate Residence-Hall Network Connection Fee for All Respondents

	ALL	DR	MA	BA	AA	OTHER
Yes	15.1%	26.4%	17.8%	7.7%	1.8%	20.7%
No	62.4%	72.4%	77.2%	88.8%	12.7%	51.4%
No network connections	3.8%	0.6%	0.4%	0.6%	10.8%	9.3%
No residence halls	18.8%	0.6%	4.6%	3.0%	74.7%	18.6%

Table 2-19
Separate Residence-Hall Network Connection Fee for Institutions with Networked Residence Halls

	ALL*	DR	MA	BA	AA	OTHER
Yes	19.4%	26.7%	18.8%	8.0%	87.5%	71.3%
No	80.6%	73.3%	81.2%	92.0%	12.5%	28.7%
*N = 689						

mon. There is a similar finding concerning the role of a campus committee in deciding how the technology fee money is spent.

Another form of technology fee we examined has to do with whether a separate fee for residence-hall network connections is charged (see Table 2-18). Overall, charging such a fee is not a widespread practice, with only about 15% of ALL responding institutions reporting doing so. The charging of such a fee is strongly related to Carnegie class. This is not surprising, given the dramatic differences among Carnegie classes in the percentage of institutions with residence halls, shown in the fourth row of this table.

Examining only those schools with residence halls that have network connections (see Table 2-19) similarly revealed that the practice of charging a separate fee for residence-hall network connections is significantly related to Carnegie class. This practice is most common among associate's colleges that have residence halls (87.5%) and least common among BA schools (8.0%). Overall, only about 19% of ALL institutions that have networked residence halls reported charging a separate network connection fee.

Equipment and Replacement Planning

As institutional complexity increases, so does the number of computers owned or leased by the institution, as shown in Table 2-20. Approximately 30% of the MA, just over 40% of the AA,

Table 2-20
Percentage of Institutions Owning/Leasing Various Numbers of Computers

Number of Computers	ALL	DR	MA	BA	AA	OTHER
Up to 500	12.2%	0.6%	5.4%	30.8%	13.9%	14.3%
501–1,000	19.4%	0.6%	24.1%	31.4%	26.5%	12.1%
1,001–2,000	25.3%	4.0%	34.4%	29.6%	38.6%	15.0%
2,001–3,000	11.6%	9.8%	14.5%	8.3%	13.9%	10.0%
3,001–5,000	11.7%	17.8%	15.4%	0.0%	5.4%	19.3%
5,001–10,000	11.7%	33.3%	6.2%	0.0%	1.8%	20.0%
More than 10,000	8.1%	33.9%	0.0%	0.0%	0.0%	9.3%

Table 2-21
Number of Campus-Owned or Campus-Leased Computers

	ALL	DR	MA	BA	AA	OTHER
Mean	4,063	11,715	2,142	957	1,499	4,650
Median	1,640	7,650	1,600	750	1,200	3,000

Table 2-22
Number of Campus-Owned/Leased Computers per FTE Student

	ALL	DR	MA	BA	AA	OTHER
Mean	0.88	0.69	0.41	0.56	0.39	3.10
Median	0.51	0.51	0.38	0.47	0.36	0.49

and about 60% of the BA schools responding to our survey reported owning or leasing 1,000 or fewer computers, while nearly two-thirds of doctoral schools reported owning or leasing more than 5,000 computers, with half of this group reporting owning or leasing more than 10,000 computers. An examination of the means and medians of total number of campus-owned or campus-leased computers similarly illustrates this pattern, as seen in Table 2-21. It is worth noting that since last year the number of computers on campus not only increased overall but also increased for each of the Carnegie groups. This increase would suggest that campuses continue to meet technology needs by adding computers to their inventory.

In an attempt to better understand the total number of computers owned or leased by a campus and to be able to make more relevant comparisons, a ratio was calculated of the number of computers per student FTE (see Table 2-22). The number of computers owned or leased by an institution per FTE student also varies significantly across Carnegie classes. This pattern of ratios across the Carnegie groups was nearly identical with the pattern found in 2003.

