RESULTS OF THE SPRING 2010 SIIA VISION K-20 SURVEY

Technology > Education > America's Future

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Software & Information Industry Association
Education Division

TABLE OF CONTENTS

Introduction 3
SIIA Vision K-20 Initiative and Surveys 3
Key Findings 4
Analysis and Implications 5
Scoring and Methodology 7
Summary of Respondents 8
Education Level 8
Institutional Size 9
Location 10
States 11
Scores for Individual Questions 12
Scores for the Five Measures of Progress 15
Scores on the Seven Vision Goals 17
Results by Demographic Categories 19
Education Level 19
Institutional Size 25
Location 27
Appendix 30
Vision K-20 Partners and Supporters 30
SIIA Members Active in the Education Division 31
The Vision K-20 Survey – as Hosted on the Vision K-20 Website 33
About SIIA and the Education Division 40
About the Vision K-20 Contributors 40

INTRODUCTION

SIIA VISION K-20 INITIATIVE AND SURVEYS

Software & Information Industry Association (SIIA) member institutions are the providers of technology tools and content that are essential for education in the 21st Century. The SIIA Vision K-20 Initiative[1] promotes the best uses of technology to ensure that all U.S. students have access to a teaching and learning environment capable of preparing them to compete globally and lead the world in innovation.

The K-20 Vision is centered on the belief that every K-20 institution should have an instructional and institutional framework that embraces technology and e-learning to:

- Increase student engagement and achievement
- Provide equity and access to new learning opportunities
- Document and track student performance
- Empower collaborative learning communities
- Maximize teaching and administrative effectiveness
- Build student proficiencies in 21st Century skills

The Vision K-20 Survey is an annual online self-assessment, hosted on SIIA's Vision K-20 website, for K-12 classrooms, schools, and districts and college courses, departments and campuses. The self-assessment consists of 20 benchmark statements indicating progress toward the SIIA Vision, which is articulated in two ways.

- There are FIVE MEASURES OF PROGRESS THAT REPRESENT PROGRESS TOWARD EDUCATIONAL OUTCOMES:
  1. 21st Century tools
  2. Anytime/anywhere access
  3. Differentiated learning
  4. Assessment tools
  5. Enterprise support

- In addition, there are SEVEN VISION GOALS that institutions can use technology to achieve, specifically:
  1. Meet the needs of all students
  2. Support accountability and inform instruction
  3. Deepen learning and motivate students
  4. Facilitate communication, connectivity and collaboration
  5. Manage the education enterprise effectively and economically
  6. Enable students to learn from any place at any time
  7. Nurture creativity and self-expression

Survey participants respond to 20 statements, selecting the scenario that most closely matches the situation in their institutions. After submitting the survey, respondents receive

[1] Further information about the Vision K-20 Initiative can be found at http://www.siia.net/visionk20/index.html.

a progress report showing how close their institutions are to achieving the Vision K-20 Measures and Goals.

This report analyzes the results of nearly 650 surveys completed by educators representing all levels of K-20 education during the spring of 2010. Because this is the third year of an annual survey, three-year trend data are also reported.

A note about the scoring used in this report

Each question on the survey has four possible selections, with each indicating the level of use of a particular type of technology at the respondent's institution or district. The lowest level of use received a score of 25%, while the highest level of use received a score of 100%. At the aggregate level, the score indicates how close institutions are toward achieving a particular benchmark, with a score of 100% meaning that the goal has been attained.

KEY FINDINGS

- The 2010 survey was completed by 647 educators, a 25% increase compared with 2009. Approximately three-fourths of the respondents represented K-12 schools and districts, and one-fourth were from postsecondary institutions. Respondents also come from institutions that range from small to very large and also from diverse metropolitan settings – from rural to urban.
- The average score of the 20 questions in the 2010 survey was slightly higher (62.2%) than the average scores from the 2009 and 2008 surveys (61.8% and 60.9% respectively). The higher the score, the closer the institution is to achieving the elements of the K-20 Vision.
- The two benchmarks with the highest level of achievement were:
    - security tools to protect student data and privacy (84%)
    - the availability of high-speed broadband access for robust communication, administrative, and instructional needs (84%)
- On the Five Measures of Progress, average scores ranged from a high of 68% for both 21st Century Tools and Enterprise Support to a low of 48% for Assessment Tools. All measures except for Enterprise Support recorded modest gains in 2010.
- Average scores for the Seven Vision Goals ranged from 70% for facilitating communication, connectivity, and collaboration to 60% for nurturing creativity and self-expression, and helping schools meet the needs of all students. There was relatively little change in the scores for these goals in the past two years, although the general trend is slightly higher when compared to 2008.
- In general, scores on individual benchmarks, for the Five Measures of Progress, and for the Seven Vision Goals are higher for postsecondary institutions and lower for elementary schools. Likewise, larger institutions tend to have higher scores on all measures than smaller institutions. There are no systematic differences by type of setting (location).

ANALYSIS AND IMPLICATIONS

The 2010 Vision K-20 Survey shows that U.S. education institutions are making very limited progress year-to-year in leveraging technology and e-learning to meet their educational goals. However, when compared to previous year results, the survey shows consistent results as to where technology was most and least leveraged.

- The 62% average score for the 20 benchmark questions represents a small increase over the average scores reported in 2009 (61.8%) and 2008 (60.9%). The gradual improvement in average scores might be explained in two ways:
  - Given the current downturn in the economy and decrease in budgets, education institutions have limited further investment or remained focused on maintaining their current infrastructure and staff.
  - SIIA partnered with a larger and more diverse group of partners in 2010, allowing the survey to reach a broader set of respondents, beyond the education technology leaders that were reached in previous years.
- The achievements continue to be greatest in the adoption of security tools and high-speed broadband access.
  - This allows district leaders to ensure the safety of all users and provides opportunities for instructional leaders to implement multimedia-rich interactions in the classroom.
  - It continues to give publishers the incentive to develop technology-rich curriculum materials that can be delivered via the Internet.
- There are reported gains in the development and use of e-Portfolios.
  - This allows educators to use that data for creating and implementing differentiated instruction and supporting personalized learning for students.
  - Publishers can incorporate a broader set of assessment tools throughout their curriculum and supplemental products.
- As in all previous surveys (2008 and 2009), postsecondary institutions lead the K-12 sector in overall average measures of progress.
  - The differences are consistent within all demographic categories and within all goals and benchmarks.
  - The significant differences highlight the differences in the student age levels. The use of online courses or digitally-delivered content, for example, would be predictably higher for older students.
- The only area where secondary schools achieved a higher average score than postsecondary is having information systems that provide digital student and achievement data.
  - This likely reflects the emphasis that NCLB requirements placed on K-12 educators and administrators for using achievement data to support instructional decisions.

With minimal improvements occurring year to year, just what will it take to accelerate the pace for leveraging technology and transforming K-20 education institutions? The 2011

Survey will likely show the final effects of the recession and the expenditures from education stimulus funds on the implementation of education technology budgets and achievement of the Vision K-20 goals.

As we highlighted last year, significant improvement is needed in most of the surveyed measures to achieve the Vision K-20 goals and increase the opportunities for all students to fulfill their promise through technology-supported education. With the support of SIIA members and partners, SIIA will continue surveying faculty and administrators to track this rate of change. We will also continue to call on education market leaders and policy makers to increase investment, leadership and support to ensure the nation's educational system can innovate and compete on a global scale.

SCORING AND METHODOLOGY

The survey includes statements (also referred to as questions or benchmarks) about 20 topics related to technology availability and use in classrooms, schools, districts, colleges, and universities.[2] Participants were asked to select one of four possible responses provided for each of the 20 topics that best described the situation in their education settings. The responses ranged from a statement describing extremely limited availability, use, or proficiency to a statement describing extensive adoption and familiarity on the part of their classroom, institution, or district.

Responses were scored according to the level of use indicated by the participants: the lowest level of use earned a score of "1"; alternatively, a score of "4" was attributed to extensive use and application. These raw scores were then converted to percentages. For example, the first question on the survey includes the following statement and four possible responses.

Educational content is delivered flexibly in digital formats, media and platforms

- ☐ Delivered primarily through print materials (if selected, then scored as "1" and converted to 25%)
- ☐ Delivered through print materials and some technology (if selected, then scored as "2" and converted to 50%)
- ☐ Delivered through an equal blend of print materials and technology (if selected, scored as "3" and converted to 75%)
- ☐ Delivered primarily though technology with some print-only materials (selected/scored as "4" and converted to 100%)

Theoretically, if all respondents indicated the most extensive use, the score would be 100%. At the other end of the scale, the lowest possible score would be 25%. Another way of interpreting the score is that institutions are a certain percentage of the way toward achieving a particular benchmark.

The survey is available on SIIA's website in a special section devoted to the Vision K-20 Initiative. While it is possible to complete it almost anytime during the year, the results included in this report were collected between January and June 2010. The majority of results were gathered during May and early June, and the spring 2010 survey was officially closed on June 17, 2010.

[2] A copy of the complete survey instrument is provided in the Appendix.

Educators are informed about the survey in a variety of ways. Vision K-20 Partners[3] link to the Vision K-20 website and invite their clients, customers, or members to participate in the survey. Other SIIA member organizations, as well as SIIA staff, also publicize the survey and Vision K-20 Initiative through emails and other communications.

While the survey is not designed as a formal sample of the entire K-20 marketplace, there are several indications that the results reflect the current state of technology in the education sector. One is the general consistency of results over the three years that the survey has been conducted. Another is the fact that findings are in line with results from other surveys conducted by other organizations on similar topics and the overall characteristics of the respondents reflect the variety of educational institutions in the U.S.

This report begins with a summary of the demographic characteristics of the 2010 survey respondents. In the sections that follow, data from the 20 questions are analyzed in three ways: at the question level, grouped in the Five Measures of Progress, and combined to reflect progress toward the Seven Vision Goals. Where appropriate, information is provided about progress toward these measures and goals by education level, institutional size, and location. Throughout the report, comparative data from the 2009 and 2008 surveys are also included.

