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Lifelong Learning and Technology

A large majority of Americans seek extra knowledge for personal and work-related reasons. Digital technology plays a notable role in these knowledge pursuits, but place-based learning remains vital to many and differences in education and income are a hallmark of people's learning activities

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A large majority of Americans seek extra knowledge for personal and work-related reasons. Digital technology plays a notable role in these knowledge pursuits, but place-based learning remains vital to many and differences in education and income are a hallmark of people's learning activities

Most Americans feel they are lifelong learners, whether that means gathering knowledge for “do it yourself” projects, reading up on a personal interest or improving their job skills. For the most part, these learning activities occur in traditional places – at home, work, conferences or community institutions such as government agencies or libraries. The internet is also an important tool for many adults in the process of lifelong learning.

A new Pew Research Center survey shows the extent to which America is a nation of ongoing learners:

- 73% of adults consider themselves lifelong learners.
- 74% of adults are what we call personal learners – that is, they have participated in at least one of a number of possible activities in the past 12 months to advance their knowledge about something that personally interests them. These activities include reading, taking courses or attending meetings or events tied to learning more about their personal interests.
- 63% of those who are working (or 36% of all adults) are what we call professional learners – that is, they have taken a course or gotten additional training in the past 12 months to improve their job skills or expertise connected to career advancement.

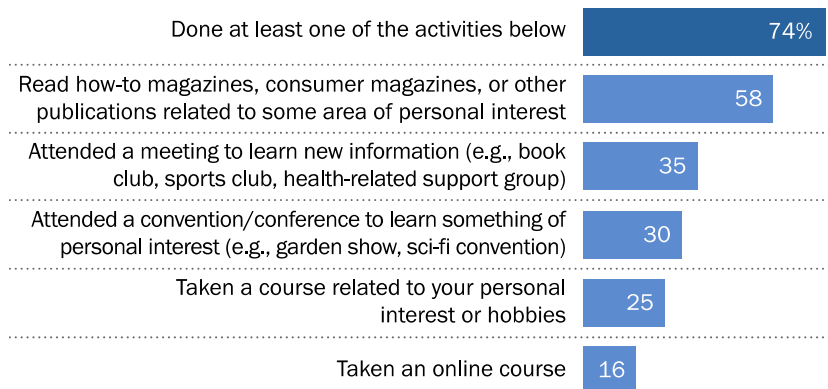
These learning activities take place in a variety of locations. The internet is often linked to a variety of learning pursuits. However, it is still the case that more learners pursue knowledge in physical settings than choose to seek it online.

- By an 81% to 52% margin, personal learners are more likely to cite a locale such as a high school, place of worship or library as the site at which personal learning takes place than they are to cite the internet.
- By a similar margin (75% to 55%), professional learners are more likely to say their professional training took place at a work-related venue than on the internet.

Majorities of Americans seek out learning activities in their personal and work lives

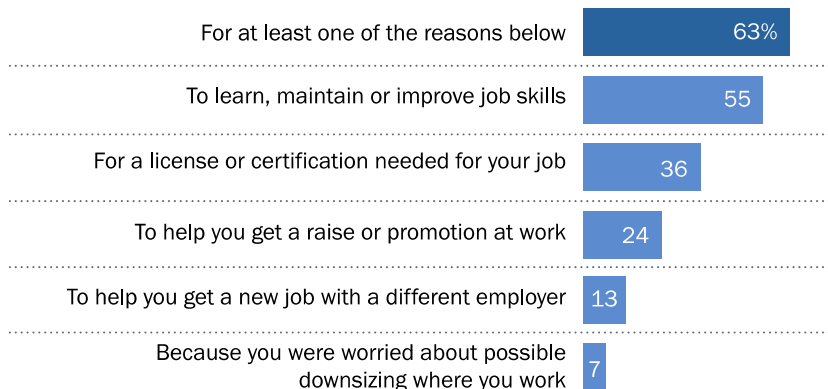
PERSONAL LEARNERS: 74% of adults

Percent of adults who say that in the past 12 months they have ...