While the number of computers may be of interest to those who manage information technology, the biggest challenge faced by all IT managers is assuring that this equipment is replaced in a systematic fashion in order to capitalize on the newer technologies and to reduce support costs. Therefore, the core data survey explored a variety of issues related to computer replacement.

The planned replacement cycle for campus computers reported by respondents varies by Carnegie class, as seen in Table 2-23. In previous years of the survey, participants responded with open-ended answers describing their replacement cycles; EDUCAUSE then categorized these responses based upon a seven-level normalization pattern (no replacement plan, less than 3 years, 3 years, 3–4 years, 4 years,

Table 2-23
Percentage of Campuses Using Various Computer Replacement Cycles in Their Planning Efforts

Replacement Cycle	ALL	DR	MA	BA	AA	OTHER
None	12.8%	21.8%	13.7%	8.3%	7.2%	12.1%
< 3 years	0.8%	1.1%	0.8%	0.6%	0.0%	1.4%
3 years	17.6%	20.7%	19.1%	14.2%	12.7%	21.4%
3–4 years	28.0%	25.9%	29.9%	24.9%	27.1%	32.1%
4 years	19.3%	12.1%	16.2%	24.9%	28.3%	16.4%
> 4 years	5.6%	0.6%	6.6%	8.3%	7.2%	5.0%
Different cycles for different computers	15.8%	17.1%	13.7%	18.9%	17.5%	11.4%

Table 2-24
Percentage of Campuses with Replacement Funding in the Budget for Campus Computers

% Computers with Funding	ALL	DR	MA	BA	AA	OTHER
0%	12.4%	12.6%	12.9%	7.1%	16.9%	12.1%
Up to 19%	10.6%	25.3%	4.6%	5.9%	7.8%	11.4%
20–39%	16.0%	22.4%	16.2%	11.8%	15.7%	12.9%
40–59%	9.3%	10.9%	11.2%	9.5%	4.2%	10.0%
60–79%	10.9%	12.6%	10.0%	6.5%	14.5%	11.4%
80–100%	40.9%	16.1%	45.2%	59.2%	41.0%	42.1%

Table 2-25
Estimated Percentage of Campus Computers with Funded Replacement Cycles

	ALL	DR	MA	BA	AA	OTHER
Mean	55.6%	36.6%	59.3%	68.7%	55.8%	56.6%
Median	60.0%	25.0%	70.0%	85.0%	65.0%	60.0%

greater than 4 years, and different replacement cycles for different types of computers). This year, we presented these seven choices on the survey and asked respondents to choose one. The patterns are quite different from last year, and therefore great caution should be exercised in doing comparisons to previous years. Based on this new methodology, nearly two-thirds of all responding institutions endorse a replacement cycle of 3 years, 3–4 years, or 4 years. This percentage is similar across Carnegie classes. However, the percentage of doctoral institutions reporting no planned replacement cycle is significantly greater than other groups (21.8%).

It is one thing to have a plan for replacement of computers and quite another to have the funds for this replacement embedded (that is, actually funded) in the budget. Table 2-24 presents a profile of each Carnegie group related to the percentage of computers actually funded in the budget. An alternative presentation of these data is shown in Table 2-25, which provides the mean and median percentages of campus computers that have replacement funding in the budget. For those institutions in our matched data set the estimated percentage of campus computers with replacement cycles funded in the budget remained constant for MA and BA schools,

