Education Influence & Influencers

A Market Probe into the New Dynamics in Education
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GA GRUNWALD ASSOCIATES

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DEFINING THE SCOPE: The Education Market is HUGE

At over half a trillion dollars, elementary and secondary school expenditures account for more than 4% of the GDP. Through their expenditures alone, K–12 school systems have significant economic and social impact.

EDUCATION REIMAGINED: Dissatisfaction Stimulates Fundamental Shift

Driven by rising levels of dissatisfaction with the state of education among educational decision makers, the stage is set for dramatic change in school districts across the country. There is a strong consensus that the status quo is not good enough anymore.

The groundswell of support for innovation in elementary and secondary schools has reached critical mass among education decision makers. As technology becomes a part of the everyday school experience, interest in additional technological concepts increases.

THE PUSH ⇔ PULL EFFECT: How Symbiosis Fosters Change

The PUSH-PULL Effect: A symbiotic relationship between schools and their communities creates a spiral of innovation that drives technological change.

As a school or district's interest in technology and innovation grows, there is direct and widespread impact on the communities around it. In essence, educators push innovation onto their communities, raising the technology bar.

Although schools impact technology adoption and technology behaviors at home among both kids and their parents, the school-to-community relationship is more cooperative than unidirectional. Parents and other community members are increasingly powerful agents for change in schools. The pull to higher technology that communities force is expected to increase over time.

BROKEN SILOS: A New Player Leads Education

In the nation's more innovative districts, technology decision making is strikingly decentralized, with many different people having influence. Influence in decision making for school or education environments defies classification based on title alone. "Education Influencers" are a psychographic segment, not a demographic one.

With a social and political activist approach, Education Influencers are the people leading discussions and setting the agenda for their communities. They are sought for advice from colleagues and friends. They are also knowledge seekers on a lifelong quest to learn new things and seek new information and experiences.

Though not definable as a segment strictly based on demographics, Education Influencers share certain demographic characteristics; specifically, they tend to be Baby Boomers with high incomes. They are constantly engaging in new projects, planning major purchases and avidly seeking product information online.

Education Influencers have information needs that have gone unmet. In education today, there is no one media source that fulfills their information needs. There is a need and desire for an education thought-leader source.

THE POWER BROKER: Impact of the Education Influencer

The portrait of an Education Influencer is one of substantial power. They are an extremely influential group of people whose impact exceeds far beyond their numbers. In a typical week, an Education Influencer makes recommendations and gives advice to twenty people.

Education Influencers are heavily involved in the decision-making process that allocates billions of dollars every year. Their decisions and recommendations impact tens of thousands of students and families per influencer each year.

The heavy use of the Internet as a communication tool by Education Influencers generates a viral effect that exponentially increases their impact to an even larger and more diverse audience.

## METHODOLOGY: Inside the Research

A propriety quantitative online survey was conducted with a cross-section of individuals who influence the process by which schools, districts and states choose the educational tools and technologies used in school environments.

In addition, three existing Grunwald Associates survey databases were used to generate the findings.

The Education Market is HUGE. Elementary and secondary school expenditures account for more than 4% of the GDP.
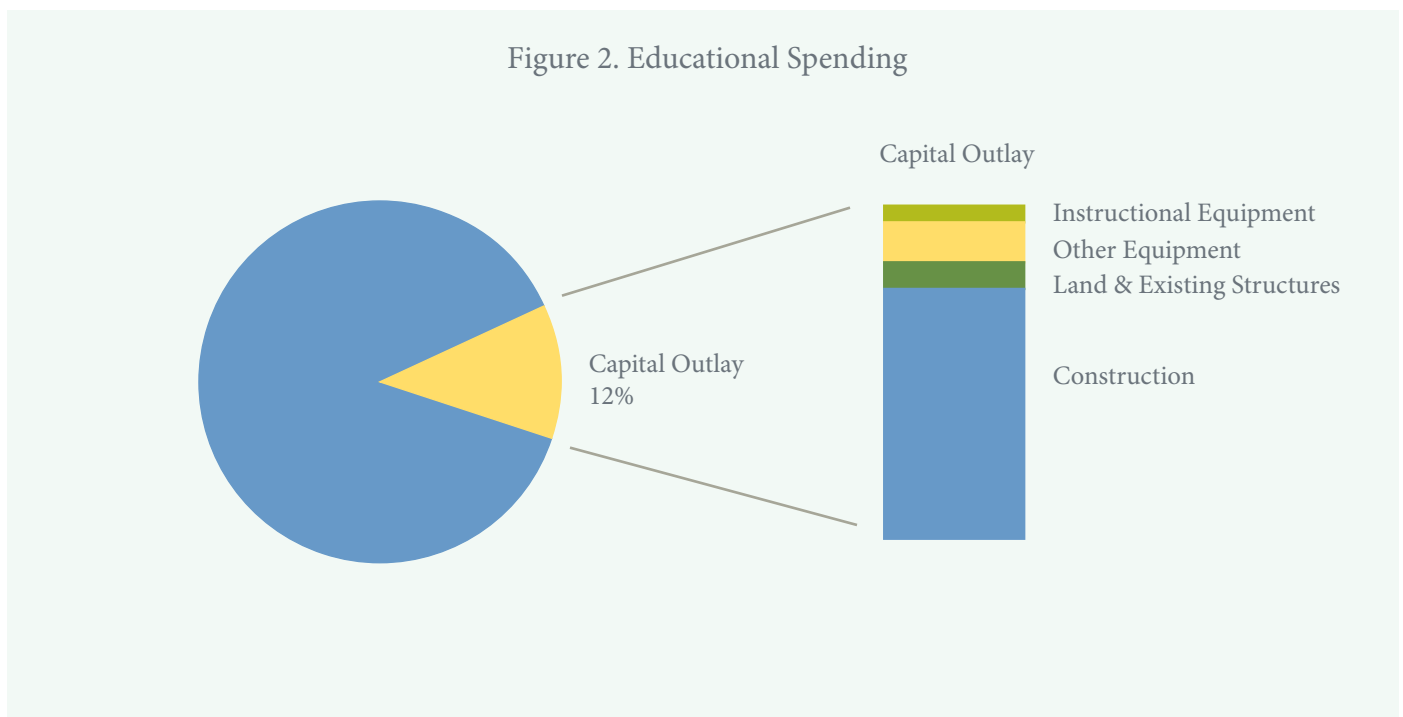
In the last fiscal year, more than half a trillion dollars was spent in elementary and secondary schools. Today, spending is more than double what was spent just thirteen years ago. Over the past decade, growth in expenditures has outpaced the rate of inflation. The rate of annual growth the past fourteen years has ranged from a low of 4.0% to a high of 7.6% at the beginning of the millennium.

Figure 1. Expenditures for Elementary and Secondary Education
In Billions of Dollars
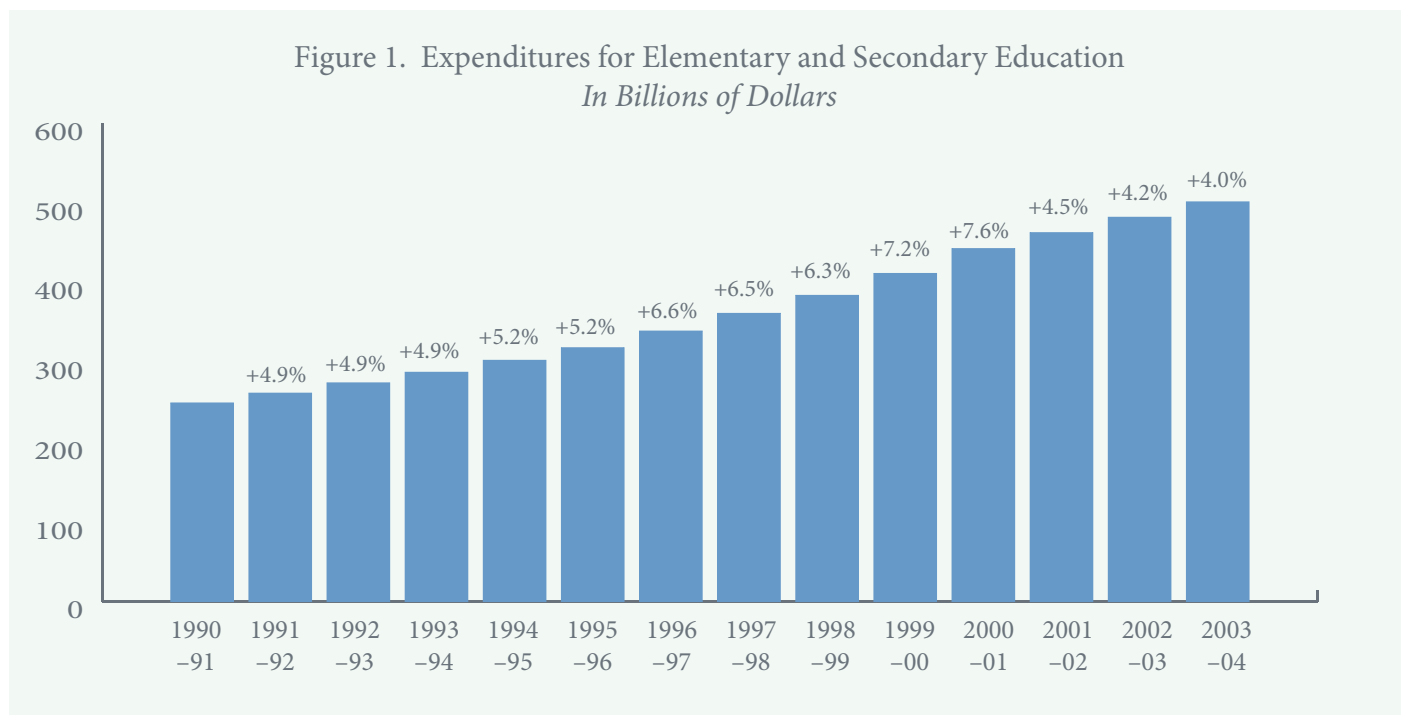
Source: National Center for Educational Statistics, 2004

Through their expenditures alone, K–12 school systems have signifiant economic and social impact.