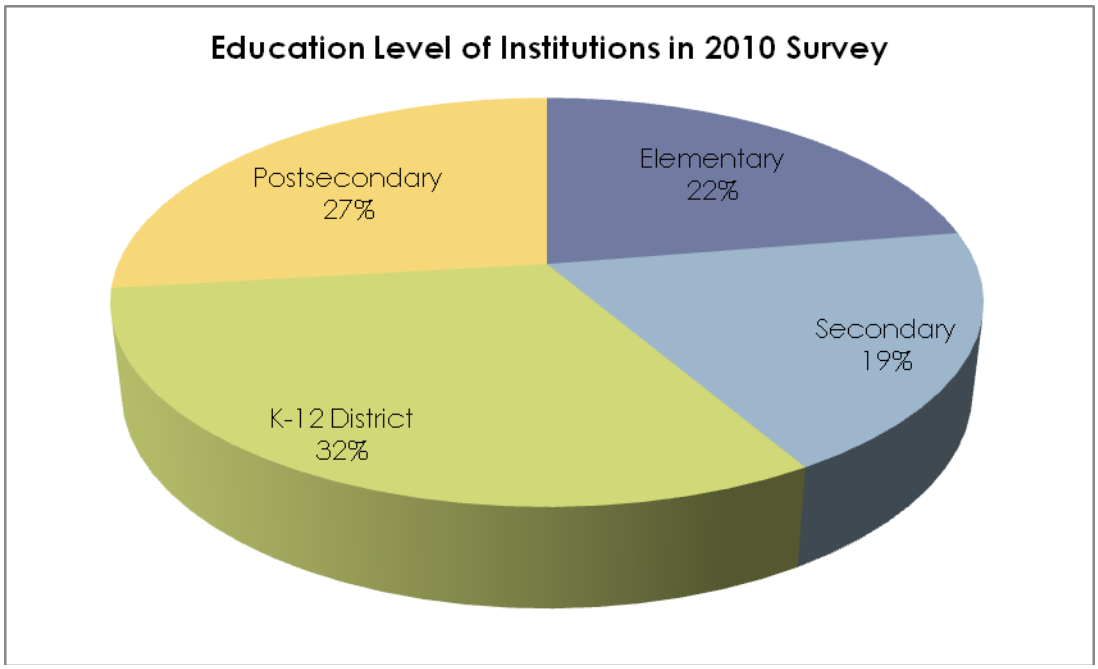
SUMMARY OF RESPONDENTS

A total of 647 educators completed the spring 2010 survey, an increase of 25% compared with the number of surveys submitted in 2009. All levels of K-20 education are included, as are institutions of all sizes and from all regions of the country. Most respondents were completing the survey on behalf of their schools and departments (55%) or districts and campuses (27%). The remainder of those who completed the survey (17%) were responding for their individual classes and courses.

EDUCATION LEVEL

Approximately three-fourths of respondents represented schools or districts within the K-12 sector, with the remaining one-fourth coming from colleges or universities.

[3] See the Appendix for a listing of current Vision K-20 Partners.



Over the three years this survey has been conducted, the proportion of respondents from postsecondary institutions has ranged from a low of 10% in 2009 to this year's high of 27%. This increase is likely a result of reaching more postsecondary faculty and administrators.

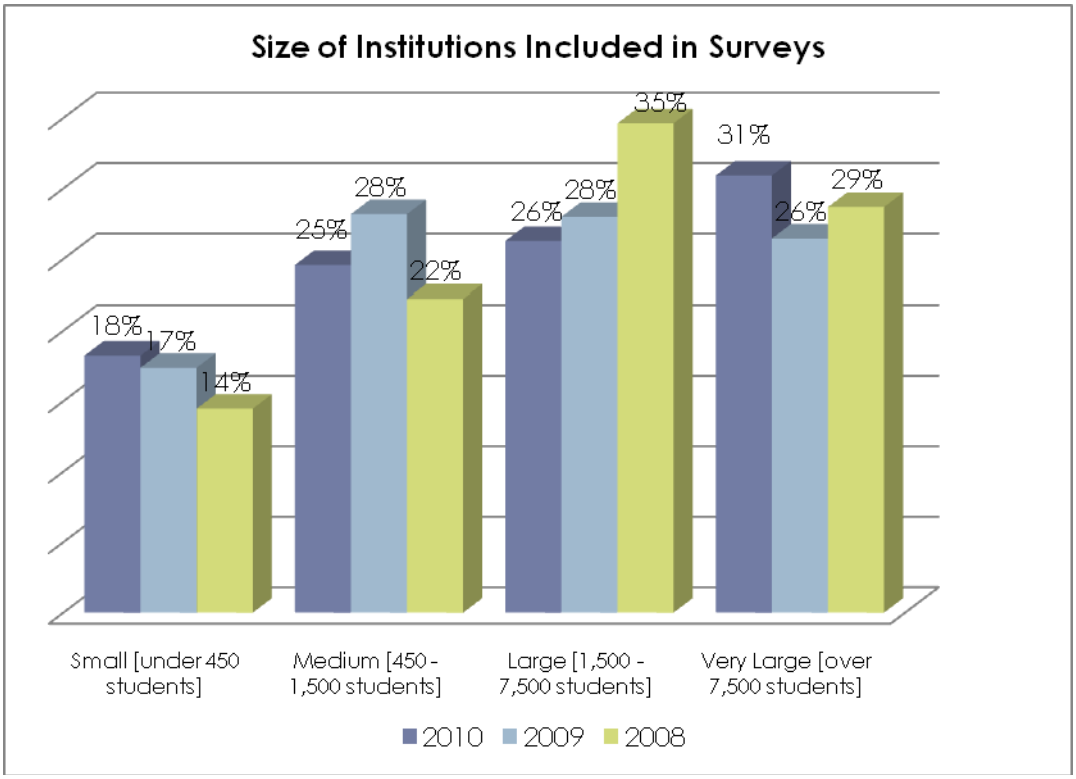
District-level administrators represented nearly one half of the 2009 respondents, but only about one-third of respondents in 2010. The proportion of respondents from individual elementary and secondary schools has shown less variation across the years.

Education Level of Institutions Represented in Surveys

	2008	2009	2010
Elementary	22%	25%	22%
Secondary	15%	18%	19%
K-12 District	39%	47%	32%
Postsecondary	24%	10%	27%

INSTITUTIONAL SIZE

The 2010 survey includes educators from institutions of varying size, with 18% working at small institutions (with enrollments less than 450) and, at the other end of the spectrum, 31% working at very large institutions (with more than 7,500 students). The general breakdown by institutional size has been relatively consistent over the past three years.



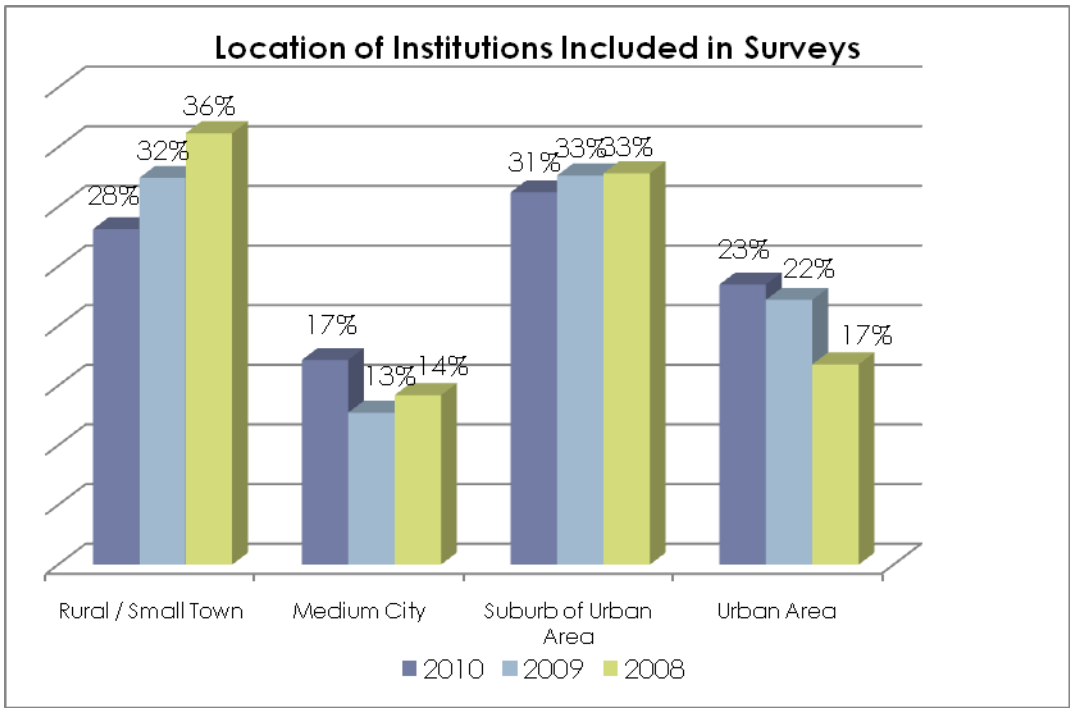
When viewed by education level, institutions represented in the survey are not evenly distributed across the size categories. More than one-half (53%) of the small institutions are elementary schools. Medium size institutions tend to be secondary schools (39%) or postsecondary institutions (28%). Large institutions are most likely to be either secondary schools (32%) or K-12 districts (33%). Districts also comprise the largest share (45%) of the very large category.

Size of Institutions in 2010 Survey by Education Level

	Elementary	Secondary	K-12 District	Postsecondary	Total
Small [under 450 students]	53%	30%	4%	14%	100%
Medium [450 - 1,500 students]	18%	39%	15%	28%	100%
Large [1,500 - 7,500 students]	15%	32%	33%	20%	100%
Very Large [over 7,500 students]	15%	26%	45%	15%	100%

LOCATION

Institutions in the 2010 survey come from a variety of settings, with 28% in rural areas or small towns, 17% in medium-sized cities, 31% from the suburbs, and 23% in urban areas. While the proportion from medium-sized cities and the suburbs have been approximately the same over the three surveys, the representation from rural areas has decreased somewhat and the representation from urban areas is somewhat higher in 2010 compared with 2008.



In general, institutions within each setting are spread across education levels. Exceptions are the postsecondary institutions are somewhat less likely to be located in suburban settings and somewhat more likely to be located in urban areas.

Location of Institutions in 2010 Survey by Education Level

	Elementary	Secondary	K-12 District	Postsecondary	Total
Rural / Small Town	19%	20%	32%	29%	100%
Medium City	22%	18%	28%	32%	100%
Suburb of Urban Area	29%	20%	36%	15%	100%
Urban Area	18%	18%	28%	36%	100%

STATES

The 2010 survey is extremely diverse from a geographical perspective, with participants representing institutions located in 49 states. California tops the list of states with the

highest number of participants, followed by New York and Texas. More than one-half of the institutions included in the 2010 survey are located in the eleven states listed below.

It should be noted that the top three states on this list -- California, Texas, and New York -- are the three states with the highest education enrollments for both secondary and postsecondary institutions. In fact, all of the other states listed are among the top states with the highest student populations.[4]

Location of Institutions Represented in 2010 Survey
States with the Highest Number of Participants

State	Percent of Respondents
California	9%
New York	6%
Texas	6%
Arizona	6%
Illinois	6%
Florida	5%
Pennsylvania	4%
Michigan	4%
Ohio	4%
Virginia	3%
Massachusetts	3%

SCORES FOR INDIVIDUAL QUESTIONS

The overall average for all 20 questions in 2010 is 62.20%, 0.39 percentage points higher than the 61.81% reported in 2009 and 1.34 percentage points higher than the average of 60.86% reported in 2008.

In the table below, questions are ordered by 2010 average scores, beginning with the highest scores. Although there have been some minor shifts, the general order of average scores has remained similar across years.

