This EDUCAUSE Core Data Service Almanac summarizes data submitted by AASCU institutions in 2014. Colleges and universities use CDS benchmarks to inform IT strategic planning and management. Some publicly available data from the Integrated Postsecondary Education Data System (IPEDS, www.nces.ed.gov/ipeds/) are used in calculating metrics. Reported statistics are either an estimated proportion of the population or an estimated median (rather than a mean). CDS participants can access data at www.educause.edu/coredata; non-participants can access another CDS site. Some publicly available data from the Integrated Postsecondary Education Data System (IPEDS, www.nces.ed.gov/ipeds/) are used in calculating metrics. Reported statistics are either an estimated proportion of the population or an estimated median (rather than a mean). CDS participants can access data at www.educause.edu/coredata; non-participants can access this site. EDUCAUSE (www.educause.edu) is a higher education technology association, with an estimated 60,000 active members in over 40 countries. EDUCAUSE data, research, and analysis help higher education leaders understand IT challenges and take actions to address them in ways that manage risk and support institutional strategy.

### Core Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total central IT spending per institutional FTE (students, faculty, and staff)</td>
<td>$778</td>
</tr>
<tr>
<td>Total central IT spending per institutional employee (faculty and staff)</td>
<td>$4,444</td>
</tr>
<tr>
<td>Total central IT spending per student FTE</td>
<td>$928</td>
</tr>
<tr>
<td>IT help desk FTEs per 1,000 institutional FTEs</td>
<td>2.1</td>
</tr>
<tr>
<td>Central IT outsourcing spending as a percentage of total central IT spending</td>
<td>1%</td>
</tr>
<tr>
<td>Central IT staff as a percentage of institutional employees (faculty and staff)</td>
<td>5%</td>
</tr>
<tr>
<td>Student workers as a percentage of total central IT FTE</td>
<td>22%</td>
</tr>
<tr>
<td>Central IT FTEs per 1,000 institutional FTEs</td>
<td>7.4</td>
</tr>
<tr>
<td>Student technology fee (annualized)</td>
<td>$250</td>
</tr>
<tr>
<td>Percentage of central IT spending on running the institution</td>
<td>78%</td>
</tr>
<tr>
<td>Percentage of central IT spending on growing the institution</td>
<td>12%</td>
</tr>
<tr>
<td>Percentage of central IT spending on transforming the institution</td>
<td>7%</td>
</tr>
<tr>
<td>Organizational capacity to deliver analytics services (1 = low, 5 = high)</td>
<td>3.3</td>
</tr>
<tr>
<td>Organizational capacity to govern IT (1 = low, 5 = high)</td>
<td>2.6</td>
</tr>
<tr>
<td>Organizational capacity to manage IT risk (1 = low, 5 = high)</td>
<td>3.0</td>
</tr>
<tr>
<td>Educational technology services spending as a percentage of central IT spending</td>
<td>11%</td>
</tr>
<tr>
<td>Central IT educational technology services FTEs per 1,000 institutional FTEs</td>
<td>1.0</td>
</tr>
<tr>
<td>Student FTE per lab/cluster workstation provided by central IT</td>
<td>221</td>
</tr>
<tr>
<td>Student FTE per virtual lab/cluster workstation provided by central IT</td>
<td>116</td>
</tr>
<tr>
<td>Student FTE per kiosk workstation provided by central IT</td>
<td>638</td>
</tr>
<tr>
<td>Student FTE per virtual lab/cluster workstation provided by central IT</td>
<td>116</td>
</tr>
<tr>
<td>Student FTE per laptop/tablet provided by central IT for checkout or loan</td>
<td>221</td>
</tr>
<tr>
<td>Institutions with collaborative spaces</td>
<td>76%</td>
</tr>
<tr>
<td>Institutions with team-based classrooms</td>
<td>48%</td>
</tr>
<tr>
<td>Institutions with makerspaces</td>
<td>9%</td>
</tr>
<tr>
<td>Organizational capacity to deliver e-learning services (1 = low, 5 = high)</td>
<td>3.7</td>
</tr>
<tr>
<td>Organizational capacity to deliver student success technologies (1 = low, 5 = high)</td>
<td>3.5</td>
</tr>
<tr>
<td>Support services spending as a percentage of central IT spending</td>
<td>14%</td>
</tr>
<tr>
<td>Central IT support services FTEs per 1,000 institutional FTEs</td>
<td>2.1</td>
</tr>
<tr>
<td>Desktop computing FTEs per 1,000 institutional FTEs</td>
<td>0.8</td>
</tr>
<tr>
<td>IT help desk FTEs per 1,000 institutional FTEs</td>
<td>0.7</td>
</tr>
<tr>
<td>Institutions offering self-service options for central IT help desk services</td>
<td>94%</td>
</tr>
<tr>
<td>Institutions offering tier 2/level 2 service or higher for central IT help desk</td>
<td>79%</td>
</tr>
<tr>
<td>Institutions with full deployment of private-cloud storage</td>
<td>43%</td>
</tr>
<tr>
<td>Institutions with full deployment of virtual desktop infrastructure</td>
<td>47%</td>
</tr>
<tr>
<td>Institutions with full deployment of application virtualization</td>
<td>50%</td>
</tr>
</tbody>
</table>