Though most of the money spent on K–12 education is spent on staff salaries, benefits and facilities, with budgets this big, even a small share represents tremendous spending. With a solid 12% of total expenditures going for capital outlays, this category represents over $50 billion in spending.

Figure 2. Educational Spending

Capital Outlay

Capital Outlay
12%

Instructional Equipment
Other Equipment
Land & Existing Structures

Construction

Source: U.S. Census Bureau, Government Finances, 2001–02

Over $9 billion was spent on equipment alone in 2002, according to the U.S. Census Bureau's most recent comprehensive assessment.

Dissatisfaction Stimulates Fundamental Shift. The stage is set for dramatic change in school districts across the country. There is a strong consensus that the status quo is not good enough anymore.

Many education leaders and decision makers (those who are responsible for decision making and spending in education) are highly dissatisfied with the way education is being carried out in their districts today.

- More educators are dissatisfied than satisfied with the quality of education provided in their districts.
- A strong majority is dissatisfied with the level of access to technology provided in their district's classrooms.

Figure 3. Attitudes Toward Education

K–12 Education Provided	Satisfied
	Dissatisfied
Classroom Access to Technology	Satisfied
	Dissatisfied

0   10%   20%   30%   40%   50%   60%
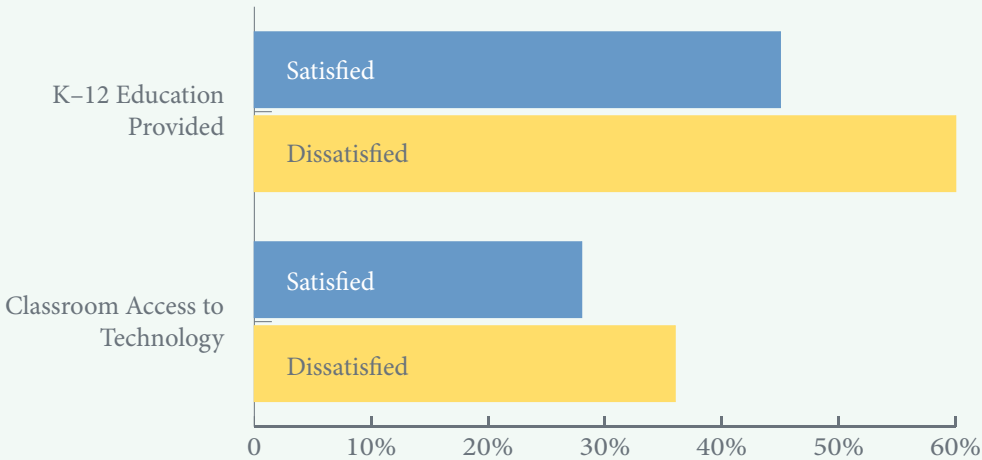
Educators are abandoning the "old school" image. There is a groundswell of support for innovation in elementary and secondary schools.

There is a surprising degree of consistency in attitudes among individuals in the education market. Today's education decision makers and influencers favor progressive techniques such as project-based learning, which they feel have been seriously underutilized in their districts. Furthermore, they strongly oppose the current emphasis on standardized testing in their schools (Figure 4). Even more striking, this consensus is against the grain of the No Child Left Behind mandates.

Figure 4. Attitudes Toward Education
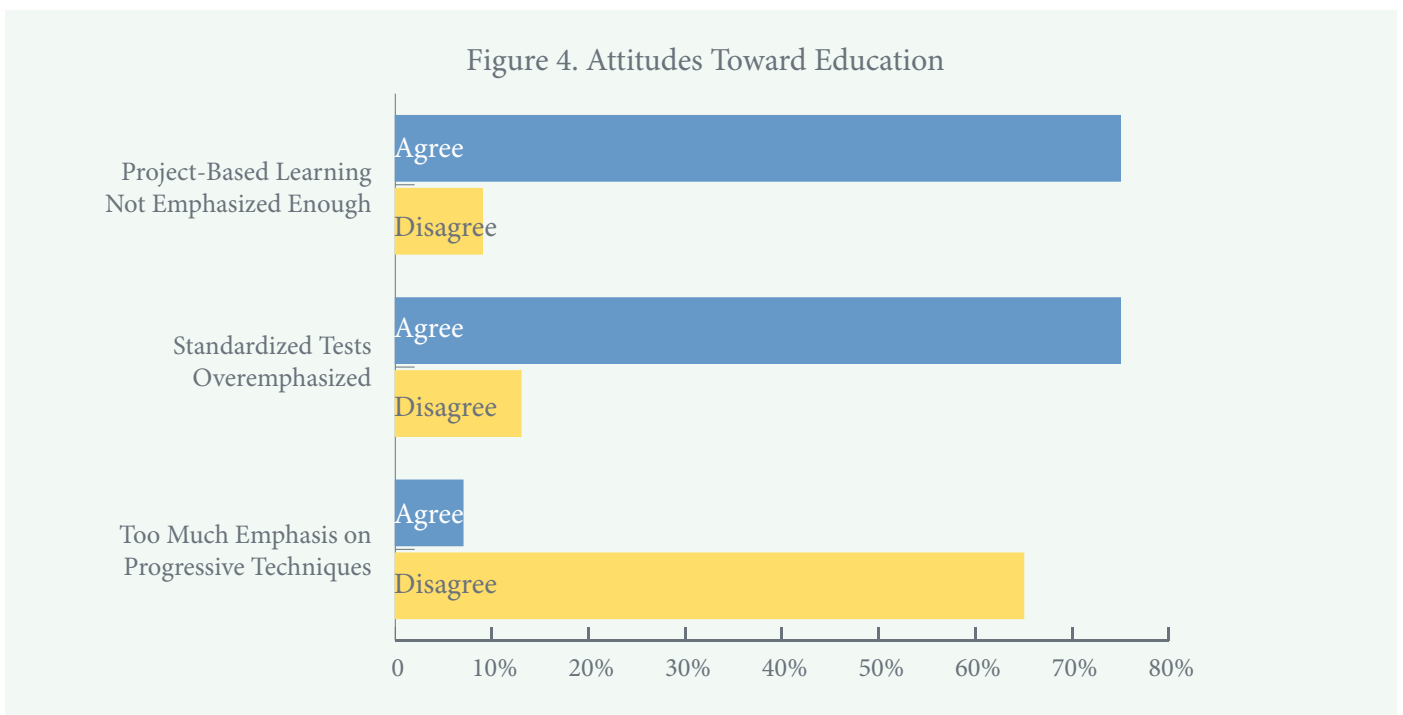
It is the dawn of a new era in classrooms. Fundamental change is reaching critical mass.

Interest in innovation is more than just talk. District leaders tell us that broadband has approached ubiquity in classrooms. Furthermore, there is a critical mass of innovation-enabling technologies such as wireless networks and laptop programs in schools today.

- 95% of the nation's classrooms now have high-speed Internet access.[1]
- More than one in five (21%) of America's classrooms have wireless access today.[2]
- Nearly one in five school districts have programs that provide laptops to students, including more than one-third of the nation's largest districts.[3]