Average Question Scores on the Vision K-20 Survey

Question Number	Question	2008	2009	2010
20	Security tools are used to protect student data and privacy	85%	87%	84%
4	High-speed broadband access is available for robust communication, administrative and instructional needs	86%	87%	84%
5	High-speed broadband access enables instructional uses that include collaborative learning, video-based communication and other multimedia-rich interactions	76%	80%	79%

[4] NCES, *Digest of Education Statistics, 2009* and *2008 IPEDS*

6	An institution website/portal provides the education community with access to applications, resources and collaboration tools	73%	76%	76%
17	Educators have access to the level of technology resources, training and support common to other professionals	72%	72%	70%
3	Information systems provide digital student and achievement data that support instructional decisions by educators and administrators	66%	66%	66%
7	Ubiquitous, reliable access to resources and services is available through a multitude of mobile devices and access points	63%	64%	66%
19	Institution leaders use technology tools for planning, budgeting and decision making	61%	63%	63%
1	Educational content is delivered flexibly in digital formats, media and platforms	60%	62%	63%
10	Students have access to courseware and technology-based curriculum	61%	60%	62%
16	Information systems track performance and institutional data for educational accountability and decision making	62%	63%	61%
18	Robust enterprise applications and systems are in place to support institutional management and business activities	62%	62%	60%
2	Interactive, adaptive, multimedia courseware and simulations are used in teaching and learning	53%	55%	58%
11	Electronic supplemental instructional resources and online tutoring are accessible to all students	55%	56%	57%
9	Access to online professional development resources, courses and peer collaborative communities is provided	51%	52%	53%
14	Computer-based or online assessments are used to inform instruction	50%	51%	52%
12	Courseware and learning management systems differentiate instruction	48%	50%	52%
15	Technology-based assessments measure a full range of 21st Century skills and knowledge	49%	50%	51%
8	Online courses ensure all students have access to high-quality instruction, no matter their location or schedule	44%	44%	46%
13	Personal ePortfolios travel with students to demonstrate a wide range of skills and knowledge	38%	37%	40%
	Grand Total	**60.86%**	**61.81%**	**62.20%**

For the past three years, the questions with the highest scores relate to student privacy and broadband access, although the 2010 survey reveals some erosion in the percentage of respondents who report the highest degree of attainment in these areas. In an attempt to determine if these somewhat lower scores are an artifact of the characteristics of survey respondents, average scores on questions number 4 and 20 were calculated by type of respondent, education level of institution, location, and size. Although differences were not large, postsecondary institutions have slightly higher scores on these two questions than institutions in the K-12 sector.

A more significant difference was observed, however, within the K-12 group, where respondents from the district level had higher scores than elementary or secondary school respondents, possibly because district-level personnel might be more familiar with these particular topics than their colleagues at the building level. Since this year's survey includes a higher percentage of respondents from postsecondary institutions and a lower percentage from K-12 districts, part of the erosion in the average scores for these topics might be attributable to the characteristics of the survey participants.

Despite these slightly lower scores at the top of the table of average scores, more than one-half of the questions yielded either the same or higher scores in 2010 compared with

prior years. Particularly large gains (of two percentage points and higher) were observed for the statements dealing with personal ePortfolios; interactive, adaptive, multimedia courseware and simulations; technology-based curricula; online courses; and ubiquitous access to mobile devices and access points. In general, benchmarks that had lower scores in prior years showed the greatest gains in 2010.

Survey Questions with the Highest Increases in Average Scores

Question Number	Question	Average Score Change 2010 :: 2009
13	Personal ePortfolios travel with students to demonstrate a wide range of skills and knowledge	+ 3.3%
2	Interactive, adaptive, multimedia courseware and simulations are used in teaching and learning	+ 3.1%
10	Students have access to courseware and technology-based curriculum	+ 2.7%
8	Online courses ensure all students have access to high-quality instruction, no matter their location or schedule	+ 2.3%
7	Ubiquitous, reliable access to resources and services is available through a multitude of mobile devices and access points	+ 2.0%

SCORES FOR THE FIVE MEASURES OF PROGRESS

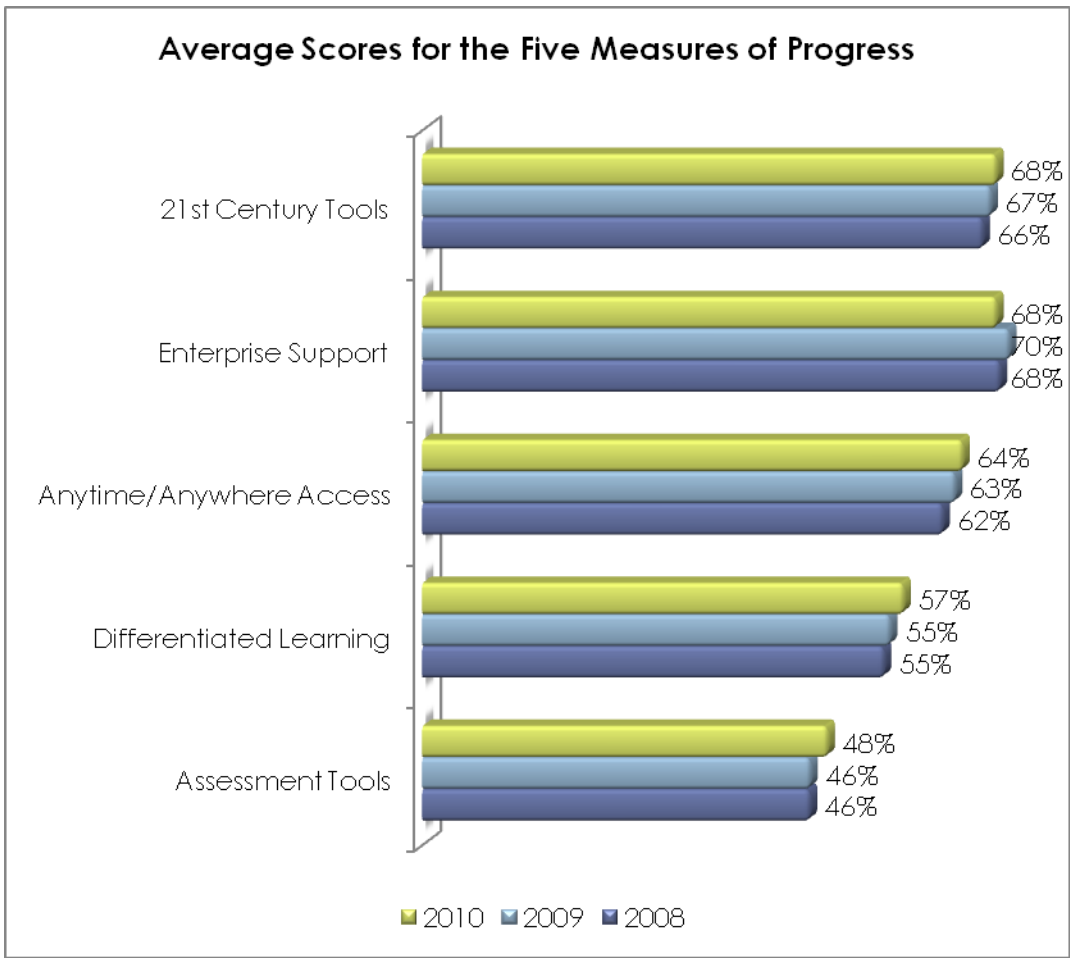
The 20 questions on the survey are grouped into categories referred to as the Five Measures of Progress. The table below shows which questions are included in each of these five measures and provides the average scores for each question. Within each measure, there is considerable variation in the level of implementation within each component. For example, under the "Anytime/Anywhere Access" measure, the average score for the statement about the availability of online courses (question number 8) is only 46%, while the average score for high-speed broadband access (question number 5) is 79%.

Five Measures of Progress: Average Question Scores

Question Number	Question	2010 Score
21st Century Tools		
1	Educational content is delivered flexibly in digital formats, media and platforms	63%
2	Interactive, adaptive, multimedia courseware and simulations are used in teaching and learning	58%
3	Information systems provide digital student and achievement data that support instructional decisions by educators and administrators	66%
4	High-speed broadband access is available for robust communication, administrative and instructional needs	84%
Anytime/Anywhere Access		
5	High-speed broadband access enables instructional uses that include collaborative learning, video-based communication and other multimedia-rich interactions	79%
6	An institution website/portal provides the education community with access to applications, resources and collaboration tools	76%
7	Ubiquitous, reliable access to resources and services is available through a multitude of mobile devices and access points	66%
8	Online courses ensure all students have access to high-quality instruction, no matter their location or schedule	46%
9	Access to online professional development resources, courses and peer collaborative communities is provided	53%
Differentiated Learning		
10	Students have access to courseware and technology-based curriculum	62%
11	Electronic supplemental instructional resources and online tutoring are accessible to all students	57%
12	Courseware and learning management systems differentiate instruction	52%
Assessment Tools		
13	Personal ePortfolios travel with students to demonstrate a wide range of skills and knowledge	40%
14	Computer-based or online assessments are used to inform instruction	52%
15	Technology-based assessments measure a full range of 21st Century skills and knowledge	51%
Enterprise Support		
16	Information systems track performance and institutional data for educational accountability and decision making	61%
17	Educators have access to the level of technology resources, training and support common to other professionals	70%
18	Robust enterprise applications and systems are in place to support institutional management and business activities	60%
19	Institution leaders use technology tools for planning, budgeting and decision making	63%

20	Security tools are used to protect student data and privacy	84%

Survey respondents indicated their greatest progress toward meeting the goals related to 21st Century Tools and Enterprise Support – both of which had an average score of 68% in 2010. The least amount of progress is seen in Assessment Tools and Differentiated Learning, with average scores of 48% and 57% respectively.



