Welcome

2012 Education Technology Market Watch
Beyond the Beltway for K-12 and Higher Education

Center for Digital Education | TechAmerica | Government Technology
Education Market Forecast 2012

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You are Here

• Other sectors have embraced technology and transformed
  – Industry – 20 years ago
  – Federal government – 15 years ago
  – State and local government – 10 years ago
• Higher ed – began 5 years ago
  – Consolidation/virtualization at the data center
  – Routine student services online not in line
• K12 – just building steam
  – Network upgrades
  – Digital content, 1-to-1/BYOD
  – Storage requirements suddenly skyrocketing
  – digital presentation tools, whiteboards, projectors are standard
  – Unified communication for collaboration & distance learning
## Market Size by Enrollment

<table>
<thead>
<tr>
<th>Enrollment Type</th>
<th>Number of Entities</th>
<th>Est. Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Four Year</td>
<td>672</td>
<td>7,709,197</td>
</tr>
<tr>
<td>Public Two Year</td>
<td>1,000</td>
<td>12,400,000</td>
</tr>
<tr>
<td>Private Four Year</td>
<td>2,102</td>
<td>5,197,108</td>
</tr>
<tr>
<td>Private Two Year</td>
<td>721</td>
<td>419,961</td>
</tr>
<tr>
<td><strong>K12</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of Education</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Public School Districts</td>
<td>14,000+</td>
<td>49,386,000</td>
</tr>
<tr>
<td>- Public Schools</td>
<td>98,706</td>
<td>-</td>
</tr>
<tr>
<td>Private Schools</td>
<td>33,740</td>
<td>5,964,000</td>
</tr>
</tbody>
</table>

Source: US Census & NCES, 2010
## Market Size by Staff Employment

### Total Education Employees: 11,132,752

<table>
<thead>
<tr>
<th>Role Category</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary and secondary education</td>
<td>7,917,038</td>
</tr>
<tr>
<td>Instructional employees (Teachers, principals, supervisors, librarians, etc.)</td>
<td>5,355,239</td>
</tr>
<tr>
<td>Other employees (Superintendents, administrators &amp; other non-instructional staff)</td>
<td>2,561,799</td>
</tr>
<tr>
<td>Higher education</td>
<td>3,121,471</td>
</tr>
<tr>
<td>Instructional employees (Teachers and academic researchers)</td>
<td>1,113,481</td>
</tr>
<tr>
<td>Other employees (Administrators and other non-instructional staff)</td>
<td>2,007,990</td>
</tr>
<tr>
<td>Other education</td>
<td>94,243</td>
</tr>
</tbody>
</table>

**Source:** US Census & NCES

### K12 Breakdown

- **Teachers:** 50.5%
- **Student/support staff:** 23.6%
- **Instructional aides:** 11.6%
- **Administrative support staff:** 6.9%
- **School administrators:** 2.7%
- **Guidance counselors/directors:** 1.7%
- **Instructional coordinators/supervisors:** 1.2%
- **School district administrators:** 1.0%
- **Librarians:** 0.8%
# If it were a Fortune 500

<table>
<thead>
<tr>
<th>School District / Company</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nike (Rank #135)</td>
<td>$19,014,000,000</td>
</tr>
<tr>
<td>New York City DOE (NY)</td>
<td>$18,599,971,800</td>
</tr>
<tr>
<td>J.C. Penney (Rank #146)</td>
<td>$17,759,000,000</td>
</tr>
<tr>
<td>Los Angeles Unified School District (CA)</td>
<td>$11,700,900,000</td>
</tr>
<tr>
<td>Marriott International (Rank #210)</td>
<td>$11,691,000,000</td>
</tr>
<tr>
<td>Chicago Public Schools (IL)</td>
<td>$6,566,800,000</td>
</tr>
<tr>
<td>Yahoo (Rank #365)</td>
<td>$6,324,700,000</td>
</tr>
<tr>
<td>Miami-Dade County Public Schools (FL)</td>
<td>$4,300,000,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Higher Edu Institution/Company</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGM Resorts International (Rank #380)</td>
<td>$6,019,200,000</td>
</tr>
<tr>
<td>University of Michigan (MI)</td>
<td>$5,849,883,321</td>
</tr>
<tr>
<td>Fidelity National Financial (Rank #398)</td>
<td>$5,740,300,000</td>
</tr>
<tr>
<td>University of Washington (WA)</td>
<td>$5,584,919,000</td>
</tr>
<tr>
<td>MasterCard (Rank #410)</td>
<td>$5,539,000,000</td>
</tr>
<tr>
<td>UC Los Angeles (CA)</td>
<td>$4,873,215,000</td>
</tr>
<tr>
<td>Washington Post (Rank #470)</td>
<td>$4,817,100,000</td>
</tr>
<tr>
<td>Ohio State University (OH)</td>
<td>$4,745,733,000</td>
</tr>
</tbody>
</table>
Education Spend