Comparing districts, roughly half of the school districts surveyed are significantly more innovative than the other half.[4] Though all the districts may not have actually fulfilled their innovation desires, a critical mass of districts have a strong interest and leaning toward innovation.
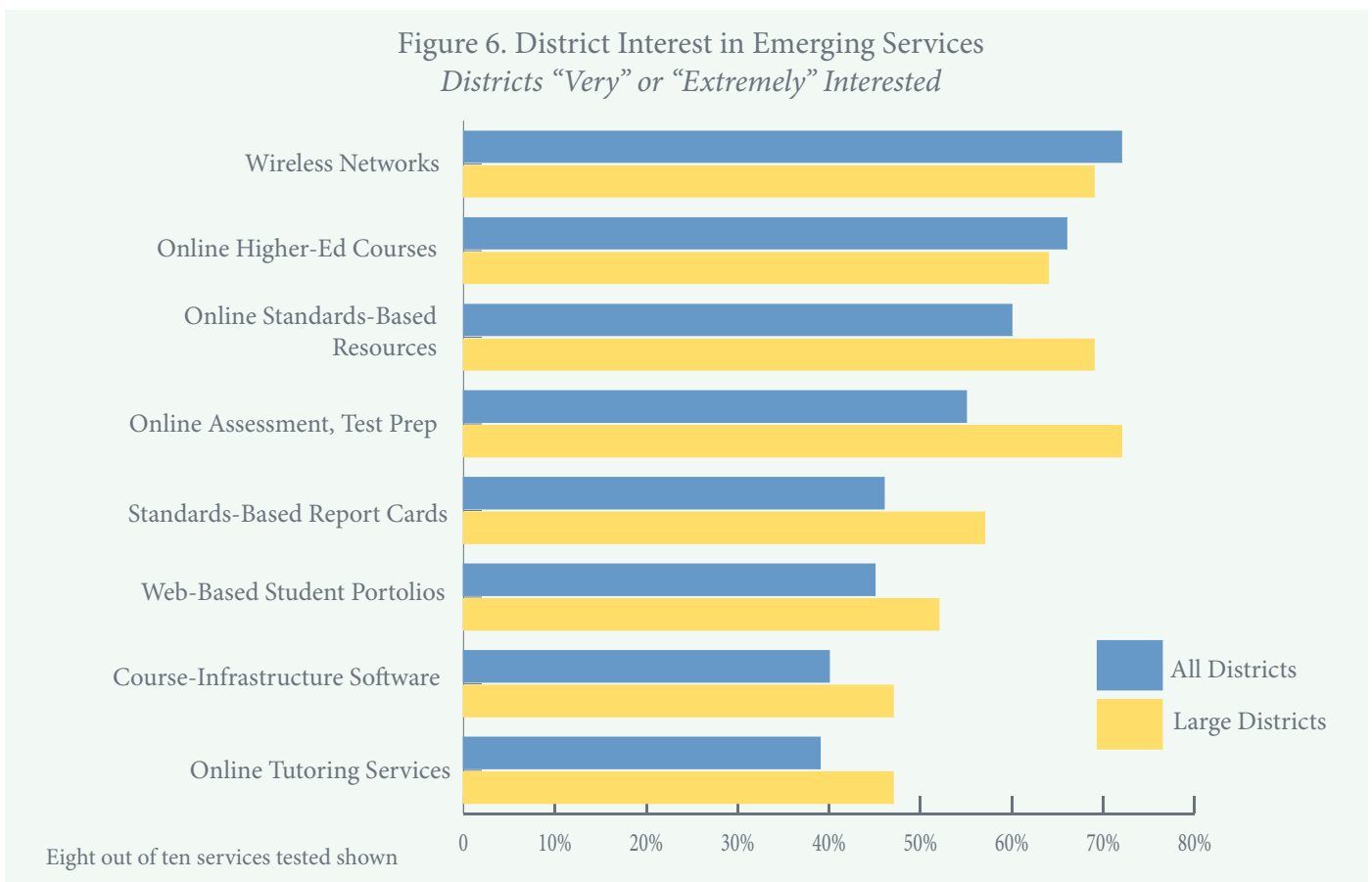
Figure 5. District Attitude Toward Innovation
Districts Compared to Other Districts

Attitudinally Slow to
Adopt Innovation

Attitudinally Innovative
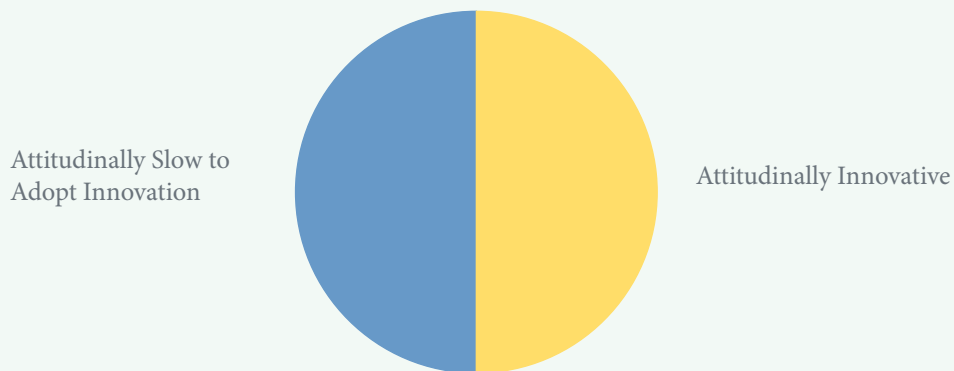
The attitudinally innovative districts are relatively and significantly more innovative than other districts. Innovative districts expressed a three out of five or higher level of interest in the ten emerging service types tested (Figure 6).

There is a keen interest in new technologies that can improve the educational experience. As technology becomes a part of the everyday school experience, interest in virtually all technological concepts increases.

Generally, progress has been made in many schools and some technologies are now considered essentials in classrooms. Once districts adopt new technologies, their interest in additional technology increases. When district technology decision makers were recently asked in a telephone survey about their district's level of interest in a random assortment of ten online emerging services, they showed interest in all areas.[5]

Figure 6. District Interest in Emerging Services
Districts "Very" or "Extremely" Interested

Eight out of ten services tested shown

It's important to note that interest in new services is far from hypothetical. Technologies in place today are fueling greater demand for more emerging technologies in the school environment. The high levels of interest in new concepts and services[6] show that educators are interested in reengineering educational approaches and are thinking outside the box.

How Symbiosis Fosters Change. As a school or district's interest in technology and innovation grows, there is direct and widespread impact on the communities around it. In essence, educators push their communities to raise the technology bar.

Tech equity and other programs that schools provide to increase home access to technology directly impact their community's technology level. By providing training and access to technology, many schools push their communities beyond their current means.

- Nearly three out of four (71%) districts consider tech equity to be either an "extremely" or "very" important issue in their communities.[7]
- Nearly three out of four (71%) has implemented one or more equity programs.[8]

As Figure 7 shows, these programs often include not only training, but also distribution of equipment to qualified families, especially in the nation's larger districts.[9]

Figure 7. District Tech-Equity Programs
Districts That Provide
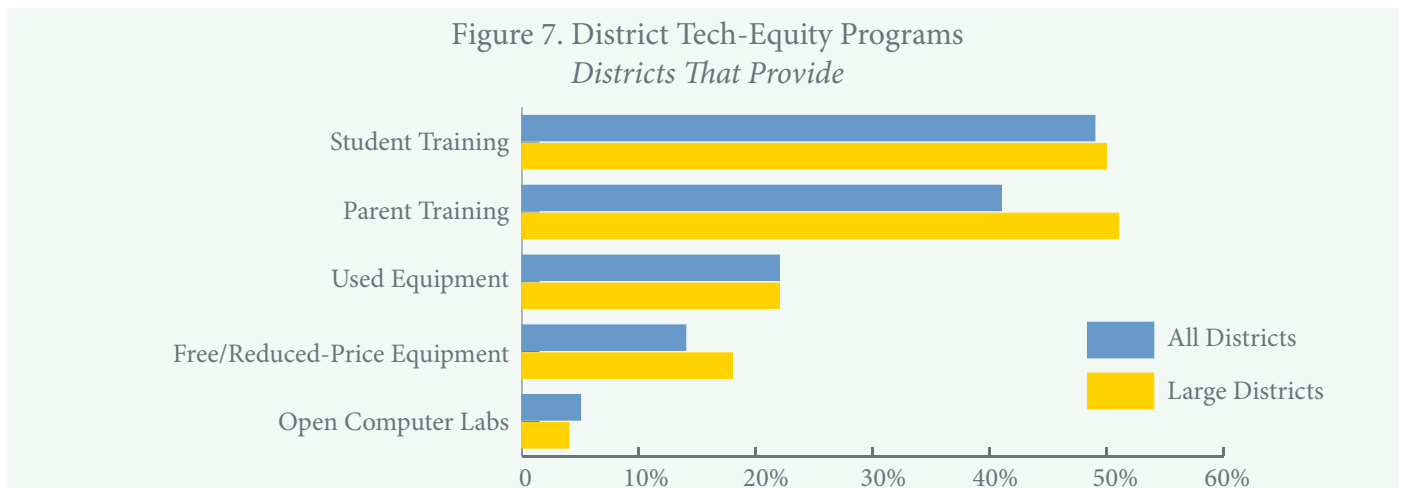
Through the tech-driven distribution process, teachers and families are exposed to innovative approaches to education and new ways to use technology.

Schools impact technology adoption and technology behaviors at home in both kids and their parents.

Schools prove to be key drivers in a variety of behaviors and decisions made by families. Schools are prompting many families to buy or upgrade their access to innovation. In a recent online survey of more than 1,300 parents (see Methodology for details), results show that home technology behavior is being pushed by their school's technology level.

- More than four in ten parents (44%) say that educational benefits will be key to their decision to buy any kind of wireless device for their children.[10]
- One in five broadband users (20%) say their child's education was a key factor in their decision to go high-speed.[11]
- More than one-third of the families who do not yet have broadband access (34%) say their children's education will be a key factor in their decision to upgrade.[12]

Once families acquire technology or media platforms, schools have a profound impact on how technology is used by kids at home. In a recent online survey of more than 2,000 children (see Methodology for details), more than two-thirds state that schools impact their technology use and behaviors at home.

- Nearly seven out of ten kids ages 6–17 years say their school has influenced their home use of the Internet in one or more ways and not just for homework.[13]

It may not be all that surprising that schools have this level of influence on the children that attend them, but schools are also significantly impacting the behaviors of parents. Because schools push their children, parents too are pushed to increase their technology sophistication.