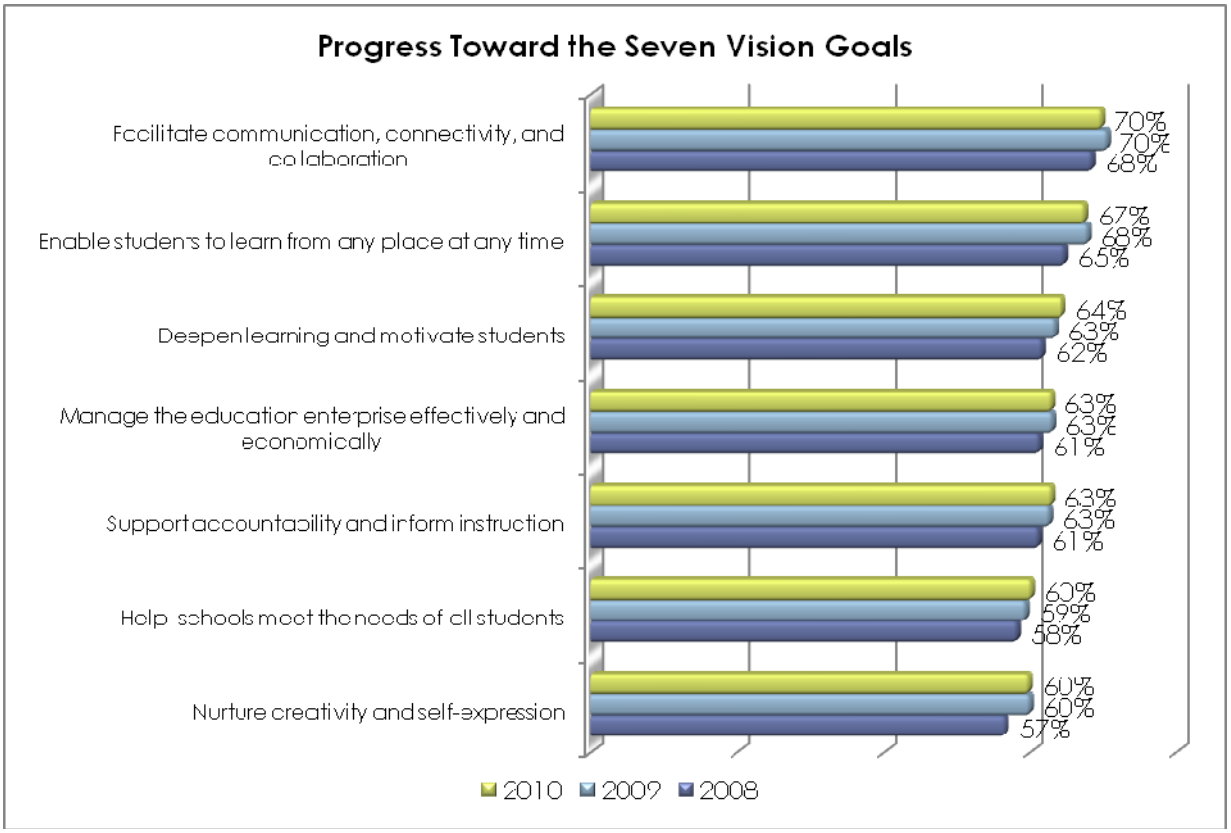
Four of the five measures experienced improvement over each of the past two years. The largest increases in average scores were a 2.5 percentage point gain for Anytime/Anywhere Access and a 2.4 point improvement in Differentiated Learning. Assessment Tools and 21st Century Tools showed increases of 1.72 and 1.32 points respectively. The only measure to experience a decline is Enterprise Support, which decreased by 0.73 points. An examination of the individual questions that comprise this measure reveals decreases in all areas, with the largest decrease seen in question number 17 (comparing technological resources, training, and support available to educators with other industries).

SCORES ON THE SEVEN VISION GOALS

The means for change embodied in the Vision K-20 are set forth as seven goals to prepare students for life in the 21st Century. These goals envision that:

- Schools meet the needs of all students
- Schools are accountable and information is available to improve teaching and learning
- Students are motivated and involved in their education
- Communication, connectivity and collaboration are integral to the learning process
- The education enterprise is managed effectively and economically
- Students can learn from any place at any time
- Creativity and self-expression are nurtured

In order to gauge progress towards the Vision K-20, the 20 questions on the survey have been assigned to one or more of each of these goals. For example, benchmark question number 9 about access to online professional development resources is a component in calculating progress toward three different goals: helping schools meet the needs of all students; facilitating communication, connectivity, and collaboration; and managing the education enterprise effectively and economically.



As has been the case since the Pilot Vision K-20 survey in 2008, the goal of facilitating communication, connectivity, and collaboration has received the highest score (70%). Close behind, with a score of 67%, is the goal of enabling students to learn from any place at any time. The two goals with the lowest scores at 60% are nurturing creativity and self-expression and helping schools meet the needs of all students. It should be noted that the overall magnitude of progress toward each of the Seven Vision Goals has been very similar over the past three years, with only a shift in order at the low end of the scale. (In 2009, the lowest score was for helping schools meet the needs of all students.)

A comparison of the 2010 and 2009 scores shows mixed results for improvement on each of the seven goals. Two goals (deepening learning and motivating students; and helping schools meet the needs of all students) each showed improvement of approximately one percentage point. Specific contributors to this improvement include increased use of interactive courseware and simulations; expanded use of mobile devices, availability of online courses; and student access to courseware and technology-based curricula.

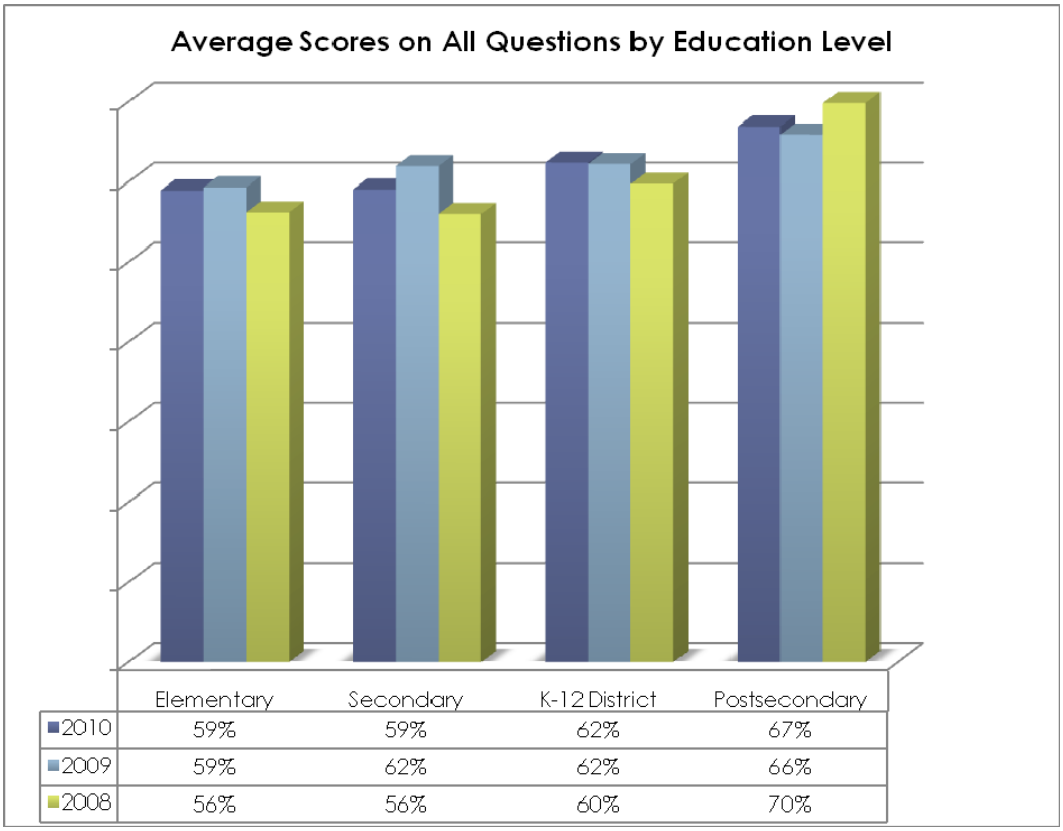
Only one goal (facilitating communication, connectivity, and collaboration) lost a percentage point. The primary factors were lower average scores for questions dealing with broadband access; information systems to track student performance; technology resources, training and support for educators; and security tools to protect student data and privacy. Average scores for the remaining four goals were relatively stable (within 0.5 of a percentage point for both 2010 and 2009).

RESULTS BY DEMOGRAPHIC CATEGORIES

EDUCATION LEVEL

Not surprisingly, the Vision K-20 survey illustrates there are differences among institutions serving students at various education levels. One reason is undoubtedly related to differences in practices and requirements associated with students' educational abilities and needs at various ages and grade levels. What might be a highly appropriate approach to teaching and learning for college students might be a pedagogical (or at least a social) problem when applied to most elementary students. Other differences might be related to the training, comfort zones, and expertise of teachers, faculty, and administrators at different education levels and the actual products and services available and marketed to the different education segments.

As the chart below illustrates, institutions working with the earliest grade levels have somewhat lower average scores during each of the past three years than institutions serving college students. However, when looked at across years, K-12 schools and districts have shown improvement (2-3 percentage points), while postsecondary institutions have seen a decline in average scores from 2008.



	Elementary	Secondary	K-12 District	Postsecondary
2010	59%	59%	62%	67%
2009	59%	62%	62%	66%
2008	56%	56%	60%	70%

The table below provides average scores for each of the 20 questions on the survey. The topic where the difference between education levels is most marked is the availability of online courses (question #5), where average scores go from 34% to 60%. Other questions with relatively large differences (particularly comparing elementary with postsecondary) are questions numbered 1, 6, 7, 11, and 13. In only one area does the K-12 sector score higher than the collegiate group, and that is having information systems providing digital student and achievement data to support instructional decisions (question #3.)

Average Question-level Scores for All 20 Questions by Education Level - 2010

Question Number	Question	Elementary	Secondary	K-12 District	Post-secondary
1	Educational content is delivered flexibly in digital formats, media and platforms	58%	58%	62%	72%
2	Interactive, adaptive, multimedia courseware and simulations are used in teaching and learning	57%	54%	58%	60%
3	Information systems provide digital student and achievement data that support instructional decisions by educators and administrators	66%	65%	68%	64%
4	High-speed broadband access is available for robust communication, administrative and instructional needs	83%	80%	86%	86%
5	High-speed broadband access enables instructional uses that include collaborative learning, video-based communication and other multimedia-rich interactions	74%	76%	79%	84%
6	An institution website/portal provides the education community with access to applications, resources and collaboration tools	71%	72%	77%	84%
7	Ubiquitous, reliable access to resources and services is available through a multitude of mobile devices and access points	60%	61%	66%	73%
8	Online courses ensure all students have access to high-quality instruction, no matter their location or schedule	34%	42%	47%	60%
9	Access to online professional development resources, courses and peer collaborative communities is provided	51%	51%	54%	56%
10	Students have access to courseware and technology-based curriculum	61%	58%	60%	69%
11	Electronic supplemental instructional resources and online tutoring are accessible to all students	52%	55%	57%	63%
12	Courseware and learning management systems differentiate instruction	48%	48%	50%	59%
13	Personal ePortfolios travel with students to demonstrate a wide range of skills and knowledge	36%	38%	38%	47%
14	Computer-based or online assessments are used to inform instruction	50%	49%	52%	56%
15	Technology-based assessments measure a full range of 21st Century skills and knowledge	49%	45%	51%	56%
16	Information systems track performance and institutional data for educational accountability and decision making	59%	58%	62%	63%
17	Educators have access to the level of technology resources, training and support common to other professionals	68%	66%	70%	73%
18	Robust enterprise applications and systems are in place to support institutional management and business activities	56%	58%	61%	63%
19	Institution leaders use technology tools for planning, budgeting and decision making	62%	62%	63%	65%
20	Security tools are used to protect student data and privacy	84%	82%	86%	85%

Another way to examine the differences across education levels is to combine the three K-12 categories (elementary, secondary, and K-12 district) and compare these combined K-12 data with the scores of the postsecondary group. Questions on the table below are ordered by the magnitude of the difference between the average postsecondary and the average combined K-12 scores.