PROFESSIONAL LEARNERS: 63% of workers (36% of all adults)

*Percent of those who work full time or part time who say in the past 12 months they have **taken a class or gotten extra training ...***



Note: 58% of adults hold full- or part-time jobs

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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People cite several reasons for their interest in additional learning

Those who pursued learning for personal or professional reasons in the past 12 months say there are a number of reasons they took the plunge. Personal learners say they sought to strengthen their knowledge and skills for a mixture of individual and altruistic reasons:

- 80% of personal learners say they pursued knowledge in an area of personal interest because they wanted to learn something that would help them make their life more interesting and full.
- 64% say they wanted to learn something that would allow them to help others more effectively.
- 60% say they had some extra time on their hands to pursue their interests.
- 36% say they wanted to turn a hobby into something that generates income.
- 33% say they wanted to learn things that would help them keep up with the schoolwork of their children, grandchildren or other kids in their lives.

For workers who took a course or got extra training in the past 12 months, their reasons for wanting doing so ranged from career growth to job insecurity:

- 55% of full- or part-time workers say they participated in work or career learning to maintain or improve their job skills. That amounts to 87% of professional learners who cited this as the reason they wanted to improve their skills.
- 36% of all workers say they did such learning in order to get a license or certification they needed for their job. That comes out to 57% of professional learners who cited this reason.
- 24% of all workers say they wanted to upgrade their skills to help get a raise or promotion at work. That amounts to 39% of professional learners who cited this rationale.
- 13% of the full- and part-time workers say they were hoping to get a new job with a different employer. That amounts to 21% of professional learners who gave this reason.
- 7% of all workers say they were worried about possible downsizing where they currently work. That comes to 12% of professional learners who gave this reason.

People say they get a variety of benefits from personal and professional learning

Asked about the impact of these learning activities, many personal and professional learners cite a variety of benefits. For the 74% of the population who pursued personal learning in the past 12 months, the rewards often tie to psychological and social benefits:

- 87% of personal learners say their activities helped them feel more capable and well rounded.
- 69% say their learning opened up new perspectives about their lives.
- 64% say their learning helped them make new friends.
- 58% say it made them feel more connected to their local community.
- 43% say it prompted them to get more involved in volunteer opportunities.

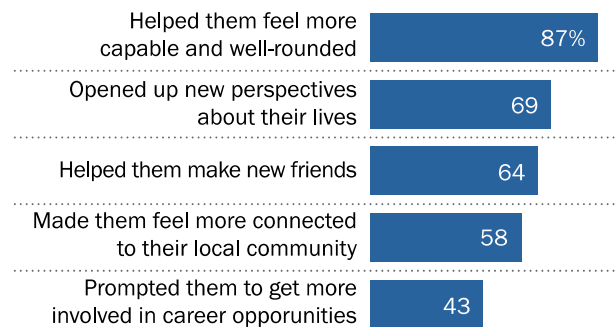
When it comes to the 63% of workers who are professional learners:

- 65% say their learning in the past 12 months expanded their professional network.
- 47% say their extra training helped them advance within their current company.
- 29% say it enabled them to find a new job with their current employer or a new one.
- 27% say it helped them consider a different career path.

Recent educational experiences have paid off in key ways for some learners

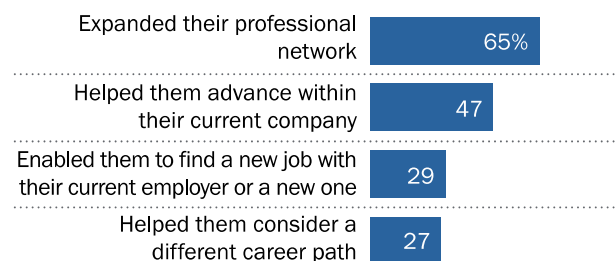
PERSONAL LEARNERS

Among adults who pursued personal learning activities, percent who say their learning ...



PROFESSIONAL LEARNERS

Among adults who pursued professional learning activities, percent who say their learning ...



Note: Personal learners = 74% of adults who participated in some kind of personal enrichment activities in the past 12 months

Professional learners = 63% of full- and part-time workers or 36% of all adults. These learners took a course or got training in the past 12 months for job-related pursuits.

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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Those with more education and higher incomes are more likely to engage in lifelong learning

There are broad patterns associated with personal and professional learning related to socio-economic class, people's access to technology, the kinds of jobs they have, their learning outlooks, and their racial and ethnic backgrounds. As a rule, those adults with more education, household incomes and internet-connecting technologies are more likely to be participants in today's educational ecosystem and to use information technology to navigate the world.