- More than one in five parents (22%) report that their child's school has influenced their own home Internet behavior in one or more ways.[14]
- More than one in ten parents (12%) say their child's school influenced either themselves or other family members to go online for the first time, including more than one in five (21%) online Hispanics.[15]
- More than one in ten parents (11%) say that their child's school has caused them to explore more of the medium than they otherwise would.[16]

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The school-to-community relationship is more symbiotic than unidirectional. While schools impact their communities, the reverse is also apparent. Parents and other community members are increasingly powerful agents for change in schools.

Parents and community members are a driving force behind the desire for more technology in schools. Strong parental influence in decision making is a better predictor of district interest and adoption of innovation than are district size, locale, geographic region, district socioeconomic status, student-to-computer ratio or even district optimism about technology. Districts that report high levels of parental influence also report high levels of adoption of new technologies. Specifically, districts with high parental influence are also:

- Significantly more likely to be buying Internet content and services, using the Internet for many academic subjects and using the medium for lesson planning.[17]
- More likely to be evangelizing technology to every part of the learning community (students, parents, teachers) through aggressive access and training programs.[18]
- Significantly more likely to be interested in every one of ten emerging service concepts (in Figure 6) tested than are districts where parental influence is low.[19]

Educators' optimism for future improvements is bolstered by local community support. The pull to higher technology that communities exert on their schools is expected to increase.

As district leaders look ahead to the future, they are optimistic that the trend to utilize more technology and innovative approaches will continue to unfold. For example, two-thirds of district leaders believe at least 10% of their students will receive a substantial portion of their instruction online within the next three years.[20] This optimism is based on a relatively solid foundation of growing support from local communities.

- By nearly a three-to-one margin (53%-18%), districts say there is more support in their communities for dedicating financial resources to instructional technology than there was three years ago.[21]
- By a similar margin (40%-13%), districts say there is more support for computer purchases outside school budgets among parents groups than three years ago.[22]
- By more than a two-to-one margin (42%-20%), districts say there is even increased community support for purchases of technology for administrative use than in the recent past.[23]

The PUSH ⇔ PULL Effect: A symbiotic relationship between schools and their communities creates a spiral of innovation that drives technology change.

The two effects, pushing by schools and pulling by communities, creates a two-way flow and push for technology adoption. When either schools or communities adopt a new technology, the drive for innovation is stimulated in the other environment. The constant push-pull between schools and their communities creates continuous progress toward change for both. As a result, many districts find themselves in a circular updraft of innovation.

A New Player Leads Education: the Education Influencer. In the nation's more innovative districts, technology decision making is strikingly decentralized.

The conventional wisdom is that school-market decision making has become an increasingly bureaucratic and centralized process. Contrary to this, districts that are most interested in new technologies and are actual adopters of advanced innovations show a decentralized process of technology decision making. As Figure 8 shows, early adopter districts are significantly more likely than others to heavily involve building-level personnel such as principals, classroom teachers and their communities in the decision-making process.

Figure 8. Building-Level Decision Influence and Early Adoption of Technologies
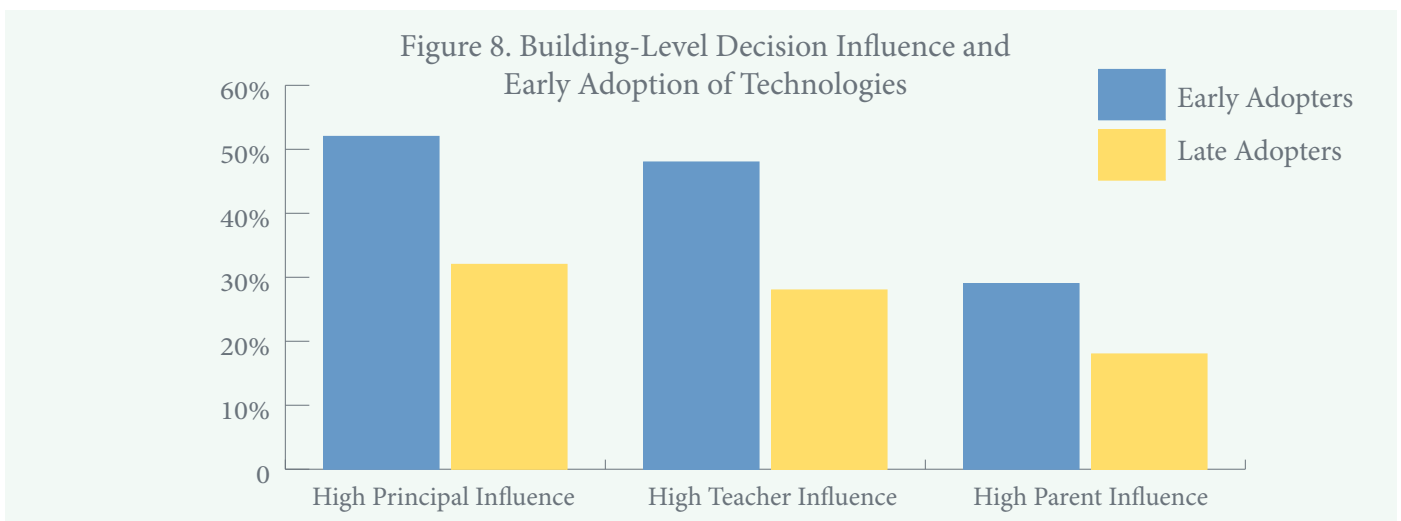
With the pull to innovation exerted by communities (as described in the previous section), the path to product adoption in the school market is not as centralized as commonly thought. The pull created by communities is on the rise and is expected to increase.

- More than four in ten district decision makers (42%) say they expect parents and school boards to be increasingly influential in technology decision making in the years to come.[24]

Influence in decision making for school or education environments defies classification based on title alone. Education Influencers are a psychographic segment, not a demographic one.

Contrary to the long-held belief that only a few people control the purse strings to spending in schools, the people who influence educational spending are a widely diverse group. Today, people who recommend, specify, influence or approve the purchase of technology, educational tools, services or Internet-related products for use in a school environment or organization that supports education have many different roles in education. People involved in educational spending have titles that fall into six groups:

- District-level managers (superintendents, assistant superintendents, technology directors, curriculum directors, professional-development directors, etc.)
- School-level leaders and decision makers (principals, department chairs, library/media specialists, tech coordinators, etc.)
- Classroom teachers
- Policy makers (school board members, legislators, U.S. Department of Education staff, state department of education staff, etc.)
- Higher-education leaders (college/university deans, college/university faculty, college/university administrative staff, etc.)
- Business and community leaders (active parents, active business leaders, nonprofit foundation board or staff members, museum curators or administrators, nonprofit and commercial publishers, researchers, consultants, and developers)

By breaking down the "silo" walls and reaching across the full spectrum of these titles, a powerful force in the educational system, called the Education Influencer, becomes apparent.

With a social and political activist approach, they are the people leading discussions and setting the agenda for their communities.

While education is a large part of their lives, Education Influencers' interests go beyond schools and education. A defining trait of Education Influencers is an extraordinarily high degree of engagement in social and political affairs (Figure 9).

Applying standard measures as defined by NOP World's battery of influence, nearly two-thirds (64%) of Education Influencers are also Influential Americans®. As a result, Education Influencers' strong influence in political and social spheres generates effects far beyond the classroom.

Figure 9. Political Influence
*Activities Engaged in During Past Year*
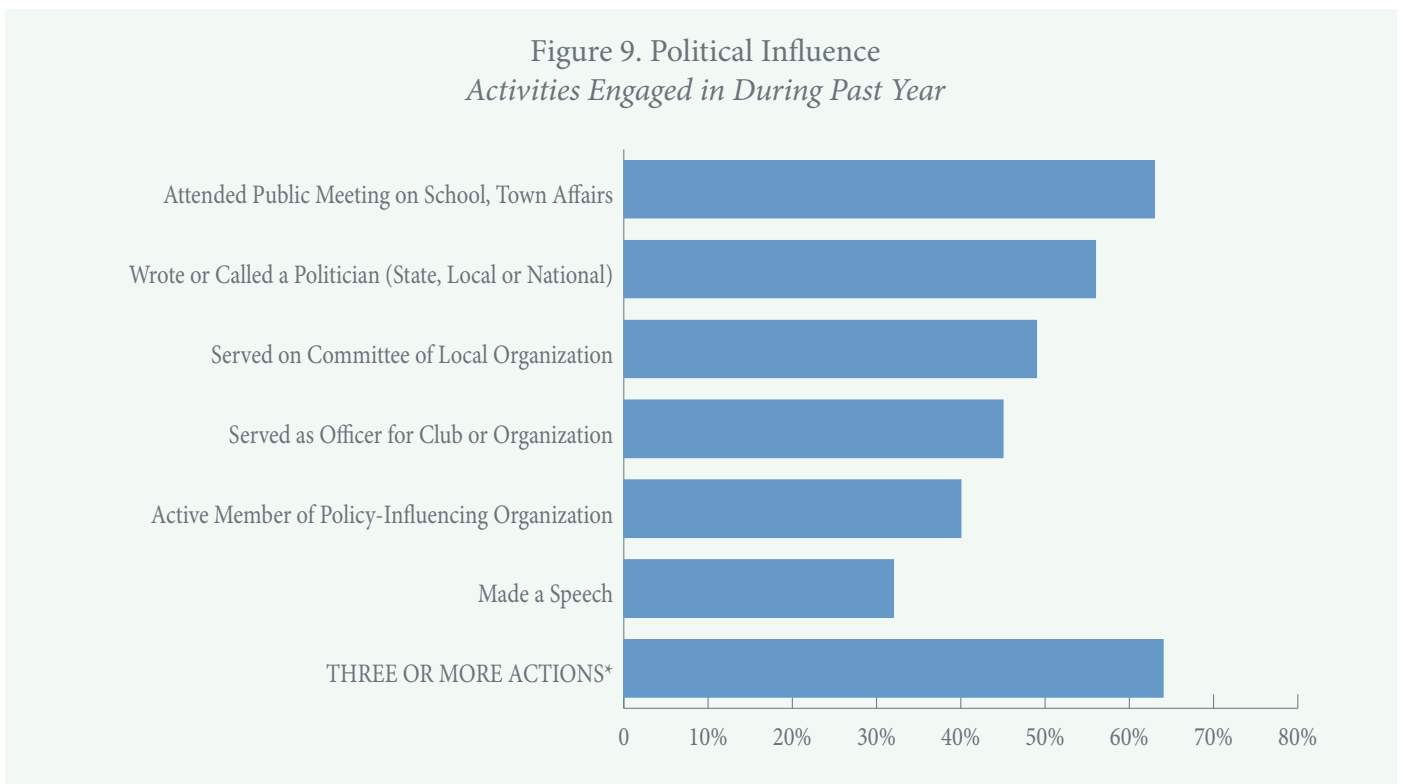
Edfluencers (shorthand for Education Influencers) are informed sources on current issues. They are natural leaders among their friends, colleagues and families. Education Influencers are relied on for advice and counsel in a variety of areas beyond education.