• According to the 2011 Fall Fiscal Survey, there was $1.7 trillion in state spending for FY2011.
  – This includes all sources of funding, i.e. general fund, federal funds, other state funds, bonds, etc.

• Education made up:
  – 20.1% (or $341.7B) in K12 spend
  – 10.1% (or $171.7B) in HED spend

Source: Center for Digital Education, 2012
Source: 2011 Fall Fiscal Survey of States
<table>
<thead>
<tr>
<th>What’s Effecting the Market?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal Reform</strong></td>
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<tr>
<td><strong>State Reform</strong></td>
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<tr>
<td><strong>Funding</strong></td>
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<tr>
<td><strong>Impact of curriculum on IT</strong></td>
</tr>
<tr>
<td><strong>Trending Technologies</strong></td>
</tr>
<tr>
<td>• Digital Textbook Playbook</td>
</tr>
<tr>
<td>– US DOE and FCC - Feb 2012</td>
</tr>
<tr>
<td>• FY 2013 Proposed Budget</td>
</tr>
<tr>
<td>– 3.8% increase</td>
</tr>
<tr>
<td>– $300M for K12 RTT</td>
</tr>
<tr>
<td>– $1B Hi Edu RTT-version</td>
</tr>
<tr>
<td>– $8B for CC job training program</td>
</tr>
<tr>
<td>• No Child Left Behind</td>
</tr>
<tr>
<td>– Waivers granted to 11 states</td>
</tr>
<tr>
<td>– 26 more states and DC seek flexibility in round two requests</td>
</tr>
<tr>
<td>– Round three expected for Sept. 6</td>
</tr>
</tbody>
</table>
What’s Effecting the Market?

Federal Reform

State Reform

Funding

Impact of curriculum on IT

Trending Technologies

- Oregon
  - Zero-to-20 education system
  - Chief Education Officer
- Connecticut
  - Proposal for student centric model
- Idaho
  - Requires two online credits for HS graduation (AL, FL & MI require one)
- Florida
  - Requires use of digital learning tools by (2015/16)
- California & Utah
  - Launch free online textbook initiatives
What’s Effecting the Market?

Federal Reform
State Reform
Funding
Impact of curriculum on IT
Trending Technologies

- State general funding increased 2.9% in 2012 over 2011
- The Center on Education Policy reports that 20 in 37 states plan to increase their education budgets in 2012. This is up from 14 states in 2011.
- Dwindling stimulus funds
What’s Effecting the Market?

Federal Reform
State Reform
Funding
Impact of curriculum on IT
Trending Technologies

- Common Core (Adopted by 46 states)
- Online assessments
- IT Spend for K12 and HED is an estimated $19.8B, but that may increase with investment from curriculum in digital content resources and eLearning applications

K12 Curriculum Spend $9.5B
K12
HED $10.3B
Higher Ed Curriculum Spend

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What’s Effecting the Market?