These findings offer a cautionary note to digital technology enthusiasts who believe that the internet and other tools will automatically democratize education and access to knowledge. The survey clearly shows that information technology plays a role for many as they learn things that are personally or professionally helpful. Still, those who already have high levels of education and easy access to technology are the most likely to take advantage of the internet. For significant minorities of Americans with less education and lower incomes, the internet is more on the periphery of their learning activities. Fewer of the people in those groups are professional or personal learners, and fewer of them use the internet for these purposes. Overall, the internet does not seem to exert as strong a pull toward adult learning among those who are poorer or less educated as it does for those in other groups.

Educational levels: The survey reveals significant differences in the incidence of learning based on adults' levels of education. For *personal learning*, 87% of those with college degrees or more (throughout this report adults with college degrees or more refers to anyone who has at least a bachelor's degree) have done such an activity in the past year, compared with 60% for among

Americans' learning activities are tied to a variety of factors



LEVEL OF EDUCATION

Those with more formal education are more likely than others to pursue learning activities.

HOUSEHOLD INCOME

Those who live in households with more income are more likely than others to be both professional and personal learners.

RACE AND ETHNICITY

African Americans and Hispanics are less likely than whites to have pursued personal learning activities in the past year.

TECHNOLOGY ASSETS

Those who have both home broadband and smartphones are more likely than those with no internet connections or only one connection option to take advantage of learning opportunities.

PERSONAL OUTLOOK

Those who consider themselves lifelong learners and are eager to seek information are more likely than others to pursue personal enrichment activities.

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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those with high school degrees or less. For *professional learning*, about three quarters (72%) of employed adults with at least college degrees have engaged in some sort of job-related training in the past year, while half (49%) of employed adults with high school degrees or less have done this.

The same patterns hold true when looking at use of the internet for learning: Less than half (43%) of those who did not proceed past high school have used the internet for a personal learning activity vs. 58% among those with college degrees or more. Just 40% of employed adults in the high school group who pursue professional learning use the internet for these activities, compared with nearly two-thirds (64%) of those in the college group.

Household income levels: Americans who live in lower-income households are less likely to be personal or professional learners – and they are less likely to use the internet for personal learning. Some 83% of those living in households earning more than \$75,000 are personal learners, compared with 65% of those living in households earning under \$30,000. Similarly, 69% of workers living in households earning more than \$75,000 are professional learners, compared with 49% of workers living in households earning under \$30,000.

Additionally, 44% of those with household incomes under \$30,000 have used the internet for personal learning in the past 12 months, compared with 60% for those in households with incomes above \$75,000 annually. Similar patterns hold for professional learning. Among employed adults who are professional learners, 40% of those living in households with incomes under \$30,000 per year use the internet for professional learning, while 65% of those in households above \$75,000 do.

And relatively well-off workers are twice as likely as those with lower incomes to go to a conference or a convention for job training: 53% of workers with incomes above \$75,000 per year report doing this, while 28% of workers with incomes below \$30,000 annually say the same.

Technology assets: Among those with a smartphone *and* a home broadband connection (just over half the population), 82% have done some personal learning activity in the past year. For the remaining adults (those with just one of these connection devices or neither of them), 64% have done personal learning in the past year.

Technology assets are strongly tied to the likelihood that people engage in personal learning online. Those with multiple access options (that is, a smartphone and home broadband connection) are much more likely to use the internet for most or all of their personal learning – by a 37% to 21% margin – relative to people with one or no access options.

Personal outlook: People’s attitudes toward new information are also tied to the likelihood that people are personal. Those who see themselves as lifelong learners are more likely than others to be personal learners by a 77% to 40% margin. Additionally, those who say they are open to looking for new opportunities to grow are more likely than others to engage in personal learning activities by a 77% to 51% margin.

Race and ethnicity: African Americans and Hispanics are less likely to say they have pursued personal learning activities in the past year by margins that differ significantly from white adults. The differences for professional learning are less pronounced for African Americans, though still substantial for Hispanics. Some 79% of white adults are personal learners, compared with 64% of blacks and 60% of Hispanics. Additionally, 65% of white workers are professional learners, compared with 59% of black workers and 52% of Hispanic workers.

Type of job: Finally, the type of job a person has shapes the likelihood of having had professional training. For instance, four-fifths (83%) of those who work for the government have had some job training in the past year, while half (50%) who work for small businesses have had such training.