- More than nine in ten Edfluencers (94%) report that their friends and colleagues regularly seek them for advice and opinions.

Education Influencers are knowledge seekers on a lifelong quest to learn new things. They continually seek new information and new experiences.

In addition to their commitment to social and political pursuits, Education Influencers regularly engage in a variety of lifelong learning or self-improvement activities. Education Influencers don't merely tell us they are interested in novelty and new experiences; it's a credo they live by. As Figure 10 shows, more than eight in ten (82%) are certifiable lifelong learners, engaged in three or more activities that indicate a commitment to continuing personal and professional education.

Figure 10. Lifelong-Learning Activities
Activities Engaged in During Past Year
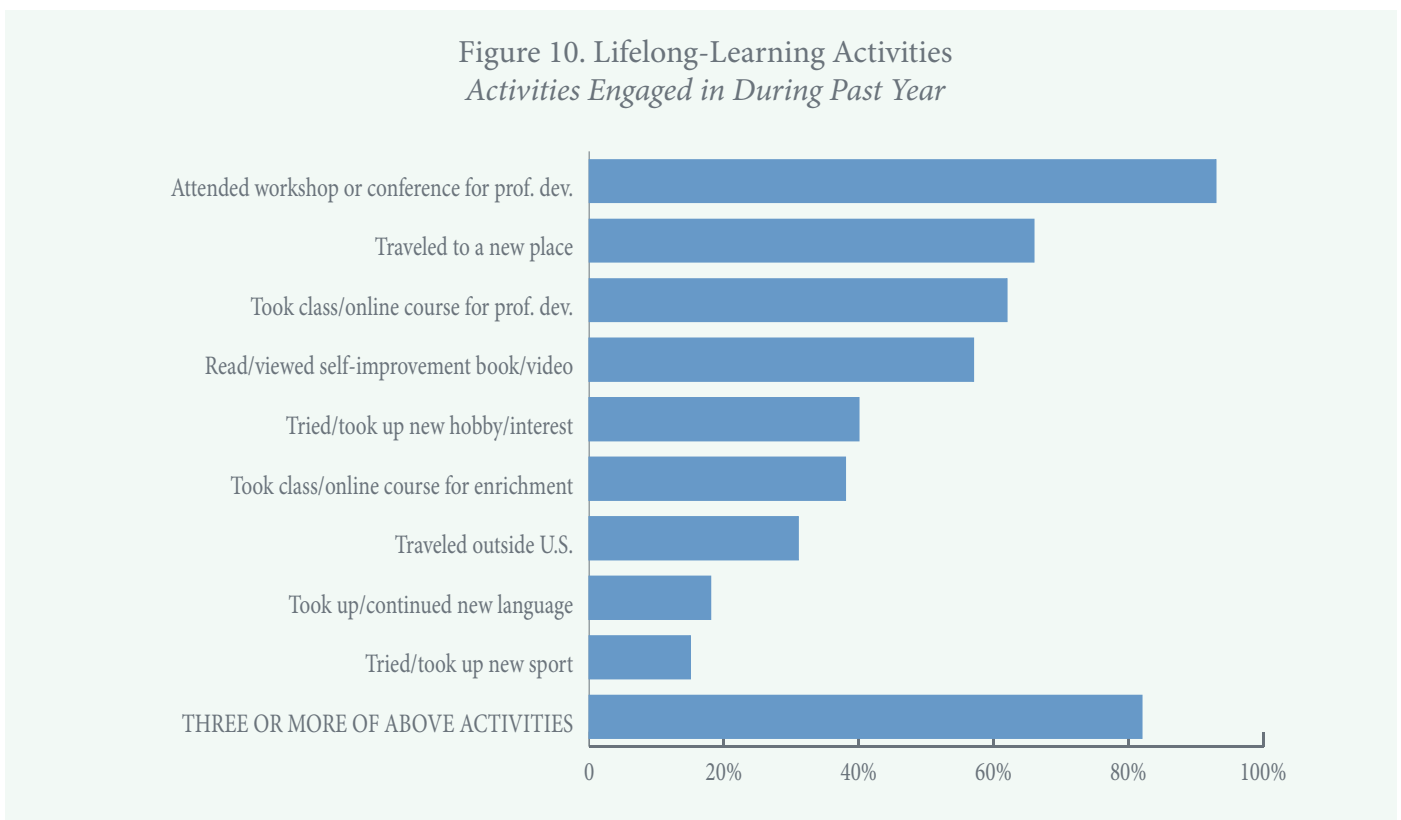
Education Influencers' love of learning is compounded by their desire to seek new experiences. As explorers of the cutting edge, they are quick to break with convention and are the first to try new things.

- Nearly nine of out ten Edfluencers (88%) stay on the cutting edge through their keen interest in new science and technology.
- More than seven in ten (71%) say they are often the first among family or friends to try new things.
- Nearly two-thirds (64%) say they often break with tradition or conventional wisdom.

Education Influencers are knowledge seekers on a lifelong quest to learn new things. They continually seek new information and new experiences.

Edfluencers have much more in common with each other than with any specific demographic or occupational category. Demographically, Education Influencers diverge significantly from the general population in a variety of ways:

- 64% of Edfluencers are women; only 36% are men.
- Their average age is 49, with 61% between the ages of 35 and 54.
- 72% of Education Influencers are married; only 12% are divorced, separated, or widowed.
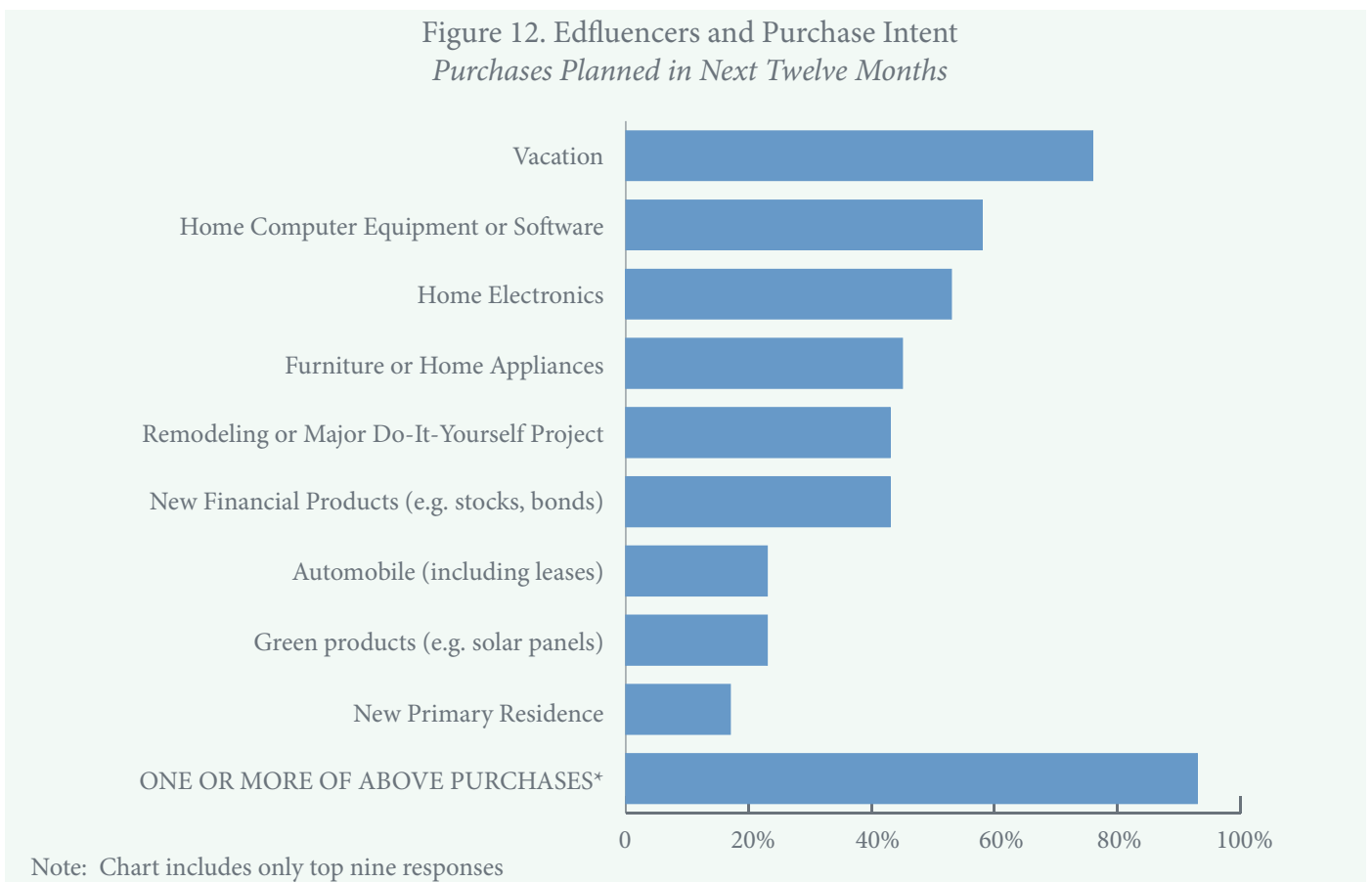- Only 36% have children in grades K–12 in their households.