Average Score Differences between Combined K-12 and Postsecondary Institutions - 2010

Question Number	Question	K – 12 (Combined)	Post-secondary	Difference (Postsecondary minus K-12 Combined)
8	Online courses ensure all students have access to high-quality instruction, no matter their location or schedule	41%	60%	19%
1	Educational content is delivered flexibly in digital formats, media and platforms	60%	72%	12%
7	Ubiquitous, reliable access to resources and services is available through a multitude of mobile devices and access points	63%	73%	11%
6	An institution website/portal provides the education community with access to applications, resources and collaboration tools	74%	84%	10%
13	Personal ePortfolios travel with students to demonstrate a wide range of skills and knowledge	37%	47%	10%
12	Courseware and learning management systems differentiate instruction	49%	59%	10%
10	Students have access to courseware and technology-based curriculum	60%	69%	9%
11	Electronic supplemental instructional resources and online tutoring are accessible to all students	55%	63%	9%
15	Technology-based assessments measure a full range of 21st Century skills and knowledge	49%	56%	7%
5	High-speed broadband access enables instructional uses that include collaborative learning, video-based communication and other multimedia-rich interactions	77%	84%	7%
14	Computer-based or online assessments are used to inform instruction	51%	56%	5%
17	Educators have access to the level of technology resources, training and support common to other professionals	68%	73%	5%
18	Robust enterprise applications and systems are in place to support institutional management and business activities	59%	63%	4%
2	Interactive, adaptive, multimedia courseware and simulations are used in teaching and learning	57%	60%	4%
9	Access to online professional development resources, courses and peer collaborative communities is provided	52%	56%	4%
16	Information systems track performance and institutional data for educational accountability and decision making	60%	63%	3%
4	High-speed broadband access is available for robust communication, administrative and instructional needs	84%	86%	2%
19	Institution leaders use technology tools for planning, budgeting and decision making	63%	65%	2%
20	Security tools are used to protect student data and privacy	84%	85%	0%
3	Information systems provide digital student and achievement data that support instructional decisions by educators and administrators	67%	64%	-2%
	Average for all questions	**60.5%**	**66.9%**	**6.5%**

Viewed this way, it is clear that postsecondary institutions have considerably higher scores on almost all of the benchmark questions (18 out of the total of 20) – and in many areas, the differences are considerable. Six of the twenty questions have score differences greater than 10 points. The availability of online courses shows the largest difference (19 points), which is not surprising since younger students (particularly those in elementary and middle schools) are less likely to have the discipline and inclination to pursue full courses in a relatively independent fashion nor are these younger students likely to be interested in coursework not available in their schools.

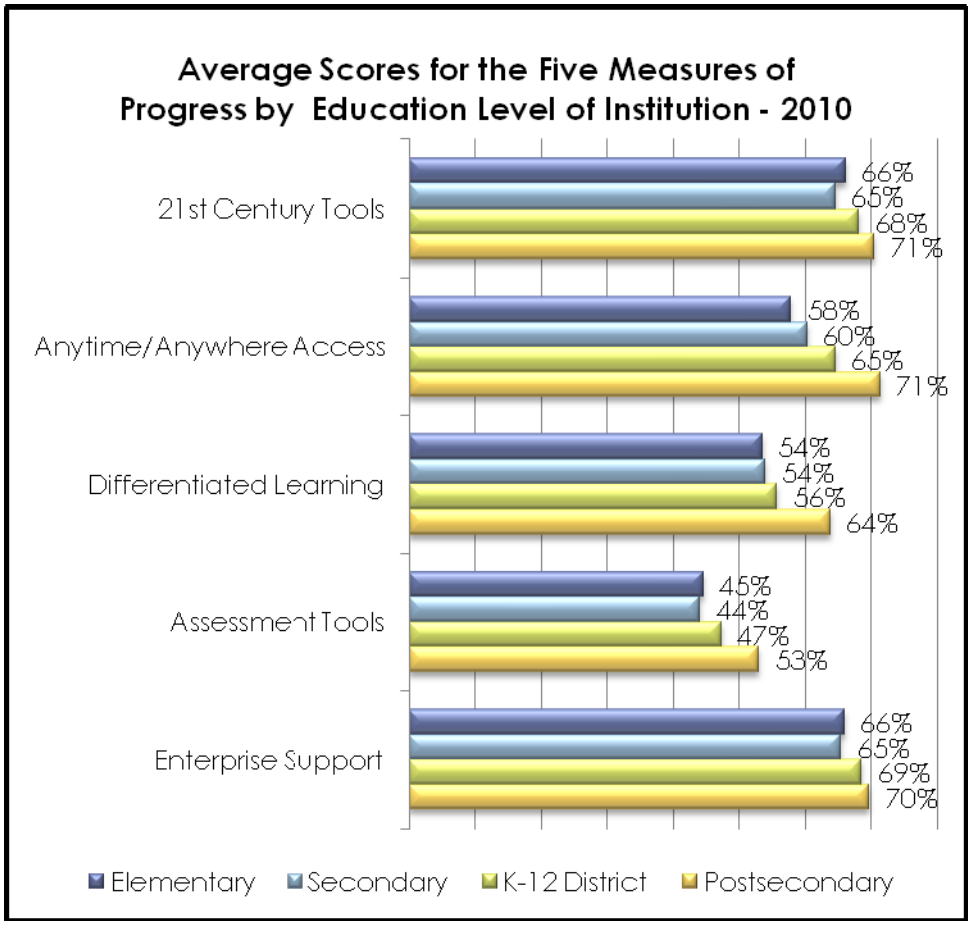
Another general area where postsecondary institutions exhibit much more progress relate to the delivery of content in digital formats, media and platforms and ubiquitous access to resources through a multitude of mobile devices and access points (with 12 and 11 percentage point differences respectively). Questions addressing robust institutional websites, personal ePortfolios, and courseware and learning management systems to differentiate instruction all show 10 point differences.

There is no difference between the two education level sectors in the availability of security tools to protect student data and privacy.

The only area where secondary schools have a higher average score is having information systems that provide digital student and achievement data that support instructional decisions by educators and administrators.

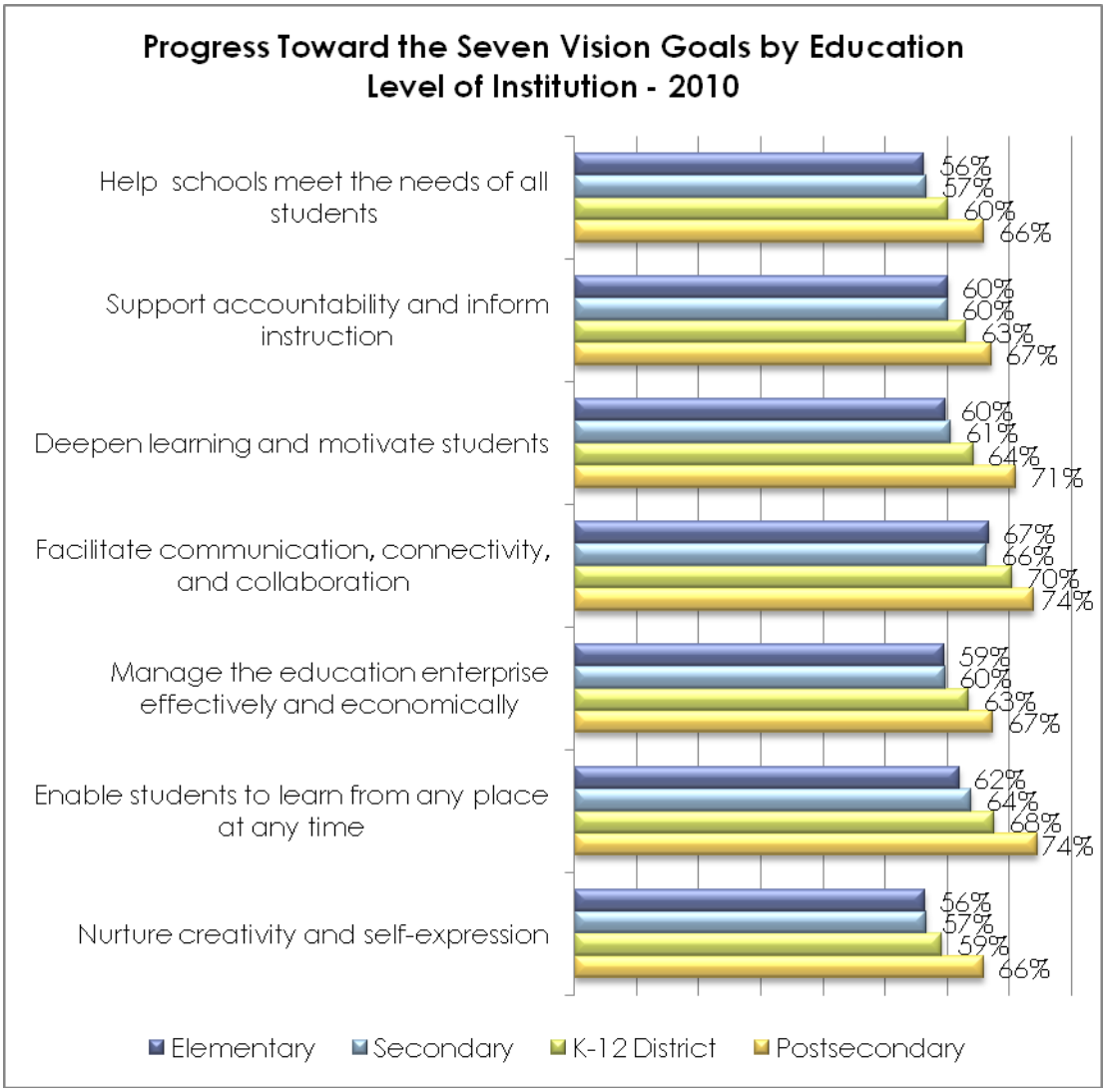
All of these question-level differences between secondary and postsecondary institutions are reflected in the discussion that follows on the Five Measures or Progress and on the Seven Vision Goals.

While the Five Measures of Progress show differences across levels, the scores are relatively close for 21st Century Tools and Enterprise Support. This was also true in 2009 and reflects the widespread availability of high-speed broadband access and widespread use of security tools at all levels of education. Differences are more pronounced in the measures related to Anytime/Anywhere Access, Differentiated Learning and -- to a somewhat lesser degree -- Assessment Tools. In these three measures, respondents from elementary and secondary schools tend to give responses with lower scores than their counterparts from the district level or from postsecondary institutions. For example, average scores from respondents representing elementary and secondary schools are ten or more points lower than respondents from districts and colleges and universities on questions 6 and 7 related to institutional websites and access to resources via a multitude of mobile devices and access points. As noted earlier, some of this difference may relate to the respondent's perspective and awareness.