Some key new digital platforms and methods of learning are not widely known by the public

The educational ecosystem is expanding dramatically. Still, there is not widespread public awareness of some of the key resources that are becoming available. Noteworthy majorities of Americans say they are “not too” or “not at all” aware of these things:

- [Distance learning](#) - 61% of adults have little or no awareness of this concept.
- [The Khan Academy](#), which provides video lessons for students on key concepts in things such as math, science, the humanities and languages - 79% of adults do not have much awareness of it
- [Massive open online courses](#) (MOOCs) that are now being offered by universities and companies - 80% of adults do not have much awareness of these.
- [Digital badges](#) that can certify if someone has mastered an idea or a skill - 83% of adults do not have much awareness of these.

1. The joy – and urgency – of learning

Two large forces are driving fresh interest in the way people learn and why they learn. The first force is the rise of the internet and its disruptive potential for education, both for the formal purpose of gaining extra training and credentials and for the informal purpose of learning new things in hope of personal life enrichment. The second force is the steady advancement of the “[knowledge economy](#),” in which economic value is increasingly derived from working with sources of knowledge and in which more and more jobs are built around [knowledge workers](#) who use information to “create original knowledge products.”

There is a strong sense that many people feel compelled to keep learning to stay relevant in this changing environment. The Great Recession that began in 2008 was an [especially brutal reckoning for many American workers](#) about their place in a changing economy, the [reliability of their jobs](#), the value of their skills and [education](#), their [place in the class structure of America](#), the [state of the benefits safety net](#), and their prospects for [retirement](#). The recession has prompted much commentary about the “[skill recession](#)” and the role of learning centers both in traditional settings and in cutting-edge digital platforms in helping workers adjust to new economic realities.

Pew Research Center set out to explore these big trends by looking at how Americans learn things for both personal and work-related reasons, why they want to learn things and how they think about the role of learning in their lives.

This new research emerges in a special historic context. When it comes to education and technology, there has never been a shortage of optimism – even hype – about the way new communications methods could transform learning and, eventually, translate into happier and more productive citizens. At the dawn of the era of widespread telephone adoption in 1912, visionaries imagined that the telephone would enable video courses to be delivered over phone lines.¹ In 1922, Thomas Edison prophesied: “I believe that the motion picture is destined to revolutionize our educational system and that in a few years it will supplant largely, if not entirely, the use of textbooks.”² A decade later, radio supporter Benjamin Darrow, wrote a book called “Radio: The Assistant Teacher,” in which he predicted: “The central and dominant aim of education by radio is to bring the world to the classroom, to make universally available the services

¹ Ithiel de Sola Pool, [Forecasting the Telephone: A Retrospective Technology Assessment of the Telephone](#). Norwood, NJ: Ablex Publishing Corporation, 1983, p. 146.

² See “Giddy Prophecies and Commercial Ventures: The History of Educational Media.” Available at: <http://www.uni.edu/fabos/publications/wrongturnch.1-history.pdf>

of the finest teachers, the inspiration of the greatest leaders ... and unfolding world events which through the radio may come as a vibrant and challenging textbook of the air.”³

Then in the 1935, television enthusiasts proclaimed that “we will undoubtedly have lectures of every conceivable kind presented to us right in our homes, when practical television arrives, possibly a year or two off.”⁴ And when the commercial internet was in its infancy, the computer was heralded as the accelerant of “learning by doing” that would greatly improve education,⁵ if not “blow up the school.”⁶

More recently, the proliferation of connected devices and high-speed networks has added new energy to the debate about how technology may change how people learn. In higher education, a number of initiatives have unfolded to open up university courses to a wider audience – sometimes for a fee, sometimes for free. These massive open online courses – or MOOCs – aim to improve the “democratic reach” of education, though MOOCs themselves are not without critics.⁷ Today, a host of free learning resources that extend well beyond MOOCs allow people to explore subjects that once were topics just for the classroom or required access to specialists.

A common theme in contemporary “ed tech” discourse is the equalizing potential of new technology on educational outcomes. Technology can and, in the minds of many, inevitably will open the ivory tower’s doors and unlock the gates to knowledge heretofore reserved only for specialists.

Not so fast – or so says our new national survey which places information and communications technology in the context of how Americans pursue learning in their adult years. The fall 2015 survey of 2,752 adults shows that learning, whether for personal or professional pursuits, is an activity that touches a wide range of Americans in a wide range of contexts. The survey shows that a number of factors shape people’s predilections toward learning in their adult years, that technology is just one of them and, crucially, that technology’s role in learning plays out very differently depending on a person’s socio-economic standing.