The most striking divergence of Education Influencers from the general population is in income. As Figure 11 shows, the median household income of an Education Influencer is $90,000. Across roles and occupations, Education Influencers share similar household incomes. Even the lowest-income influencer group—classroom teachers—has a household income that is well above average (it's important to note that in many cases, teacher salaries are second incomes for a household).

Figure 11. Edfluencer Median Household Income
By Influencer Title, in Thousands
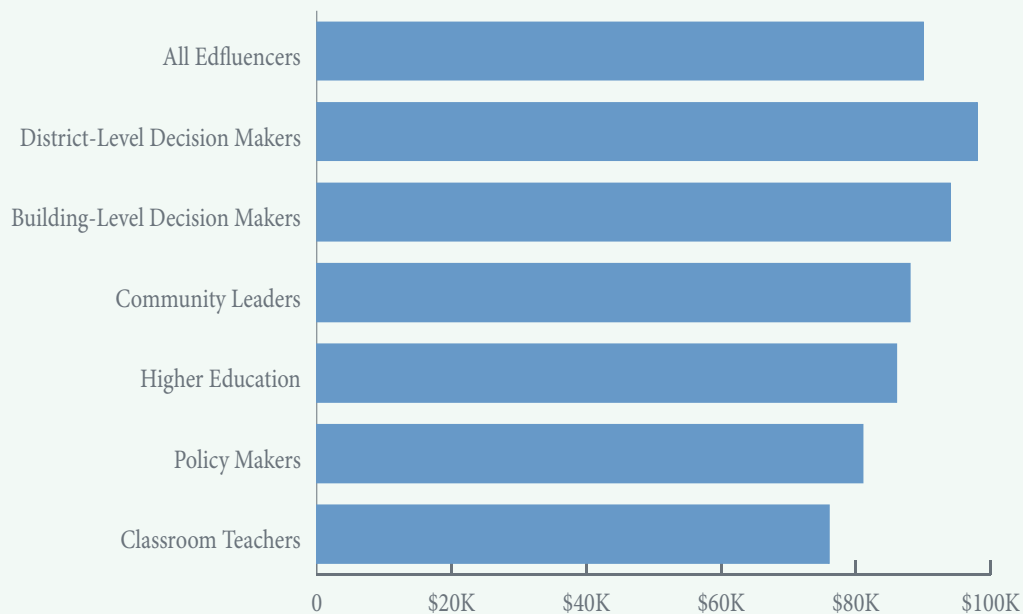
It's never a dull moment in the Education Influencers household. They are constantly engaging in new projects and planning major purchases.

Their purchasing plans for themselves and their families in the coming year are unusually aggressive. As Figure 12 shows, more than nine out of ten Education Influencers plan to make one or more potentially major purchases in the next twelve months.

Figure 12. Edfluencers and Purchase Intent
Purchases Planned in Next Twelve Months

Note: Chart includes only top nine responses

One telling example of how extraordinary Edfluencers are: 31% of Education Influencers have traveled outside the United States in the past year, while only 21% of all Americans even have a passport.[25]

Their passion for being informed influences the way they investigate the products they buy. Education Influencers are avid seekers of product information online.

The aggressiveness with which Education Influencers approach life is generally mirrored in their approach to new products. Education Influencers are constantly on the lookout for new products and ideas. Their online product-searching behavior patterns approach feverish levels.

Figure 13. Online Product-Searching Behavior
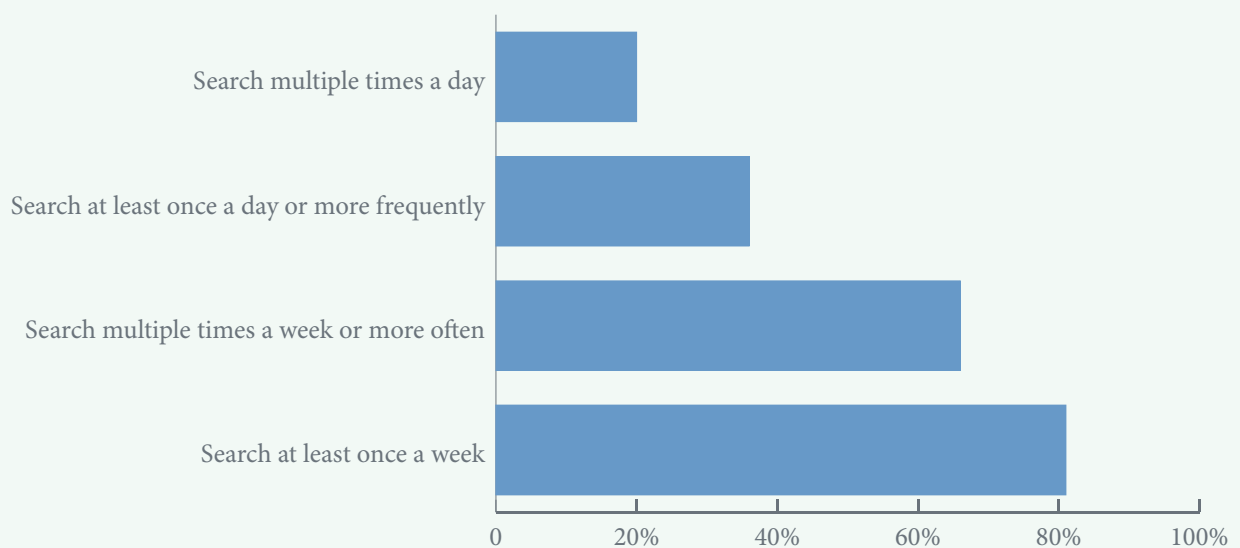
While more than 80% of Edfluencers search for product information online at least once a week; one out of five search for product information multiple times a day.

As avid information seekers, Education Influencers have information needs that have gone unmet. Today, there is no single media source that fulfills their educational-information needs.

The information sources Education Influencers use are as diverse as the Education Influencer population. When asked about their sources of ideas and information for use in an educational environment, it is striking that they use many sources. No single source breaks away from the others as the overwhelming "go-to source" Education Influencers rely on the most.

Figure 14. Sources of Information
*To Learn About New Products and Ideas for Use in a School Environment*
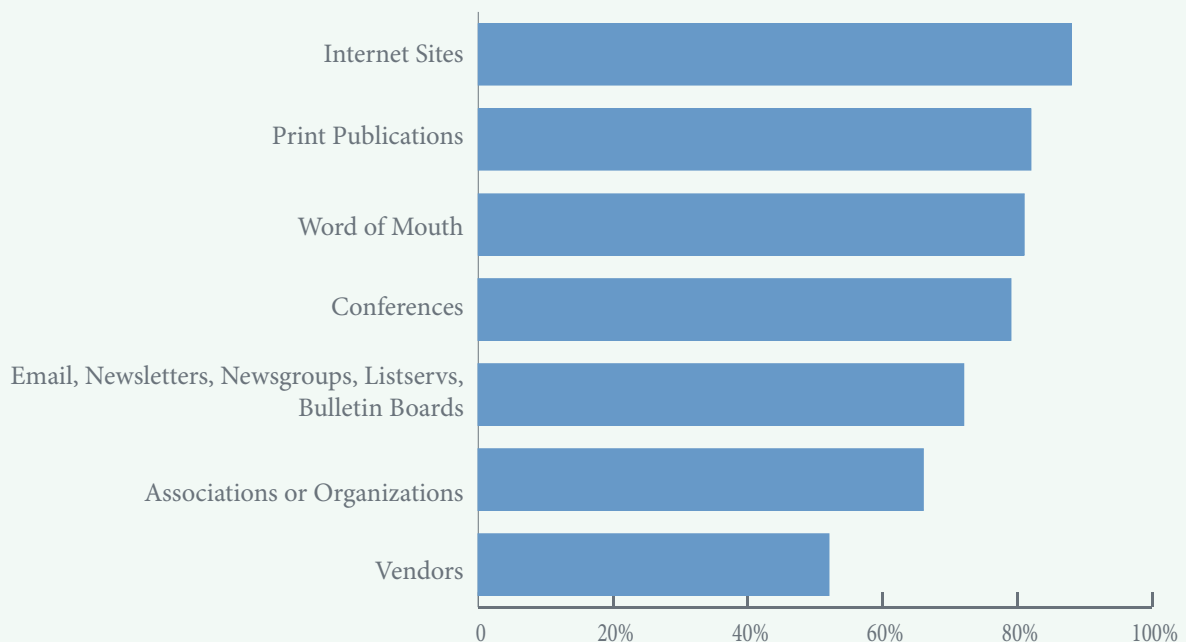
While Web sites are mentioned most often, the heavy mix of word of mouth and word-of-mouth proxies (such as email, newsgroups, etc.) reinforces the significant behavioral tendency of Education Influencers to look for and share information with other people.