Federal Reform
State Reform
Funding
Impact of curriculum on IT

Trending Technologies

- There are several areas of technology that are changing the education landscape. To mention a few:
  - Mobility
  - Digital content & Content Mgmt
  - Learning Mgmt & Student Mgmt Systems
  - Online virtual learning with live teacher access
  - Storage and Cloud
  - Network evolutions
  - Classroom tech build-out to unfinished classrooms
Mobility

Tech Trends & Procurement
Mobility

Quick Facts

• The top two initiatives reported by district technology leaders are mobility (1:1 & BYOD) and wireless/network infrastructure. – 2011/12 CDE Digital School Districts Survey

• Among college students, tablet device ownership tripled from 7% (2011) to 25% (2012), 66% believe tablets improve the learning environment, and 63% believe tablets will replace traditional textbooks within 5 years - The Pearson Foundation

• Over 80% of public and private universities and almost 70% of community colleges have wireless classrooms, which is a key component supporting mobile environment - The Campus Computing Project.

Drivers

• 1:1 objective
• Student demand
• Increased academic achievement & student engagement
• More cost effective solutions available

Potential Barriers

• Limited bandwidth & aging infrastructure
• Support for multiple devices and platforms
• Cost to implement & connectivity costs
• Teacher understanding of proper integration of the tool
• School and state policies prohibiting devices (K12)
## Digital Content

### Quick Facts
- Approx. 27% of middle school and 35% of high school students use digital textbooks - Project Tomorrow
- The eLearning market is approx. $2.9 billion for K12 ($0.46 of every $100 spent) and $24.4 billion for HED ($5.60 of every $100 spent) - “Unleashing the Potential of Education Technology,” The White House, 2011
- Several states have rewritten textbook funding laws to include digital content, e.g. IL, IN, OH, IA, WV & TX. (IN, OH & IA allow purchase of computer hardware.)
- The United States spends over $7 billion on textbooks annually; many textbooks can be 7-10 yrs old - FCC
- 58% of college students prefer a digital format for textbooks, which is a reversal from last year when more students preferred printed textbooks - The Pearson Foundation

### Drivers
- Improved learning capabilities
- Cost effective
- Personalized learning opportunities
- Availability of up-to-date content

### Potential Barriers
- Cost (publisher pricing) vs. obtaining new “born-digital” non-book-format content inexpensively
- Device and content interoperability
- Managing the transition
- Professional Development
Online Virtual Learning

Quick Facts
• The number of students involved in online learning tripled at the high school level and doubled at the middle school level from 2008 to 2011 - Project Tomorrow

• According to Keeping Pace in K12:
  – 40 states have virtual schools or state-led online learning initiatives.
  – 30 states plus Washington DC have at least one full-time online school operating statewide.
  – 536,000 course enrollments in state virtual schools & 250,000 full-time enrollments in online schools.

• Through introductory course redesigns using online learning tools, the National Center for Academic Transformation reports annual average cost savings of:
  • 35% (or $1,688,672) for the Arizona Board of Regents
  • 38% ($591,027) for Missouri Public Universities
  • 35% ($534,655) for the State University of New York

Drivers
• More cost effective solutions available
• Demand from students and parents
• Personalized and flexible learning options
• Increased student engagement
• Shared resources (teachers & courses) across multiple schools

Potential Barriers
• Lack of teacher experience to create curriculum specific online course
• Teacher reluctance or comfort level to teach online courses
• Connectivity
• Funding models for enrollment
K12 Spend Breakdown

- **HARDWARE**
  - 55 to 60 percent ($5.2-$5.7 billion)

- **SOFTWARE**
  - 18 to 22 percent ($1.7-$2.1 billion)

- **NETWORK/TELECOM**
  - 17 to 19 percent ($1.6-$1.8 billion)

- **PROFESSIONAL DEVELOPMENT**
  - 3 to 8 percent ($285-$760 million)

*Source: Center for Digital Education, 2011*
K12 Spend on Computing Devices

Computing Device Increases Year-over-Year

- 24% Increased
- 4% Decreased
- 72% Stayed the Same

<table>
<thead>
<tr>
<th></th>
<th>2011 Install</th>
<th>2012 Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>18.1 million</td>
<td>3.2 million</td>
</tr>
<tr>
<td>Est. Spend</td>
<td>$10.3 billion</td>
<td>$1.88 billion</td>
</tr>
</tbody>
</table>

- 3-Year Forecast: 7.5% annual Growth
- Yearly Refresh: 2 million devices

Source: CDE K12 Education Report, 2011
Source: School Dude Survey, 2011
Procurement Vehicles

