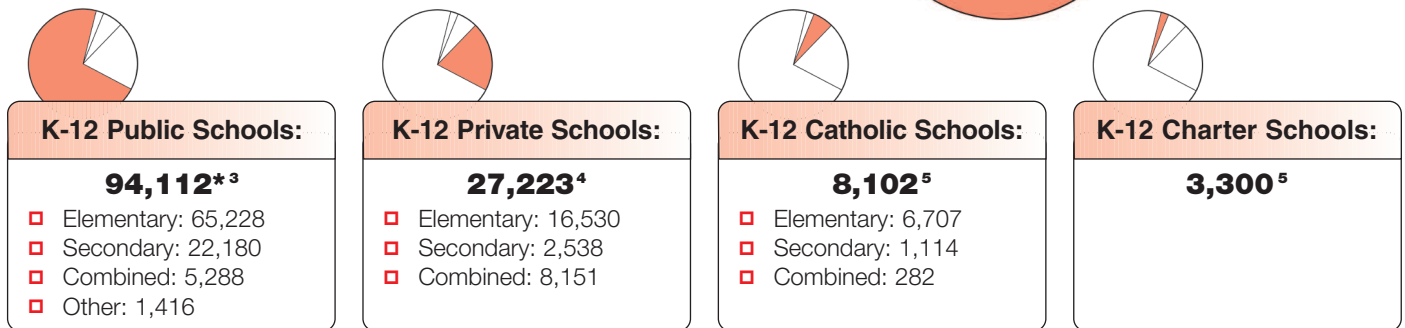
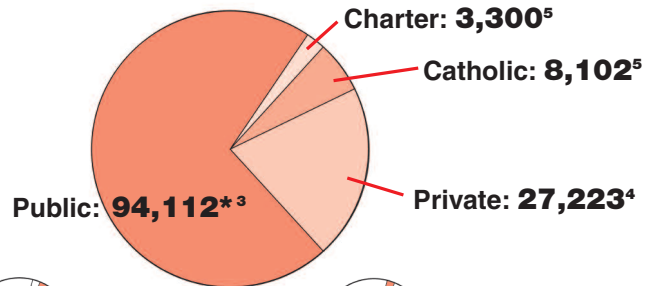




Panoramic Market View

Market Overview

- > According to *Projections of Education Statistics to 2013* by the National Center for Education Statistics (NCES), total public and private elementary and secondary school enrollment was 54 million in Fall 2001, approximately 19 percent more than Fall 1988. Enrollment is expected to continue to grow, but more slowly, increasing a predicted 5 percent by 2013.¹
- > According to *Digest of Education Statistics 2003* from the NCES the total number of public school districts is **14,559**.² Within which are **132,737 K-12 schools**, of which the following are available:

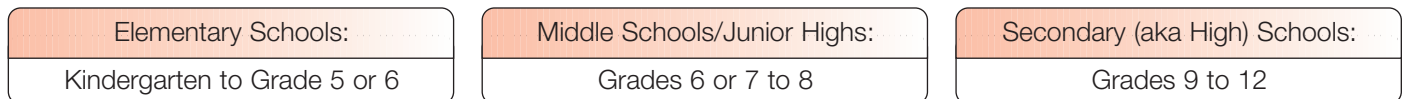


- > The majority of schools, 59 percent, are in large or midsized cities or their accompanying urban fringe areas.⁶

* Schools come in all combinations of grades. To allow comparisons across states, elementary and secondary school definitions were determined in this study by the lowest and highest grade in a school. Among the 94,112 schools with membership during the 2001-02 school year, 58 percent spanned the primary grades, beginning with prekindergarten or kindergarten and going no higher than grade 8. Middle schools, those with grade spans ranging from as low as grade 4 to as high as grade 9, made up 17 percent of schools with students. High schools (low grade of 7 or higher, high grade of 12) accounted for an additional 19 percent of schools. Some 6 percent of schools had a grade configuration that did not fit into any of these three categories.