There is no single source that Education Influencers rely on the most.

There are no specific information sources (specific sites, specific publications) that drive the Education Influencers' decision-making process today. As Figure 15 shows, less than one-third (29%) of all Education Influencers can identify a single information source they rely on most for ideas and product information when it comes to education.

Figure 15. Reliance on a Single Source
*For Ideas and Product Information Regarding Education*
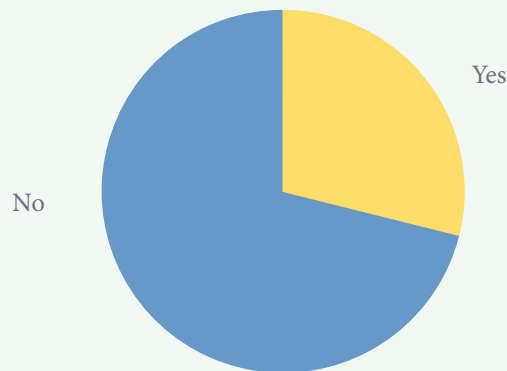
While 29% of Edfluencers state they have a single source, there is no consensus on what that source is.   No specific Web site or publication captures as much as 4% of mentions (i.e., "most relied on").

There is a need and desire for an educational thought-leader source.

The reason Education Influencers use so many varied sources may be a result of not having any other choice. A great majority say their information needs are not being met by any one source (a single publication or Web site) that they rely on more than others for information. This state of affairs is not desirable, in the eyes of Edfluencers. More than eight in ten (84%) Education Influencers without a "most reliable" source of information say they have interest in finding one. More than half (55%) have a strong interest in finding a source to rely on.

Figure 16. Interest in Single Information Source
Among Those Without a Single Source
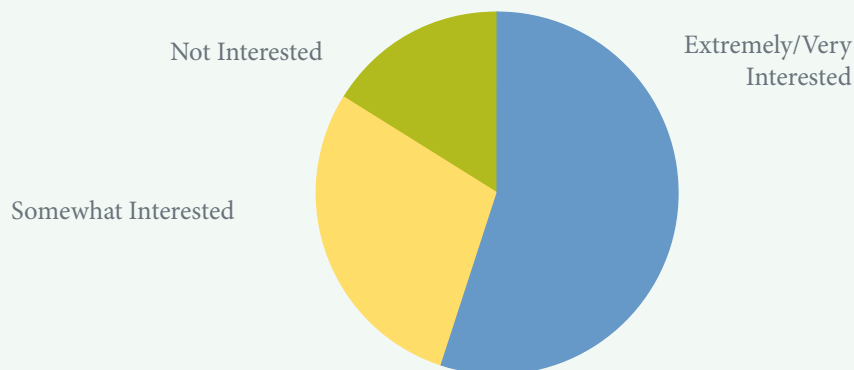
Impact of the Education Influencer. The portrait of an Education Influencer is one of substantial power. As a group, it is a population that in many ways makes standard "influencers" look meek.

Edfluencers make direct product recommendations or give advice to an extraordinary number of individuals every week. Many of them are in a position to influence hundreds, even thousands, of others.   In a typical week, Education Influencers make product recommendations or give advice to 20 people (median = 20 people per week).

Education Influencers are at the center of conversations in their communities. They make recommendations to or give advice to a wide variety of people:

- 87% say that teachers are among the people they advise.
- 75% make recommendations or advise educational administrators weekly.
- 57% say they recommend products or give advice to students.
- 55% recommend or advise parents as part of their week.
- 13% say they make recommendations to corporate decision makers every week.

The 20 individuals whom an Education Influencer makes direct recommendations to every week can easily turn into many times that number who are influenced by their recommendations.

- Each teacher who makes decisions based on an Edfluencer's recommendations potentially impacts between 20 and 100 consumer families (depending on grade level).
- The average administrator acting on an Edfluencer's recommendations may impact hundreds of teachers (as well as thousands of consumer families).
- Even recommendations to parents, if followed, are likely to impact an average of four consumers each.

Education Influencers are heavily involved in the decision-making process that allocates billions of dollars every year.

Another way of looking at the power of Education Influencers is with respect to their role in school purchasing of different types of products. As Figure 17 shows, the average Education Influencer plays a significant role in approving, recommending, or influencing the purchase of virtually every type of product used in the nation's schools.

Figure 17. Role in School Purchasing
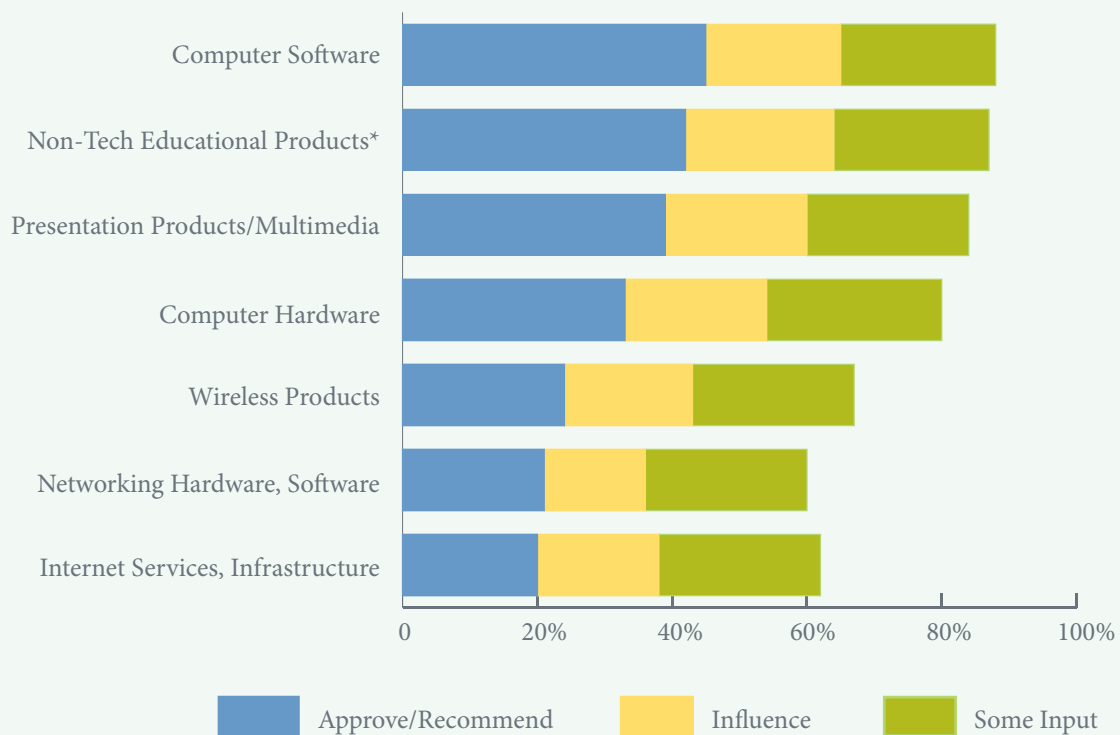
*Non-Tech Educational Products include items such as textbooks, kits, school supplies and games.

Education Influencers decisions and recommendations impact tens of thousands of students and families per Influencer each year.

Between the numbers of direct recommendations they make every week and the level of influence they exert on school purchasing, it's not surprising that Education Influencers tell us that the number of students per year impacted by their decisions and recommendations is quite high. Specifically:

- The average number of students impacted yearly by an Edfluencer's decisions or recommendations is 84,000 (and by extension, their families are affected, too).
- Nearly half (45%) of all Education Influencers say their recommendations and decisions impact more than 1,000 students a year.
- Nearly one in ten (7%) Edfluencers impact more than 100,000 students per year.
- One in fifty makes recommendations and decisions that impact more than 1 million students each year.