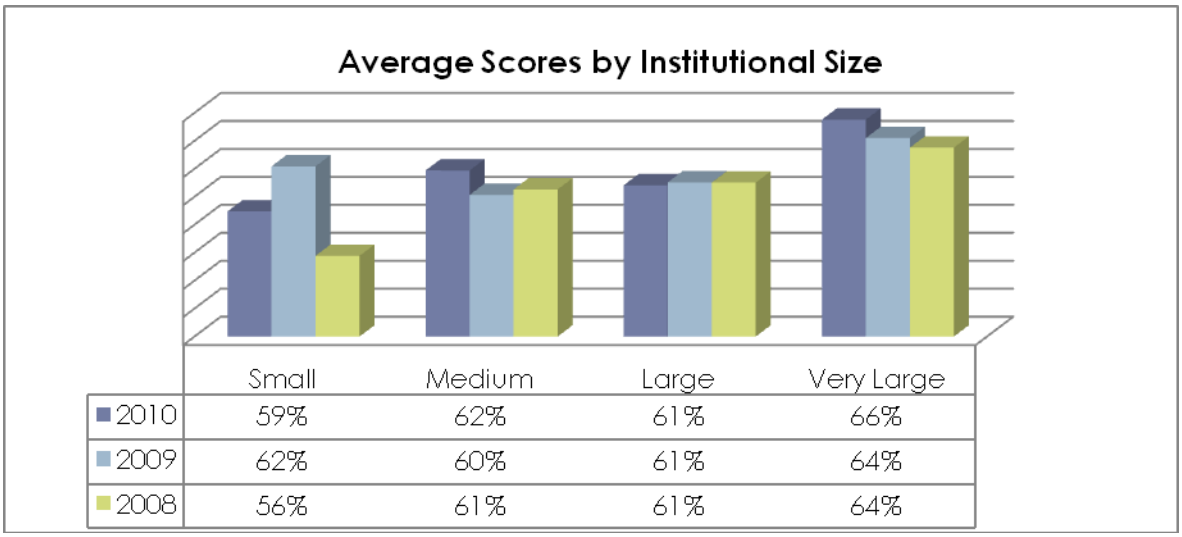
On the 2010 survey, postsecondary institutions scored between 66% and 74% on average on the Seven Vision Goals. At the K-12 level, district-level respondents scored 59% to 70%, while the average responses from educators at individual elementary and secondary schools are three to six percentage points lower than district respondents.

The largest differences between the K-12 and postsecondary sectors are in the following areas: enable students to learn from any place at any time, deepen learning and motivate students, and nurture creativity and self-expression.



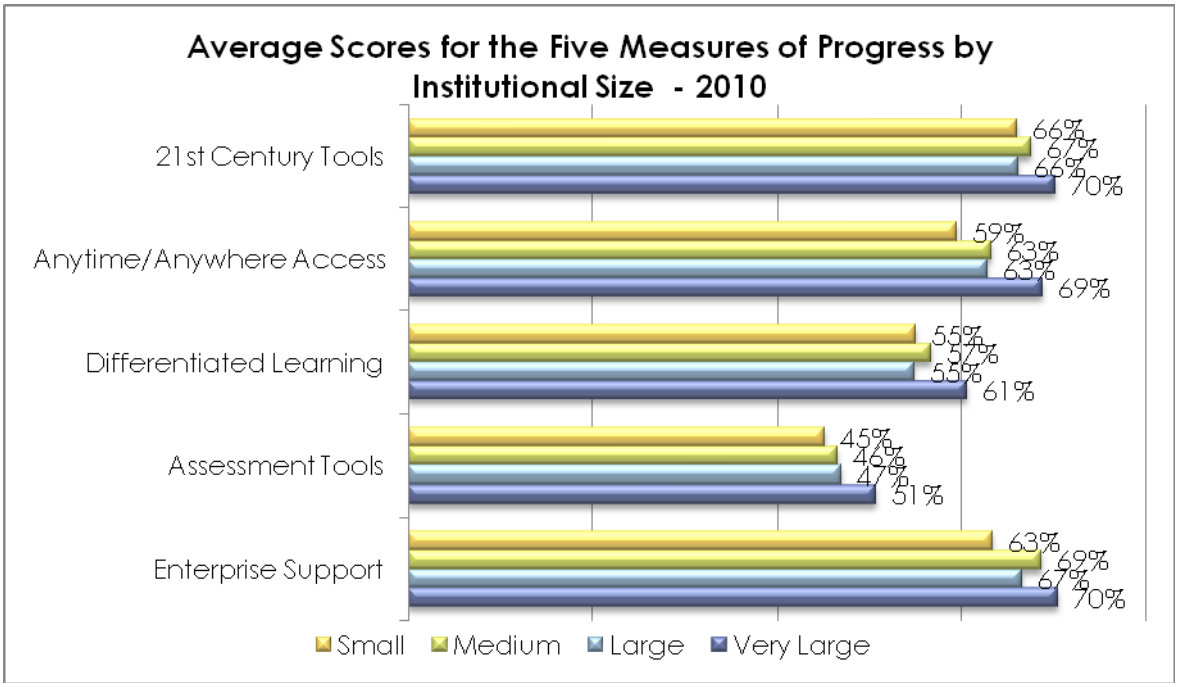
INSTITUTIONAL SIZE

In general, larger institutions are more likely to have higher scores – indicating greater progress toward the Vision Goals. In the 2010 survey, the average score for very large institutions was 66% compared with 59% for small institutions.

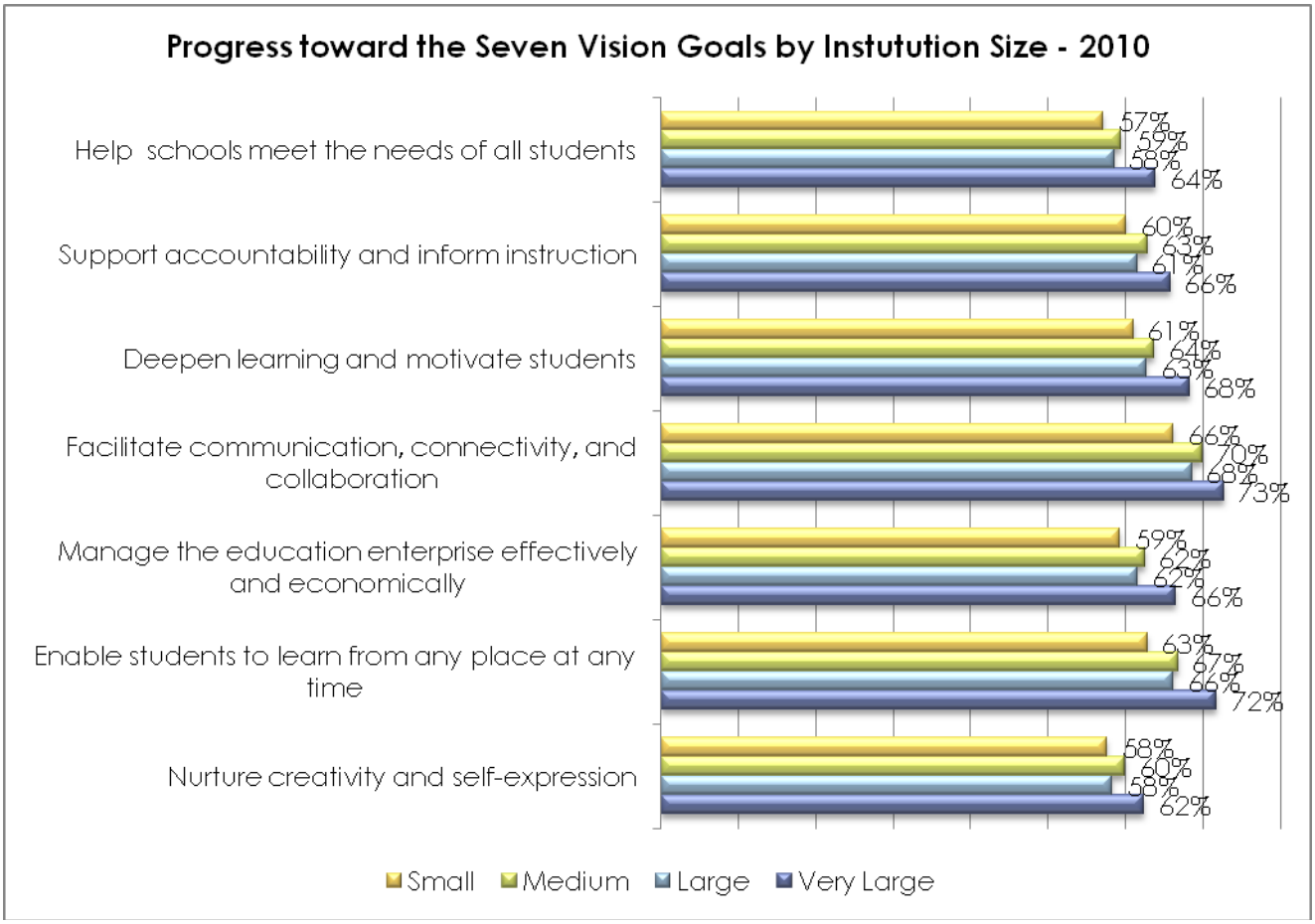


	Small	Medium	Large	Very Large
2010	59%	62%	61%	66%
2009	62%	60%	61%	64%
2008	56%	61%	61%	64%

On the Five Measures of Progress, there is only a four-point difference between the smallest and largest size institutions for 21st Century tools, but a much larger difference (10 percentage points) for Anytime/Anywhere access.

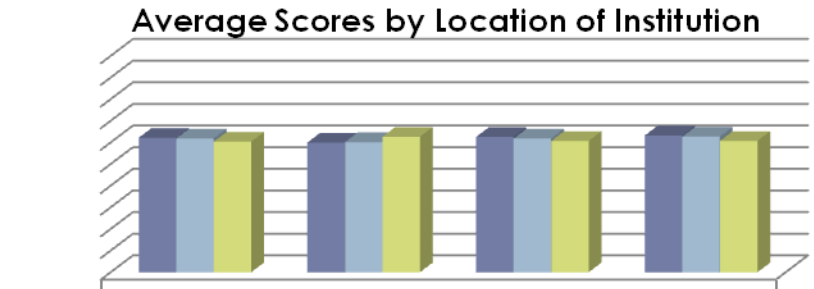


On the Seven Vision Goals, average scores are closest (with only a four percentage point difference between the smallest and largest institutions) for nurturing creativity and self-expression. The largest difference (seven percentage points) is for enabling students to learn from any place at any time.