Table 2-26
Percentage of Campus Computers Replaced in Previous Fiscal Year

% Computers Replaced	ALL	DR	MA	BA	AA	OTHER
0%	1.3%	0.6%	0.4%	3.0%	0.6%	2.9%
Up to 5%	3.6%	5.7%	2.9%	3.0%	3.6%	2.9%
6–10%	7.4%	6.3%	8.3%	4.1%	10.2%	7.9%
11–15%	10.0%	7.5%	12.9%	7.7%	14.5%	5.7%
16–20%	22.4%	25.9%	19.1%	25.4%	21.1%	21.4%
21–25%	24.0%	26.4%	22.0%	26.0%	23.5%	22.9%
26–30%	14.6%	16.1%	15.4%	13.0%	10.8%	17.9%
31–35%	11.0%	9.8%	12.4%	10.1%	9.6%	12.9%
36–40%	2.9%	1.1%	3.3%	3.6%	4.2%	2.1%
More than 40%	2.7%	0.6%	3.3%	4.1%	1.8%	3.6%

Table 2-27
Comparison of Actual Computer Replacement to the Expressed Plan for Institutions with Replacement Plans

	ALL*	DR	MA	BA	AA	OTHER
On plan	59.7%	66.7%	60.0%	63.4%	54.4%	54.2%
Behind plan	32.4%	31.4%	32.0%	27.6%	36.0%	35.5%
Ahead of plan	7.9%	1.9%	8.0%	8.9%	9.6%	10.3%
**N* = 635						

increased for doctoral institutions, and decreased for associate's colleges.

Over 50% of ALL institutions reported that at least 60% of their campus computers are on a funded replacement cycle, and this was true for all Carnegie groups except for doctoral institutions. Nearly 60% of all BA schools reported that 80–100% of their campus computers are on a funded replacement cycle, whereas about 60% of doctoral schools reported that fewer than 40% of their campus computers are on such a cycle.

Having a replacement plan and having the replacement funds actually budgeted tells part of the story, but the rest of the story is told by looking at data about how many computers were actually replaced the previous fiscal year. These data are shown in Table 2-26. The results were essentially the same as those found in 2003.

For those campuses that reported a plan for computer replacement, the data for the number of computers actually replaced were compared with the expressed plan. If the actual replacement numbers were within 5% of the plan, campuses were grouped into a category called "on plan." If they replaced more than this percentage, they were labeled "ahead of plan," and if they replaced less than this percentage, they were labeled "behind plan." These data are presented in Table 2-27. Although this methodology is not perfect, it does give one a sense that about two-thirds of campuses have a plan and are on or ahead of that plan, despite economic hardships in higher education. There are no differences among the Carnegie groups for this variable, although the doctoral group had the highest percentage of campuses on plan. However, in looking at the matched data set, we saw some slippage in the percent of campuses on or ahead of plan, most notably in DR and AA institutions.

Finally, we examined the data related to capital replacement of the IT infrastructure other than computers, including renewal of

Table 2-28
Campuses with a Funding Model That Includes Renewal of the IT Capital Plant

	ALL	DR	MA	BA	AA	OTHER
Yes	51.8%	52.9%	50.6%	50.3%	48.8%	57.9%
No	48.2%	47.1%	49.4%	49.7%	51.2%	42.1%

Table 2-29
Percentage of Campuses Using External Suppliers to Run Various IT Functions