- Statewide and Cooperative Contracts are major vehicles leveraged for technology procurement:
  - 74% of K12 use state contracting vehicles
    - Other methods include: city/county contracts, district contracts, US Communities & WSCA
  - 74% of HED use cooperative purchasing contracts
    - 81% use cooperative purchasing for computer/ information technology/communications hardware

Source: CDE Digital School Districts Survey, 2011/12
Source: AASCU, Public College & University Procurement, 2010
WSCA 2011 Spend for Computers

45 members states | $2.47 billion in 2011 Spend

Of 2011 Q1 Spend, approx.:
- 26% accounted for K12
- 29.5% accounted for HED

If estimate applied across the board:
- $642.2 million in K12 spend
- $728.6 million in HED spend

Source: WSCA, Computer Equipment, Peripherals & Services Contract
Wait. Who does the purchasing?

• There is no ‘one size fits all’ when it comes to technology procurement.

• In a recent CDE Converge Readership Survey,
  – 52.8% of K12 and 62.5% of HED curriculum staff reported that curriculum lead technology purchases related to eLearning applications and software.
  – 28.2% of K12 and 40.6% of HED teachers reported that teachers lead technology procurement directives
  – 38.9% of K12 and 52.4% of HED technologists report that technology staff lead technology procurement
### General Trends

#### K12
- Not as enterprise tech oriented as other major markets
- Onslaught of BYOD
- Scrambling to update networks
- Most lack enough or primary qualified IT staff & qualified instructional tech staff
- Already 100+ vendor answers to every learning tech question

#### HIGHER ED
- Not as classroom tech oriented
- Traditional systems and status quo spending being cut
- Lots of room for transitional learning tech spend (digital content), lecture capture, new LMS’s
- Ripe for rip-and-replace on major systems
- Still doing consolidation/virtualization
- Big publishers moving to digital
## Bids & RFP

### Search (click here)

To view the bids that fit your settings click on this button

[My Bids]

## Budget Information

- State Budgets
- Top School Districts
- Top University Systems
- Top Public Universities
- Top Community Colleges
- Top Private Universities

## Market Information

- Education IT Plans
- CIO Interviews
- Events
- Associations
- Collaboration Center
- Grant Information
- More Services

### Bids & RFPs

<table>
<thead>
<tr>
<th>NAME</th>
<th>INSTITUTION</th>
<th>STATE</th>
<th>PUBLISHED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Infrastructure Equipment</td>
<td>Warren Woods Public Schools</td>
<td>MI</td>
<td>Mar 16, 2012</td>
</tr>
<tr>
<td>Tobii Eye Tracking Technology (Sole Brand)</td>
<td>Georgia Southern University</td>
<td>GA</td>
<td>Mar 16, 2012</td>
</tr>
<tr>
<td>On-Call Telecommunications - Related Services</td>
<td>University of Maine System</td>
<td>ME</td>
<td>Mar 16, 2012</td>
</tr>
<tr>
<td>Scanning Services</td>
<td>Anchorage School District</td>
<td>AK</td>
<td>Mar 16, 2012</td>
</tr>
<tr>
<td>Computerized Maintenance Management Software</td>
<td>Harford Community College</td>
<td>MD</td>
<td>Mar 16, 2012</td>
</tr>
<tr>
<td>Construction Management Services - Construct New Business Building &amp; Conklin Hall Rehabilitation</td>
<td>State University Construction Fund</td>
<td>NY</td>
<td>Mar 16, 2012</td>
</tr>
<tr>
<td>OCLC Online Subscriptions</td>
<td>Buffalo State College (SUNY)</td>
<td>NY</td>
<td>Mar 16, 2012</td>
</tr>
<tr>
<td>Web-Based Case Management System</td>
<td>New Hampshire Department of Education</td>
<td>NH</td>
<td>Mar 16, 2012</td>
</tr>
<tr>
<td>Multifunction Copiers</td>
<td>Fayette County Public Schools</td>
<td>KY</td>
<td>Mar 16, 2012</td>
</tr>
</tbody>
</table>
Thank you

AVAILABLE TODAY:
K12 Education Overview Report