The findings sound a cautionary note for enthusiasts who see technology as a catalyst for democratizing education. To the extent that this is true, it applies mainly to those with the educational backgrounds, incomes and technology resources to take full advantage of these

³ Ohio History Connection. Available at: <http://www.ohiohistorycentral.org/w/Radio?rec=1536>

⁴ Matt Novak, “Predictions for Educational TV in the 1930s,” *Smithsonian Magazine*, May 2012. Available online at: <http://www.smithsonianmag.com/history/predictions-for-educational-tv-in-the-1930s-107574983/?no-ist>

⁵ Nicholas Negroponte, *Being Digital*. New York: Alfred A. Knopf, 1995, p. 197.

⁶ Computers and Classrooms. Policy Information Center. Available at: <https://www.ets.org/Media/Research/pdf/PICCOMPCLSS.pdf>

⁷ Nathan Heller, “Laptop U: Has the future of college moved online?” *New Yorker Magazine*, May 20, 2013. Available online at: <http://www.newyorker.com/magazine/2013/05/20/laptop-u>.

emerging opportunities. For those without those resources, the picture is less sunny. They are generally less likely than those in higher socio-economic categories to engage in personal or professional learning – as well as use technology for those pursuits. At the same time, it is still the case that majorities of those in lower-income households and those with less formal education are personal and professional learners.

Many identify as lifelong learners and information seekers

The rise of the knowledge economy, the growing imperative to learn and the proliferation of educational platforms have combined to make America a nation of learners. This survey finds that 73% of adults say the phrase “I think of myself as a lifelong learner” applies “very well” to them and another 20% say it applies “somewhat well.”

This year to say people are perpetually learning is tied to several demographic factors. Those who see themselves as lifelong learners are younger, better educated and better off financially than others.

In addition, many see themselves as information hunters and inquisitive searchers. Some 58% of adults say the following description fits them “very well”: “I often find myself looking for new opportunities to grow as a person,” and another 31% say that notion describes them “somewhat well.” Asked to react to this description, “I like to gather as much information as I can when I come across something that I am not familiar with,” 61% of adults say that statement fits them

People who self-identify as lifelong learners are more likely to be younger, more educated and better off financially

% of adults in each group who say the description of “lifelong learner” applies to them “very well”

Agree with statement “I think of myself as a lifelong learner”	
	73%
Sex	
Men	74
Women	73
Parent of minor child	
Parents	76
Non-parents	72
Race/ethnicity	
White	74
Black	79
Hispanic	63
Age	
18-29	81
30-49	76
50-64	72
65+	62
Educational attainment	
Less than high school	57
High school grad	67
Some college	78
College+	81
Household income	
Less than \$30,000/yr	68
\$30,000-\$49,999	72
\$50,000-\$74,999	78
\$75,000 and over	81
Community type	
Urban	75
Suburban	73
Rural	72

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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“very well.” Another 31% say that phrase captures them “somewhat well.”

By the same token, most Americans reject identifying with phrases that suggest they are not inquisitive. Only 13% say this phrase describes them “very well”: “I am not the type of person who feels the need to probe deeply into new situations or things.” Another 30% say that describes them “somewhat well.” Minorities and those with lower levels of educational attainment and income are more likely to say this statement describes them “very well” compared to others. Some 21% of African Americans and 23% of Hispanics say this statement describes them “very well,” while 17% of those with high school degrees or less and 18% of those with annual household incomes below \$30,000 say this.

That does not mean that every adult is eager to return to school. Half of all adults (51%) say the statement “I am really glad I am no longer in school and no longer have to go to classes anymore” describes them “very well” or “somewhat well,” with about one-third (31%) saying this describes them “very well.” Those with lower levels of educational attainment (high school degrees or less) are more likely to say this statement describes them “very well” – 36% did. And older adults are more likely to express strong views that going to class is something they do not miss. Some 39% of adults between the ages of 50 and 64 and 41% of those ages 65 and over say the statement described them very well.

Americans think it is a good thing when everyone is learning

Large majorities of Americans believe that it is important for their fellow citizens to continue learning. Strong majorities – 87% of all adults – say that it is very important that people make an effort to learn new things about their jobs. Some 70% say that it is very important that people learn new things about their local communities and a similar number (69%) say the same about things happening in society such as developments in science, technology, entertainment or culture.