IT Function	ALL	DR	MA	BA	AA	OTHER
Administrative systems—transaction systems operation	14.0%	7.5%	18.3%	16.6%	12.0%	14.3%
Administrative systems—application development	8.2%	3.4%	7.9%	5.3%	10.8%	15%
Administrative systems—project management for implementations	6.1%	6.3%	5.0%	3.6%	5.4%	11.4%
All or nearly all central IT staff and services	2.1%	0.6%	4.1%	0.6%	3.0%	1.4%
CIO/top IT administrator	2.1%	0.6%	3.7%	1.2%	4.2%	0.0%
Computer operations	2.8%	1.7%	5.0%	1.2%	4.2%	0.7%
Data center	3.6%	1.7%	7.9%	0.6%	3.6%	2.1%
Desktop computer installation, maintenance, and/or repair services	9.0%	11.5%	8.7%	4.7%	4.2%	17.1%
Distance education	4.3%	0.0%	7.5%	3.0%	7.2%	2.1%
Help desk	4.3%	2.3%	6.2%	0.0%	4.2%	8.6%
Instructional/course management system	11.1%	9.2%	15.4%	5.9%	16.3%	6.4%
Multimedia services	1.5%	1.7%	1.2%	1.2%	1.8%	1.4%
Network services	4.4%	3.4%	5.8%	2.4%	4.2%	5.7%
Portal	2.9%	1.1%	5.0%	0.6%	3.6%	3.6%
Print services	6.9%	8.0%	7.1%	4.7%	4.8%	10.0%
Remote access to network services	4.7%	6.3%	4.1%	3.0%	3.0%	7.9%
Telephone services	15.8%	17.2%	15.8%	16.0%	13.3%	17.1%
User support services	2.5%	1.1%	4.1%	0.6%	3.0%	2.9%
Web development and/or hosting	15.5%	12.6%	16.2%	21.3%	11.4%	15.7%
Other IT service	10.2%	17.8%	6.2%	7.7%	10.8%	10.0%
No external suppliers	47.0%	43.1%	47.7%	48.5%	50.0%	45.0%

the wiring, electronics associated with the network, and so forth. Approximately half of ALL institutions reported that the current funding model of their campuses includes renewal of the capital plant, as seen in Table 2-28. The proportion of schools reporting this

Table 2-30
Percentage of Campuses Using Written Service Level Agreements for Various IT Services

IT Service	ALL	DR	MA	BA	AA	OTHER
Academic/research support	12.4%	18.4%	14.1%	4.7%	6.6%	17.9%
Administrative/ enterprise information systems support	25.4%	25.3%	30.3%	19.5%	18.7%	32.1%
Data center services	20.3%	35.1%	22.8%	5.9%	12.7%	24.3%
Desktop/user support services/help desk	29.6%	46.0%	29.0%	13.0%	19.9%	41.4%
Instructional technology support	13.5%	16.7%	17.4%	7.1%	10.2%	14.3%
Multimedia services	9.3%	13.8%	10.4%	4.1%	7.8%	10.0%
Network services	24.2%	29.3%	24.5%	15.4%	18.7%	34.3%
Print services	8.9%	6.9%	7.1%	4.1%	12.0%	16.4%
Telephone services	20.8%	23.0%	26.6%	11.2%	15.1%	26.4%
Web support services	4.9%	22.4%	12.9%	6.5%	11.4%	23.6%
Other IT services	6.7%	14.4%	7.1%	2.4%	1.2%	8.6%
No SLAs	52.6%	33.9%	49.4%	69.8%	69.9%	40.0%

did not differ significantly across Carnegie classes, nor were there any changes in results from last year.

Service Level Agreements and Outsourcing

The use of external suppliers to run a campus IT function appears not to be a common practice overall. About 47% of ALL institutions reported that they do not outsource or use application service providers (ASPs), as shown in Table 2-29. There was a non-significant difference by Carnegie class when comparing the percentages of schools that reported outsourcing, with AA schools more often and doctoral institutions less often reporting outsourcing arrangements.

Overall, the percentage of institutions in the matched data set that reported using external suppliers to run various IT functions increased over the past year, from 48% to 53%. In particular, the use of outsourced providers increased significantly for Web development and/or hosting, instructional/course management systems, administrative systems, and desktop computer installation, maintenance, and/or repair services.

The use of service level agreements (SLAs) was also analyzed, with results shown in Table 2-30. About 47% of ALL responding institutions reported some use of SLAs, with the percentage of institutions using no SLAs varying across Carnegie groups. The percentage of institutions using such agreements was significantly related to Carnegie class, with more BA and AA schools reporting no use of SLAs. Looking at the matched data set, the percentage of schools using written service level agreements decreased 3% over the past year.

Notes

1. The Integrated Postsecondary Education Data System (IPEDS) is a single, comprehensive data collection program 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.