### Educational Technology Services

- **Most commonly deployed e-learning technologies:**
  - Full-function online learning delivery system (95%)
  - Real-time web- or videoconferencing online learning environment (90%)
  - Collaboration tools for learning (85%)
- **Most commonly deployed student success technologies:**
  - Degree audit (84%)
  - Credit transfer/articulation system (68%)
  - Academic early-alert system (59%)
- **Classroom technologies most likely to be deployed soon:**
  - Wireless projection (29%)
  - Remote monitoring for technical support (20%)
  - Automatic lecture-capture systems (audio only) (17%)
## Research Technology Services

- 0% Research technology services spending as a percentage of central IT spending
- 0.0 Central IT research technology services FTEs per 1,000 institutional FTEs
- 17% Institutions providing integrated IT support for research computing
- 38% Institutions planning to provide integrated IT support for research computing
- 24.5 TFLOPS capacity among institutions with high-performance computing
- 2.7 Organizational capacity to deliver research computing services (1 = low, 5 = high)

### Most common IT-related research consulting and support services:
- Review and/or approval of other technical aspects of research projects (96%)
- Consulting/support for storage solutions and data access (90%)
- Review and/or approval of information security plans for research involving sensitive data (90%)
- Review and/or approval of NSF-required data management plans (90%)

### Services most commonly made available to external entities:
- Access to specialized scientific apparatus (19%)
- High-performance computing (18%)
- Storage resources (12%)

### Most commonly deployed research computing systems and technologies:
- Videoconferencing (78%)
- Specialized software (65%)
- High-performance internal network (60%)

## Data Centers

- 3% Data center spending as a percentage of central IT spending
- 0.1 Central IT data center FTEs per 1,000 institutional FTEs
- 28% Institutions using commercial data center services
- 74% Institutions hosting or participating in cross-institutional data center services
- 67% Institutions using SaaS to provide data center services
- 19% Institutions using PaaS to provide data center services
- 28% Institutions using IaaS to provide data center services
- 33% Institutions that tested data center disaster recovery plans in past year
- 2% Institutions with no data center disaster recovery plans in place

## Communications Infrastructure

- 12% Communications infrastructure spending as a percentage of central IT spending
- 0.5 Central IT communications infrastructure FTEs per 1,000 institutional FTEs
- 70% Access points that are 802.11n
- 0% Access points that are 802.11ac
- 38% Ports that are PoE capable
- 6.0 Expected service lifetime of core/backbone network access layer (years)
- 0.5 Wired network hosts per wired network port
- 9.6 Wireless network hosts per wireless port
- 51% Institutions that provide ubiquitous cell service

### Services provided in student housing with data networks:
- Landlines in some or all rooms (66%)
- Managed streaming services (14%)

### Communications infrastructure technologies most likely to be deployed soon:
- IPv6 (41%)
- Unified communications and collaboration (39%)
- Session initiation protocol (SIP) (32%)

## Information Security

- 2% Information security spending as a percentage of central IT spending
- 0.1 Central IT information security FTEs per 1,000 institutional FTEs
- 3.1 Organizational capacity to provide information security (1 = low, 5 = high)
- 51% Institutions that are members of an authentication federation (e.g., InCommon)
- 81% Institutions that have conducted any sort of IT security risk assessment

### Most commonly deployed information security systems and technologies:
- Secure remote access (88%)
- Malware protection (87%)
- Secure wireless access (87%)

## Information Systems and Applications

- 17% Information systems spending as a percentage of central IT spending
- 1.0 Central IT information systems FTEs per 1,000 institutional FTEs

### Systems most commonly vendor hosted (IaaS):
- Customer relationship management (CRM) (13%)
- E-mail: student (12%)
- E-mail: faculty/staff (7%)

### Systems most commonly vendor managed (PaaS):
- E-mail: student (4%)
- Library (4%)
- Learning (course) management (4%)
- Grants management: preaward (4%)

### Systems most commonly vendor managed (SaaS):
- E-mail: student (54%)
- Customer relationship management (CRM) (34%)
- Learning (course) management (33%)

### Systems most likely to be replaced in the next three years:
- IT service desk management (33%)
- Customer relationship management (CRM) (32%)
- E-mail: faculty/staff (31%)

### Systems most commonly mobile friendly
- Learning (course) management (65%)
- E-mail: student (62%)
- Web content management (62%)

* Sample size of fewer than 15 institutions