A solid majority (58%) say it is very important that people learn new things about their hobbies or interests. In general, these positive sentiments about learning new things are somewhat stronger among better educated adults. For learning about their local community, African Americans and Hispanics are more likely to say this is very important, with 82% of African Americans and 75% of Hispanics saying so.

2. Three-quarters of adults have done a personal learning activity in the past year

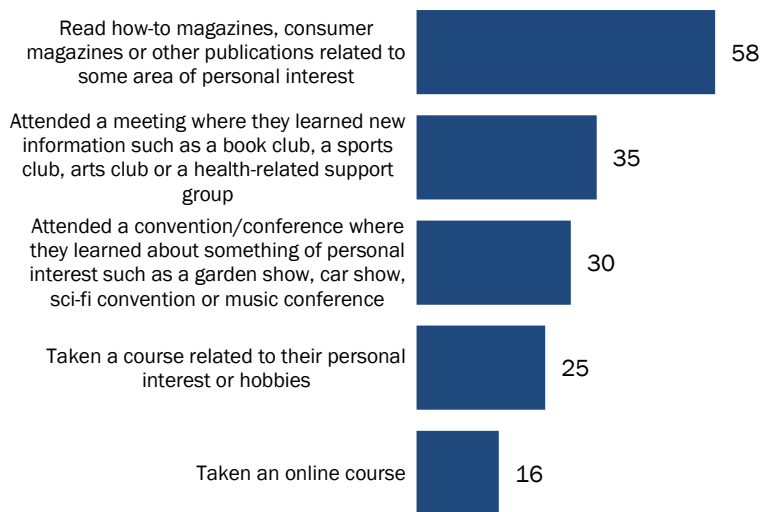
To characterize the landscape of personal learning among adult Americans, the October-November 2015 survey presented respondents a list of possible learning activities they might pursue. For personal learning, most adults turn to how-to magazines, consumer magazines or other publications to learn something on a topic of personal interest – and this outpaces signing up for an online course by a 58% to 16% margin. The nearby chart shows the range of personal learning activities that we queried in this survey. Overall, 74% of adults have done at least one of the five personal learning activities considered.

For the most part, adults are motivated to pursue this learning because they have extra time or a desire to make their lives more full. Among

personal learners, 80% do this to make their lives more interesting or full and 60% do this because they have extra time on their hands. Additionally, 64% are motivated to pursue learning in order to help others more effectively. Another third (36%) say turning a hobby into something that generates income was a motive and a similar number (33%) say they engaged in such learning to keep up with the activities of their kids, grandchildren or others in their life.

Personal learners: 74% of adults did at least one of these activities in the past year

% of adults who say they have done the following activities in the past 12 months



Source: Survey conducted Oct. 13-Nov. 15, 2015.

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Personal learners are more likely to be women, white, better educated and wealthier

% of adults in each group who participated in at least one of a variety of activities in the past 12 months related to personal growth and enrichment ...

Personal learners	74%
Sex	
Men	71
Women	78
Parents	
Parents	70
Non-parents	76
Race/ethnicity	
White	79
Black	64
Hispanic	60
Age	
18-29	79
30-49	73
50-64	74
65+	72
Educational attainment	
High school grad or less	60
Some college	80
College+	87
Household income	
Less than \$30,000/yr	65
\$30,000-\$49,999	75
\$50,000-\$74,999	81
\$75,000 and over	83
Community type	
Urban	75
Suburban	75
Rural	69

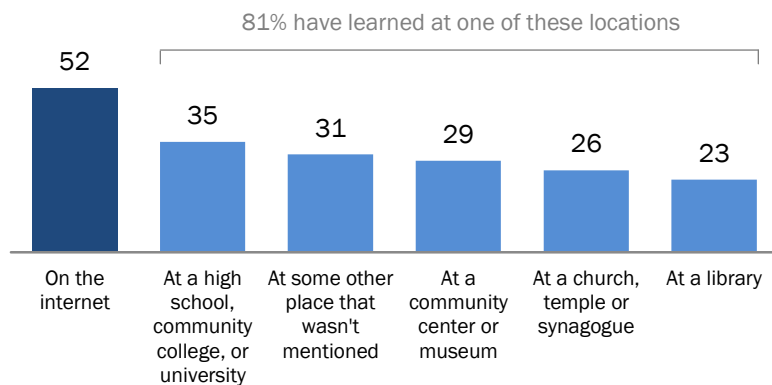
Source: Survey conducted Oct. 13-Nov. 15, 2015.