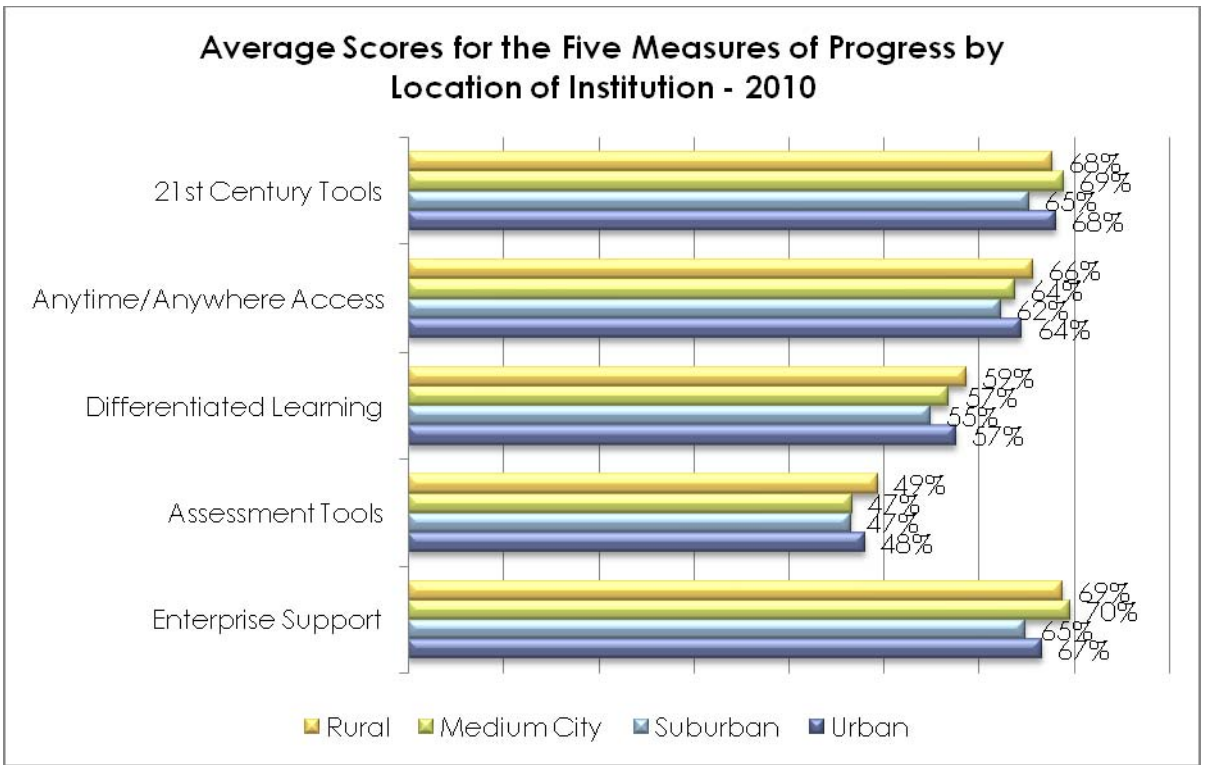
LOCATION

Location appears to have very little influence on an institution's average scores and what small differences there are have fluctuated across the past three years.

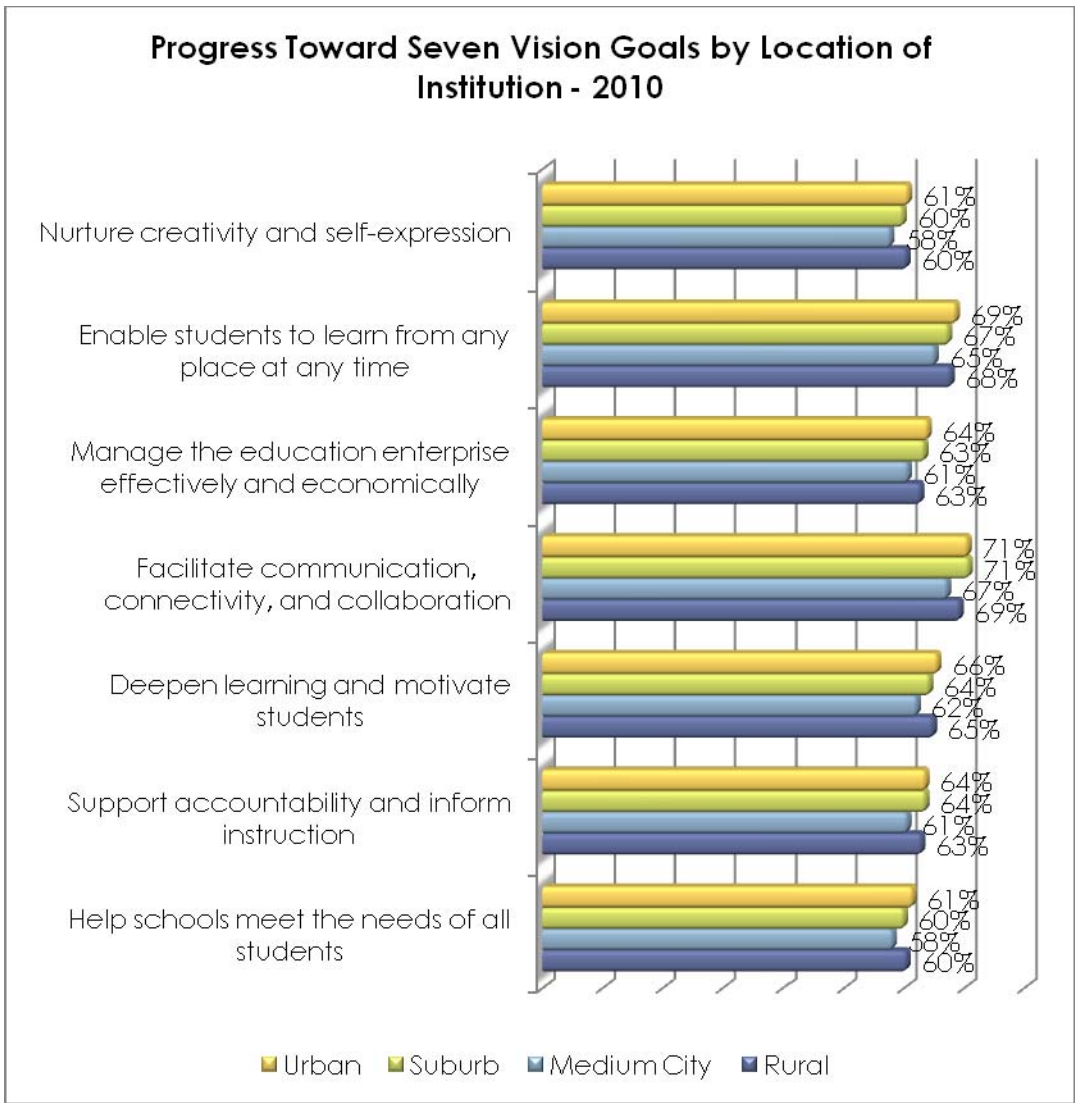


	Rural	Medium City	Suburban	Urban
2010	62%	60%	63%	63%
2009	62%	60%	62%	63%
2008	60%	63%	61%	61%

There are no consistent trends by location for the Five Measures of Progress, although institutions in rural, suburban, and urban settings have somewhat higher scores on most measures.



The picture is similar for average scores on the Seven Vision Goals, although urban institutions have made the most progress and institutions in medium-size cities have made the least progress on all of the goals. It should be emphasized; however, these differences are very small.


Progress Toward Seven Vision Goals by Location of Institution - 2010
Nurture creativity and self-expression
61%
60%
58%
60%
Enable students to learn from any place at any time
69%
67%
65%
68%
Manage the education enterprise effectively and economically
64%
63%
61%
63%
Facilitate communication, connectivity, and collaboration
71%
71%
67%
69%
Deepen learning and motivate students
66%
64%
62%
65%
Support accountability and inform instruction
64%
64%
61%
63%
Help schools meet the needs of all students
61%
60%
58%
60%
Urban
Suburb
Medium City
Rural

APPENDIX

VISION K-20 PARTNERS AND SUPPORTERS

We appreciate the work of our Vision K-20 partners who support SIIA's Vision K20 in many ways but we particularly thank them for their efforts to send their members and readers to the benchmarking survey this year. It helps increase the number of responders.

NAME	ADDRESS	URL
The Big Deal Book	1250 S. Grove Avenue, Suite 200 Barrington, IL. 60010	www.bigdealbook.com
Campus Technology	1105 Media, 9201 Oakdale Ave. Suite 101 Chatsworth, CA 91311	http://campustechnology.com
Consortium for School Networking (CoSN)	1025 Vermont Ave. NW, Ste 1010 Washington, DC 20005	http://www.cosn.org/
Curriki: The Global Education and Learning Community	20660 Stevens Creek Blvd., #332 Cupertino, CA 95014	http://www.curriki.org
eCampus News	7920 Norfolk Ave., Suite 900 Bethesda, MD 20814	http://www.ecampusnews.com
edWeb	PO Box 1387 Princeton, NJ 08542	http://www.edweb.net
eSchool News	7920 Norfolk Ave., Suite 900 Bethesda, MD 20814	http://www.eschoolnews.com/
iNACOL	1934 Old Gallows Road, Suite 350 Vienna, VA 22182	http://www.inacol.org
JDL Horizons	8201 Norman Center Drive, Ste 300 Bloomington, MN, 55437	http://www.jdlhorizons.com
THE Journal	1105 Media, 9201 Oakdale Ave. Suite 101 Chatsworth, CA 91311	http://thejournal.com/
The League for Innovation	4505 East Chandler Boulevard, Suite 250 Phoenix, Arizona 85048	http://www.league.org
Learning Times	P.O. Box 1397 New York, NY 10009	http://www.learningtimes.org/
Project Tomorrow	15707 Rockfield Boulevard Suite 330 Irvine, CA 92618	http://www.tomorrow.org/
School Interoperability Framework Association (SIFA)	1090 Vermont Ave., NW FL 6 Washington, DC 20005	http://www.sifinfo.org/
TechLearning.com	1111 Bayhill Drive, Ste 125 San Bruno, CA 94066	http://techlearning.com/
Today's Catholic Teacher Magazine	2621 Dryden Road, Ste 300 Dayton, OH 45439	http://www.catholicteacher.com
WeAreTeachers	8105 Shoal Creek Blvd. Austin, TX 78750	http://WeAreTeachers.com
WeTheTeachers	126 Blackwelder Ct Stanford, CA 94305	http://www.wetheteachers.com

We also thank the many SIIA members who emailed their education customers and colleagues who emailed education contacts, posted information on their web sites or Facebook pages, and blogged and Tweeted about the Survey. We also appreciate the support of enTourage Systems, Inc, who provided the enTourage Edge 'dual book' to the winner of a drawing of the survey responders.