Segmentation

- > The U.S. K-12 education market is divided into:



Sales Channel

- > Primary and secondary schools typically purchase their computer products from **VARs** with experience in the education industry as well as through education focused divisions of **DMR/mail order** companies such as CDW-G at CDW and GovConnection at PC Connection.
- > Many schools and school districts elect to purchase **directly from the manufacturer**.
- > Customization of the Tablet PC is often required to include logistics and ecommerce support.

Primary Decision Maker

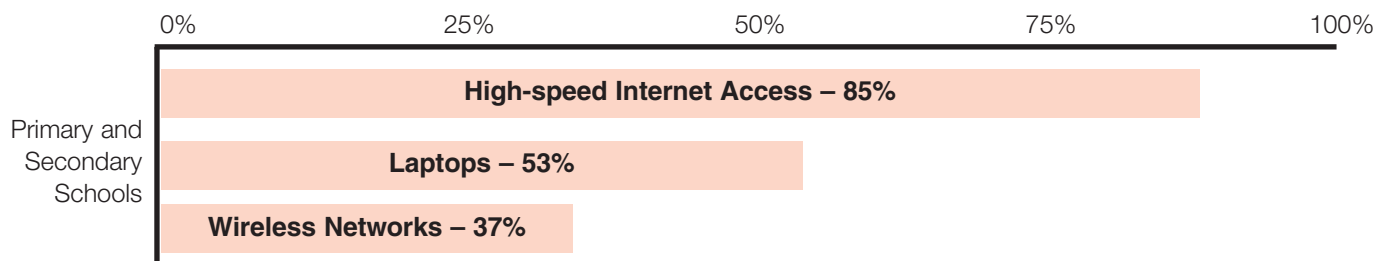
- > The primary decision makers in most K-12 public schools are the **superintendent and school board**. In addition, **district-level IT managers or academic IT administrators** are influential. Most private schools and some public schools utilize committees in which input from teachers and other administrators is critical.
- > The typical school purchasing cycle is made up of three stages:

January	February	March	April	May	June	July	August	September	October	November	December
Winter: School budgets are being written and presented to school boards. If bids are required, they are being sent out and then reviewed.			Spring: Discretionary spending occurs when dollars are left over. This is the ideal time for school administrators to purchase additional notebooks, accessories, supplemental materials, software and other items that fall under caps of \$4,000.			Fall: New school year dollars are being spent, projects are implemented and the need for additional technology is being determined for the following school year.					



Relevant Trends

- > In 2002-2004, 84 percent of primary and secondary schools had **high-speed Internet access**, 53 percent had laptops, and 37 percent had **wireless networks**.⁷
- > According to the *Technology in Education 2004* report, K-12 **schools were projected to spend just over \$5 billion on technology** in 2004, 18 percent more than in 2003. \$3.5 billion of this was projected to be spent on hardware.⁸
- > Additionally, through the Enhancing Education Through Technology initiative, **more than \$700 million has been dedicated to the use of technology in education**.⁹
- > **No Child Left Behind (NCLB)** is an opportunity for technology funding since technology can be used to help accomplish specific program goals.
 - ▣ NCLB consolidates the Technology Literacy Challenge Fund and the Technology Innovation Challenge Grant programs into a single state formula grant program to **support the integration of educational technology into classrooms** and improve teaching and learning.
 - ▣ Requires the use of at least 25 percent of funds for professional development to **integrate technology into instruction**.⁹



Computing Infrastructure Assessment

- > According to the National Center for Education Statistics:
 - ▣ Sixty-six percent of public school teachers use computers or the Internet for teaching.¹⁰
 - ▣ Forty-one percent of teachers assigned work that required students to use software applications to a moderate or large extent.¹⁰
 - ▣ Approximately 30 percent of teachers assigned practice drills or research projects that required students to use the Internet to a moderate or large extent.¹⁰
- ▣ Teachers with fewer years of experience are more likely to use computers or the Internet to perform their jobs.¹⁰
- ▣ Access to computers in schools varies widely, ranging from dedicated computers in each classroom to mobile computer carts to dedicated computer labs. Typically, teachers are responsible for maintaining the computers located in their classrooms.