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When asked where they have taken courses or pursued personal learning, the internet leads the way. Still, place matters a great deal for personal learning, even as the internet plays a role for many learners in getting more out of location-based experiences. Overall, 81% of personal learners say that one of the five types of locations we listed in the survey was a site where they pursued their learning. It is also the case that a minority of personal learners rely *heavily* on the internet for learning: one-third (31%) say that most or all of their learning took place online.

Personal learners are more likely to pursue their activities at physical locales than they are to use the internet

% of personal learning adults who say they have learned at one of the following locations



Note: Based on 74% of adults that are classified as personal learners

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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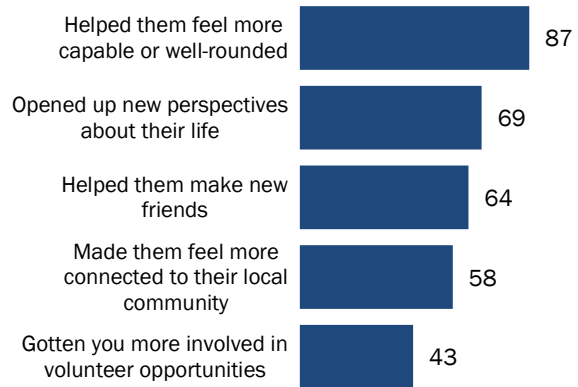
Wherever people learn or whatever their motivation, one thing is clear: Learners report positive impacts from their personal educational pursuits. Nearly nine-in-ten (87%) say their personal learning has helped them feel more capable, but strong majorities express satisfaction in other areas, too.

These uniformly positive perspectives on the impact of personal learning are more prominent for minorities and lower-income Americans. African Americans and Hispanics who are personal learners are more likely than white Americans to say personal learning opens up new perspectives in their lives: 80% of African Americans and 77% of Hispanics say this, while 65% of whites do. The figures are similar for making new friends, with 78% of Hispanics and 75% of blacks saying that adult learning helps them make new friends, compared with 60% of whites. These groups are also more likely than whites to say personal learning makes them feel more connected to their community: 65% of Hispanics and 64% of African Americans say this, while 55% of whites do.

With respect to income, 75% of personal learners in homes with annual household incomes less than \$30,000 say personal learning has opened up new perspectives in their lives, 70% say it has helped them make new friends and 65% say it has made them feel more connected to their community. For higher income Americans (those whose annual household incomes are \$75,000 or more), 68% say personal learning has opened up new perspectives in their lives, 63% say it has helped them make new friends and 54% say it has made them feel more connected to their community.

Personal learners get benefits from their activities

% of personal learners who say their learning activities ...



Note: Based on 74% of adults that are classified as personal learners

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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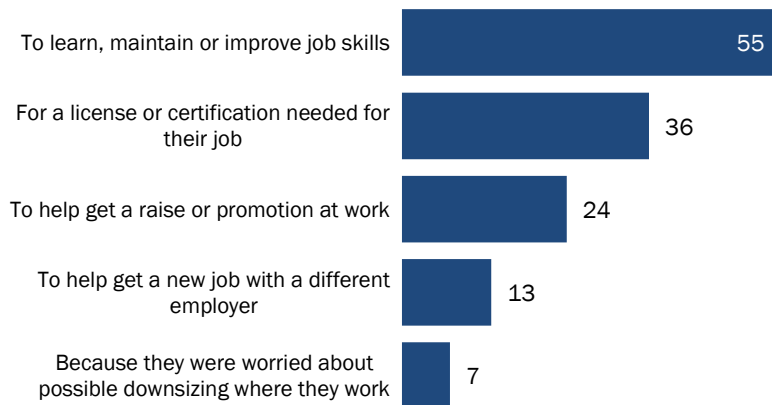
3. Almost two-thirds of employed adults pursue job-related learning

To understand learning for people's jobs or careers, the survey employed a strategy similar to that for personal learning by presenting employed adults a list of reasons they might have sought out training or learning in the prior year. It turns out that in the past 12 months well over half of employed adults sought out training or course work to learn, improve or maintain job skills, while just over one-third had some training for a license or certification.

Altogether, 63% of employed adults took a course or got training for at least one of these five learning activities, which comes to 36% of all adults.