SIIA MEMBERS ACTIVE IN THE EDUCATION DIVISION

- ABC-CLIO Interactive Media Division
- Academic Benchmarks
- Academic Business Advisors, LLC
- Adobe Systems, Inc.
- American Public University
- Apangea Learning
- Apella Consulting
- Apple Education
- Arc Capital Development
- Atlas Advisors
- Atomic Learning
- Avant Assessment, LLC
- Avanti Management Group
- Benchmark Education Company
- Berkery Noyes
- Big Deal Books/Marketing Projects, Inc.
- Blackboard Inc.
- BrainWare Safari/Learning Enhancement Corporation
- BSG Team Ventures
- C. Blohm & Associates, Inc.
- Cambium Learning Group, Voyager Learning Company
- CampusCruiser
- Capstone Digital
- Casabonne Associates, Inc.
- Centris Group
- Century Consultants, Ltd.
- Cherry Tree & Associates, LLC
- ClassLink Technologies
- Coaxis Services, Inc.
- College Board-- SpringBoard Division
- CollinsConsults
- CompassLearning
- Computer Power Solutions of Illinois, Ltd.
- ConnectEDU
- ConnectYard Inc.
- Consulting Services for Education
- Critical Links
- CyberSmart! Education Company
- Digital Directions International, Inc.
- Digital Millennial Consulting
- Dorsey & Whitney LLP
- Driver Public Relations
- E.T.C. International
- eChalk, Inc.
- EdTech Systems
- Education Networks of America (ENA)
- Education TURNKEY Systems, Inc.
- Education Week and Digital Directions
- Educational Systemics, Inc.
- edWeb, LLC
- Emantras, Inc
- Empirical Education, Inc.
- ePals
- eSpindle aka LearnThat
- eThority
- Ferrio Associates
- Florida Virtual School- Global Services Division
- Follett Corporation - Technology Solutions & International Group
- Full Potential Associates
- Gilfus Education Group
- GlobalScholar
- Google
- Haiku Learning Systems, Inc.
- Headsprout, Inc.
- Houghton Mifflin Harcourt
- IBM Corporation
- I-EDIT
- Impact Education
- Inigral, Inc.
- Inspiration Software, Inc.
- Intel Corporation
- Interactive Educational Systems Design, Inc.
- Intrinsic Strategy
- JASON Project
- JDL Horizons
- Jordan, Edmiston Group, Inc.
- K12, Inc.
- KC Distance Learning
- Key Curriculum Press
- KnowledgeBears.com, Inc.
- Learning.com
- LearningTimes
- LearnLift
- Lerner Publishing Group
- Lexia Learning Systems, Inc.

- Lightspeed Systems
- MCH, Inc.
- MDR
- Measured Progress
- MemeSpark LLC
- MetaMetrics, Inc.
- MIND Research Institute
- MMS Education
- Monarch Teaching Technologies
- Moodlerooms
- Muzzy Lane, Inc.
- National Center for Science, Literacy, Education and Technology
- National Geographic School Publishing
- netTrekker
- New Markets Venture Partners
- Northrop Grumman Educational Assessment Group
- One-to-One Institute
- PASCO Scientific
- Pat Walkington Education Sales & Marketing
- Paula Maylahn
- Pearson Education
- Pegeen Wright Associates
- Penn Foster Virtual High School
- Polemos Academy
- PolyVision
- Preble and Associates
- Psychological Software Solutions
- Quayle Munro Inc.
- Rawitsch Consulting
- Red Apple Digital
- RedRock Reports
- Ripple Effects, Inc.
- RM Education Software
- Ruppelt Consulting
- SAS Institute
- Sassafras Software, Inc.
- Scantron Corporation Testing & Assessment Division
- Scholastic Education
- School Improvement Network
- School Specialty Intervention
- SchoolCenter
- SchoolFusion
- Schoolwires
- Sebit, LLC
- Second Avenue Software
- Seeds Software
- Six Red Marbles
- SMART Technologies ULC
- SMARTHINKING
- SoftChalk, LLC
- Spectrum K12 School Solutions, Inc.
- SRI International - Center for Technology in Learning
- TechERA
- Texas Instruments, Inc. Education & Productivity Solutions Business
- Texthelp Systems, Inc.
- The Greaves Group, LLC
- The McGraw-Hill Companies, Inc.
- The Renaissance Network
- Turning Technologies - K-12
- Tutor.com
- Twist Education, LLC
- uBoost
- Veritas Strategies
- VIP Tone, Inc.
- Virtual Expert Clinics, Inc.
- Vocab Network, LLC
- WeAreTeachers
- Will Interactive
- Winter Group
- World Book

THE VISION K-20 SURVEY – AS HOSTED ON THE VISION K-20 WEBSITE

Checking Your Progress Toward the SIIA Vision

Please read each measure in the list below and choose the one scenario that most closely describes your organization's current status.

There are a total of 20 measures in the survey and it should take approximately 10 minutes to complete. You can print out the survey to review and select each scenario before entering your choices online, since you will not be able to save a partially-completed survey.

Your individual data will never be made public, but it will be used to calculate the results for your progress chart and will be aggregated into a final report. We recommend that you save your results (offline) so you can compare to subsequent year results.

21st Century Tools

Educational content is delivered flexibly in digital formats, media and platforms

- (•) Delivered primarily through print materials
- ( ) Delivered through print materials and some technology
- ( ) Delivered through an equal blend of print materials and technology
- ( ) Delivered primarily though technology with some print-only materials

Interactive, adaptive, multimedia courseware and simulations are used in teaching and learning

- ( ) Used infrequently
- ( ) Used occasionally
- ( ) Used regularly
- ( ) Integrated into the curriculum

Information systems provide digital student and achievement data that support instructional decisions by educators and administrators

- ○ Data are *not* available in digital format
- ○ Data are *sporadically* available in digital format
- ○ Data are *routinely* available in digital format
- ◉ Data are *consistently and completely* provided in digital format

High-speed broadband access is available for robust communication, administrative and instructional needs

- ○ Access is *not available* in the school/campus
- ○ Access is available, but only in a *few* school, district, or campus locations
- ○ Access is available in *most* classrooms, libraries and student/educator workspaces
- ○ Robust, reliable high-speed access is available *throughout* the school/campus for all needs and demands

Anytime/Anywhere Access

High-speed broadband access enables instructional uses that include collaborative learning, video-based communication and other multimedia-rich interactions

- ○ Access is not available
- ◉ Access is available but not for instructional purposes
- ○ Access is available and used sporadically for instructional purposes
- ○ Access is used throughout the school/campus for instructional purposes

An institution website/portal provides the education community with access to applications, resources and collaboration tools

- ○ *No* education website/portal exists for the institution
- ○ A *limited* education website/portal is available for *accessing* some administrative information
- ○ A limited education website/portal is available for *entering and accessing* administrative and academic information
- ◉ An *extensive* education website/portal provides administrative, instructional and collaborative tools and resources

Ubiquitous, reliable access to resources and services is available through a multitude of mobile devices and access points

- *No* wireless access is provided by the institution
- Wireless access is available in *some locations*, supporting a few mobile devices
- Wireless access is *widely available*, with support for many mobile devices
- *Ubiquitous* and reliable access is available for most all student, educator and administrator devices

Online courses ensure all students have access to high-quality instruction, no matter their location or schedule

- Online courses are *not available* to students
- Online courses are available for a *small number* of courses
- A *large number* of online courses and virtual program options are available
- A *full catalog* of online courses/programs is available to all students and is a fully-acceptable option

Access to online professional development resources, courses and peer collaborative communities is provided

- Professional development is only offered *face-to-face*
- A *limited number* of online professional development offerings is available.
- Online professional development and virtual peer communities *are employed* by educators and administrators
- Both online professional development courses and virtual peer collaborative communities *are widely employed* by educators and administrators

Differentiated Learning

Students have access to courseware and technology-based curriculum

- Not available to students
- Are available for *some* students/classes
- Are available for *many* students/classes
- Are available for *all* students/courses

Electronic supplemental instructional resources and online tutoring are accessible to all students

- *Not* available to students
- Are available for *some* students/courses
- Are available for *many* students/courses
- Are available for *all* students/courses

Courseware and learning management systems differentiate instruction

- *Not used* to differentiate instruction in any courses
- Are used to differentiate instruction in a *few* courses
- Are used to differentiate instruction in *many* courses
- Are used to differentiate instruction *throughout* the institution

Assessment Tools

Personal ePortfolios travel with students to demonstrate a wide range of skills and knowledge

- Are *not* implemented
- Are implemented *occasionally* for some courses
- Are implemented for *many* courses
- Are fully implemented *throughout* the education system

Computer-based or online assessments are used to inform instruction

- *No* assessments are done using technology
- *Some* assessments are done using technology
- *Most* assessments are done using technology
- *All* assessments are done using technology

Technology-based assessments measure a full range of 21st Century skills and knowledge

- *Not* used as paper and pencil assessments are the norm
- *Occasionally* used to measure student achievement
- *Often* used to measure student achievement and 21st century skills
- *Always* used to measure student achievement and 21st century skills

Enterprise Support

Information systems track performance and institutional data for educational accountability and decision making

- Data are *not widely* available in digital format
- Data are *sometimes* available in digital format but are isolated within discrete applications
- Data are *routinely* available in digital format, and systems enable some data to move across applications
- *All data are* available in digital format and systems enable aggregation and analysis from multiple applications

Educators have access to the level of technology resources, training and support common to other professionals

- Technology is old, unsupported and not easily available
- Technology is available but with *very limited* training or support
- Technology is available with *some* training and support
- Technology is widely available with *full* training and support

Robust enterprise applications and systems are in place to support institutional management and business activities

- Few are in place and most are old and disconnected
- Some are in place and current, but not integrated
- Most are robust and integrated
- Robust applications/systems support *all* management and business activities

Institution leaders use technology tools for planning, budgeting and decision making

- Are used *occasionally* in the normal operations of the institution
- Are integrated in *some* of the business and management operations
- Are integrated in *many* of the business and management operations
- Are *fully* integrated throughout all stages of the institution's business practices

Security tools are used to protect student data and privacy

- Are *not* used
- Are used only for a *few* applications/systems/computers
- Are used for *most* applications/systems/computers
- Are used for *all* applications/systems/computers

Organization Demographics

At what education level is your institution?

- Elementary
- Secondary
- K-12 District
- Postsecondary

Are you responding for your:

- Class / Course
- School / Department
- District / Campus

Is your school district or college/university:

- ○ Small [under 450 students]
- ○ Medium [450 - 1,500 students]
- ○ Large [1,500 - 7,500 students]
- ○ Very Large [over 7,500 students]

Is your school district or college/university located in an area best described as:

- ○ Rural / Small town
- ○ Medium City
- ○ Suburb of urban area
- ○ Urban area

ABOUT SIIA AND THE EDUCATION DIVISION

The Software & Information Industry Association (SIIA) is the principal trade association for the software and digital content industry. SIIA provides global services in government relations, business development, corporate education and intellectual property protection to more than 550 leading software and information companies.

SIIA's Education Division serves and represents over 140 member companies that provide software, digital content and other technologies that address educational needs. The Division shapes and supports the industry by providing leadership, advocacy, business development opportunities and critical market information. SIIA's Education Division provides a neutral business forum for its members to understand business models, technological advancements, market trends, and best practices. With the leadership of the Division Board and collaborative efforts with educators and other stakeholders, the Division undertakes initiatives to enhance the use of educational technology and the success of SIIA members.

For more information, see: www.siia.net/education/

ABOUT THE VISION K-20 CONTRIBUTORS

The SIIA Vision K-20 initiative has many contributors who have supported the project since its inception.

We would like to thank the Education Division Committees and members for their contributions to the development of the initiative:

SIIA Education Division Board of Directors

SIIA Education Division Working Group on the Vision K-20

SIIA Education Division Marketing Committee

CollinsConsults

Focus Marketing

The Winter Group

We also thank Gretchen Rigol for the data analysis and Market Data Retrieval for their marketing services.

We appreciate the work of all reviewers of the Vision document, website and survey, especially our member companies (listed in the appendix), educators, representatives of the technology industry and the education community.

Please contact the SIIA Education Division if you have suggestions or comments on this document. Email education@siia.net