Figure 18. Scope of Edfluencers' Impact
Number of Students Impacted per Year

1,000–100,000 Students

Under 1,000 Students

100,001–1 Million Students

1 Million+ Students
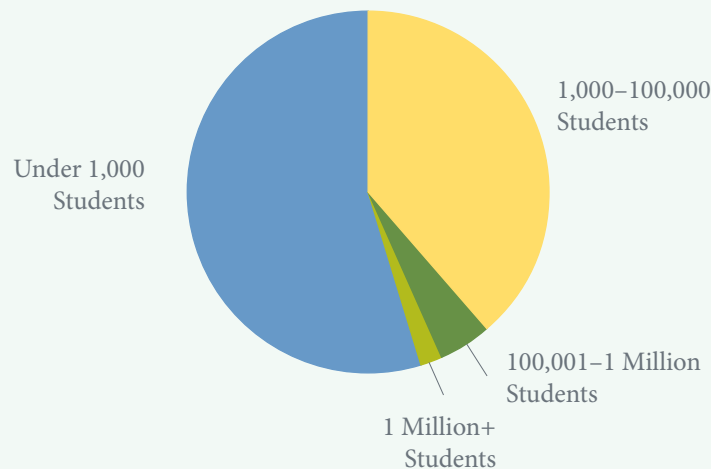
The heavy use of the Internet as a communication tool by Education Influencers generates viral effects that exponentially increase their impact on an even larger and more diverse audience.

Until now, heavy use of the Internet for online communication has been an activity that's been more closely associated with teens and young adults. As Figure 19 shows, Education Influencers, at an average age of 49, exceed their young counterparts in nearly every measure of online communication.   Particularly notable is the frequency with which Edfluencers post on bulletin boards, given the relatively wide public circulation many of these vehicles enjoy.

Figure 19. Edfluencers and Online Communication
Percent Using
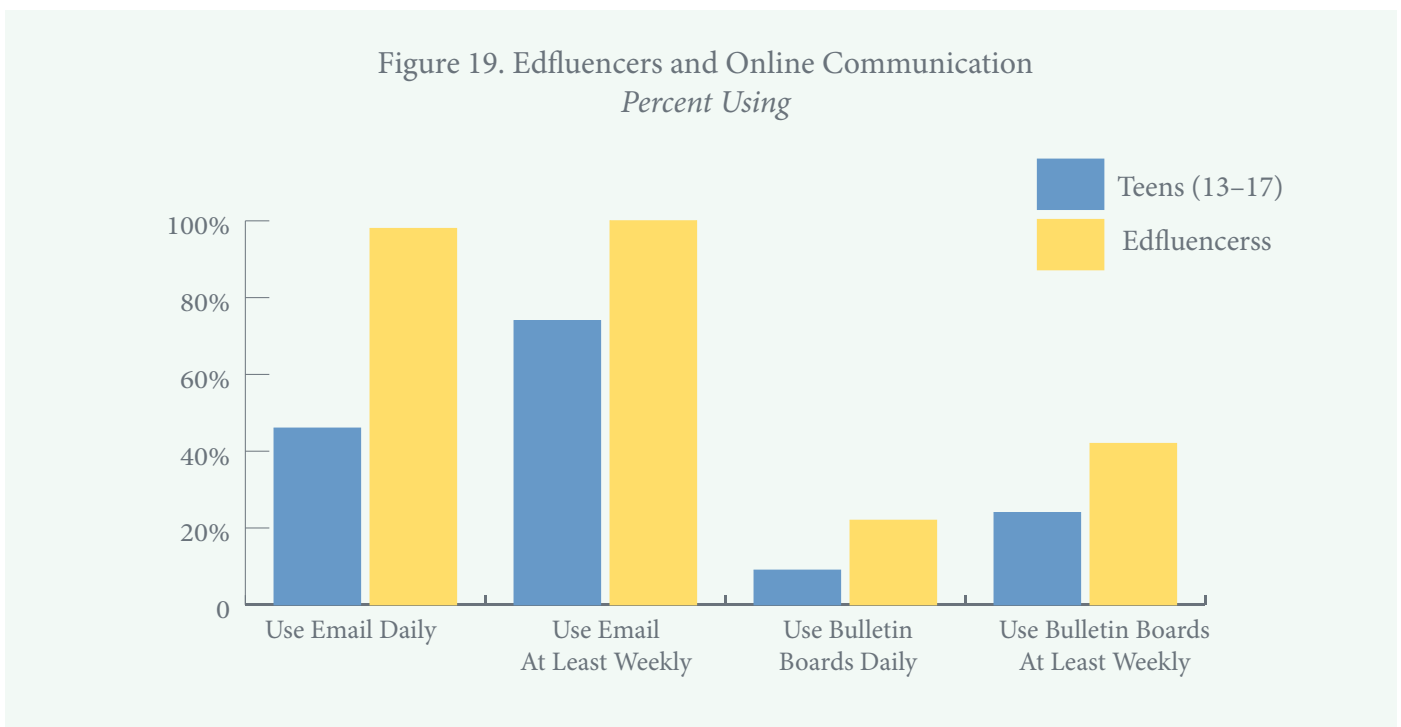
Given the prominent role that word of mouth and Internet-based word-of-mouth proxies play in the spread of educational ideas and product information, Education Influencers' online communication grants them a platform for even greater influence. In today's viral environment online, it is not unreasonable for a single well-written piece of mail about a product or new idea to eventually be forwarded to thousands or even hundreds of thousands of other individuals online. A single bulletin-board posting in a popular forum can get even wider circulation.

Closing Comments: Looking into the future.

As intelligence about Education Influencers circulates and is built upon by groups with access to these change agents, we expect publications and Web sites to develop that do a much better job of catering to Edfluencer needs than those in the current landscape. As this occurs, we expect organizations that participate in this development to have significant advantages over those who sit on the sidelines, unaware of the new fluidity in education or its myriad impacts on the home.

School professionals and their supporters have a long history of remembering those who helped them, who were there for them on the ground floor. In our opinion, we're at the ground floor of a new era in the K–12 education system, driven by the idealism and tenacity of an emerging class of educators, education professionals and community leaders. They should be encouraged and aided by every entity with an interest in changing our nation's schools and society for the better.

Inside the Research

In order to generate the profile of Education Influencers and to quantify the scope of their influence, Grunwald Associates conducted a survey of Edfluencers on behalf of Edutopia magazine and The George Lucas Educational Foundation. A random sample of existing GLEF subscribers who had previously indicated that they are influencers (i.e., that they "recommend, specify, influence or approve the purchase of technology, educational tools, services or Internet-related products for use in a school environment or organization that supports education") were invited by email to participate in an online survey. There was an education-spending influencer re-screener in the instrument (identical to the above influencer description), and only respondents who affirmed an influencer role in educational spending were included in our results. To determine social and political influence, NOP World gave The George Lucas Educational Foundation permission to use its Influential Americans' battery in the subscriber survey.

A total of 751 completed responses were received, after which the instrument was closed. Results were then weighted by occupation to reflect the existing GLEF subscriber base. Specifically, 61% of the respondents are district or school-level administrators or policy makers, 20% are classroom teachers, 10% are higher-education administrators, faculty or students, 6% are business or community leaders and 3% are state or national policy makers. Respondents were given 31 different occupational categories to choose from, which were then grouped into the occupational groups above.

In addition, three existing Grunwald Associates survey databases were used to generate the findings discussed. In the 2003 Grunwald survey referenced, Schools and the Internet, 811 district technology leaders (i.e., district technology directors, coordinators, CTOs, or CIOs), including those in 90 of the 100 largest districts, were interviewed for 25–45 minutes by phone. Results were weighted by geography and district size to ensure a representative sample.

In the 2004 Grunwald Associates instrument referenced, Digital Leadership Divide (a joint research project with the Consortium for School Networking), 455 district decision makers, including superintendents, assistant superintendents, directors of instructional technology, chief technology officers, and administrators of management-information systems, participated in a survey that was conducted online. Again, results were weighted by geography and district size to ensure a representative sample.

In "Schools and the Consumer Market," we drew on another Grunwald Associates database developed from an online survey, Children, Families, and the Internet, of 1,300+ parents and more than 2,000 children ages 6–17, weighted by age, gender, income, geographic region, and ethnicity.

FOOTNOTES

[1] Grunwald Associates and Consortium for School Networking, Digital Leadership Divide, 2004

[2] Grunwald Associates and Consortium for School Networking, Digital Leadership Divide, 2004

[3] Grunwald Associates and Consortium for School Networking, Digital Leadership Divide, 2004

[4] Grunwald Associates, Schools and the Internet, 2003

[5] Grunwald Associates, Schools and the Internet, 2003

[6] Grunwald Associates, Schools and the Internet, 2003

[7] Grunwald Associates, Schools and the Internet, 2003

[8] Grunwald Associates, Schools and the Internet, 2003

[9] Grunwald Associates, Schools and the Internet, 2003

[10] Grunwald Associates, Children, Families, and the Internet, 2004

[11] Grunwald Associates, Children, Families, and the Internet, 2004

[12] Grunwald Associates, Children, Families, and the Internet, 2004

[13] Grunwald Associates, Children, Families, and the Internet, 2004

[14] Grunwald Associates, Children, Families, and the Internet, 2004

[15] Grunwald Associates, Children, Families, and the Internet, 2004

[16] Grunwald Associates, Children, Families, and the Internet, 2004

[17] Grunwald Associates, Schools and the Internet, 2003

[18] Grunwald Associates, Schools and the Internet, 2003

[19] Grunwald Associates, Schools and the Internet, 2003

[20] Grunwald Associates, Schools and the Internet, 2003

[21] Grunwald Associates and Consortium for School Networking, Digital Leadership Divide, 2004

[22] Grunwald Associates and Consortium for School Networking, Digital Leadership Divide, 2004

[23] Grunwald Associates and Consortium for School Networking, Digital Leadership Divide, 2004

[24] Grunwald Associates, Schools and the Internet, 2003

[25] U.S. State Department, 2003