Decision-Maker Concerns

- > **Low Cost of Ownership.** Technology decision makers at the district and individual school level are feeling the squeeze of diminished state funding and, as a result, budget is a pre-eminent concern.
- > **Tech Support.** Most K-12 schools cannot afford to have a full-time IT manager on site and instead rely on faculty to maintain their computers and networks. To address this issue, qualified resellers can offer fixed-cost technical support and recurring training contracts (if available).
- > **Professional Development.** Adequate funding to offer professional development for teachers is crucial for the successful adoption of technology in the classroom. Teachers not only need training on how to use the technology, but they also need specific guidance on how they can incorporate it into the curriculum.



Value Proposition Statements

- > Introducing students to technology at a younger age is **one important step toward helping them succeed in school**. Using the pen on the Tablet PC is similar to writing with pen and paper, while also learning to **use state-of-the-art technology**. Tying familiar skills to new ones enables more effective learning.
- > Students are excited about using Tablet PCs in the classroom and, as a result, **stay on task with their assignments**.
- > Toshiba Tablet PCs have integrated wireless capability, **enabling both teachers and students to participate** in distributed learning environments. They can conduct research, submit homework assignments, review and grade papers, inside or outside the classroom.*
- > Unlike notebook PCs but like a paper notebook, students can use the Tablet PC to write or draw directly on the screen, **eliminating retyping notes**. In addition, all their **notes are better organized** since they are stored on the computer rather than scattered across various sheets of paper.
- > Toshiba Tablet PCs enable **dual coding of knowledge** – linguistic information supported by physical model/graphical representation – to improve student learning.
- > Toshiba's **Simply Mobile!** cart combined with Portégé M200 Tablet PCs is a **complete computer lab on wheels** providing power, wireless AP and storage for up to 30 notebooks.
- > Teachers can benefit from the Toshiba Tablet PC by **adding a Toshiba wireless projector to create a virtual interactive whiteboard**. The addition of a wireless projector with a document camera can also replace a bulky opaque projector and overhead projector with the following benefits:
 - ▣ Collaborative teaching in the classroom
 - ▣ Fully mobile versus traditional fixed installations
 - ▣ Lower total cost of ownership (TCO), due to less supplies (i.e., lamp for projector and battery for Tablet PC)
 - ▣ Easier sourcing/management – one vendor for both
- > Teachers can enjoy **paperless grading** of student work using digital ink and email. This results in a streamlined exchange of work, as well as a complete audit trail since the teacher can save the original submission, an annotated copy and the final copy.
- > Digital ink functionality translates to **speedy teacher observations/evaluations** for administrators who have traditionally been forced to document handwritten notes into a computer – perhaps days after they were made.

* May require purchase of additional software, external hardware, or services.

Additional Resources:

American Association of School Administrators - <http://www.aasa.org>

National Center for Education Statistics - <http://nces.ed.gov>

Technology and Learning - <http://www.techlearning.com>

Cincinnati Country Day School Technology Program - <http://www.countryday.net/topsintechnology.asp>

References:

- 1 http://nces.ed.gov/programs/projections/ch_1.asp. Accessed 2/7/05.
- 2 <http://nces.ed.gov/programs/digest/d03/tables/dt085.asp>. Accessed 2/7/05.
- 3 <http://nces.ed.gov/programs/digest/d03/tables/dt092.asp>. Accessed 2/7/05.
- 4 <http://www.edreform.com/index.cfm?fuseAction=section&psectionID=15&cSectionID=97>. Accessed 2/7/05.
- 5 <http://nces.ed.gov/programs/digest/d03/tables/dt058.asp>. Accessed 2/7/05.
- 6 <http://nces.ed.gov/programs/digest/d03/tables/dt088.asp>. Accessed 2/7/05.
- 7 <http://www.schooldata.com/mdrtechhilites.asp>. Accessed 2/7/05.
- 8 <http://www.schooldata.com/mdrtechhilites.asp#mobile>. Accessed 2/7/05.
- 9 <http://www.ed.gov/about/offices/list/os/technology/facts.html>. Accessed 2/7/05.
- 10 <http://nces.ed.gov/pubs2000/2000090.pdf>. Accessed 2/7/05.

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Toshiba recommends Microsoft® Windows® XP Tablet PC Edition.



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