Professional learners: 63% of workers (36% of all adults) got job-related training in past year

% of full- and part-time workers who took a course or got training for the following purposes in the past 12 months



Note: 58% of adults work in full- or part-time jobs

Source: Survey conducted Oct. 13-Nov. 15, 2015.

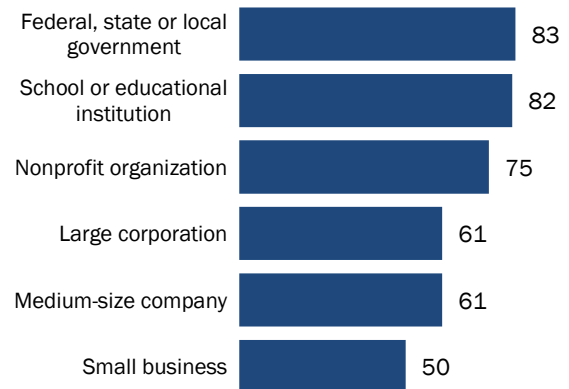
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There is a good deal of variation in the incidence of professional learning that depends on the type of job people have. For instance, large majorities of those who work in government, education or for non-profit organizations did some professional learning in the past 12 months, compared with 63% of all employed adults.

Those who work in government or education make up a smaller share of the workforce (10% for each) than those identifying their workplace as a large (29%), medium (15%) or small business (27%). It is possible that the nature of jobs in government and education is more likely to lead people to work-place learning than jobs in large, medium or small businesses. It could also be that those fields have more requirements or opportunities for ongoing job training.

Government workers and educators are highly likely to be professional learners

% of workers in different professions who are professional learners



Note: Based on 63% of workers (or 36% of all adults) who had job-related training in the past 12 months and are classified as professional learners in this survey

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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Moreover, there are some other noteworthy demographic differences among those who are professional learners. Those with college degrees or more, women, and those in the middle and upper income ranges are more likely to have done some professional learning in the past year. Hispanics and low-income Americans are much less likely to be professional learners, with African Americans somewhat below the norm.

Professional learners are more likely to be women, college educated and in households earning \$50,000+

Among employed adults, % of those who took a course or got extra training in the past 12 months for job-related reasons ...

Professional learners	63%
Sex	
Men	60
Women	67
Parents	
Parents	66
Non-parents	61
Race/ethnicity	
White	65
Black	59
Hispanic	52
Age	
18-29	66
30-49	65
50-64	60
65+	47
Educational attainment	
High school grad or less	49
Some college	67
College+	72
Household income	
Less than \$30,000/yr	49
\$30,000-\$49,999	63
\$50,000-\$74,999	69
\$75,000 and over	69
Community type	
Urban	64
Suburban	62
Rural	63

Note: Based on the 58% of adults that work in full- or part-time jobs

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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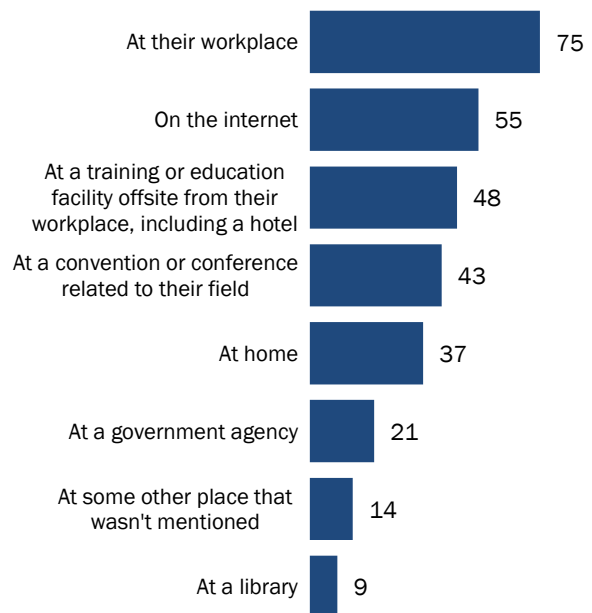
Adults' perspectives on the nature of their jobs also shape whether they have engaged in professional learning in the past year. More than half (55%) of employed adults view their jobs as a career and another 17% see them as a stepping stone to a career. Of those two groups, 71% and 68% respectively have had workforce training or learning in the past year. For the one quarter (27%) of the employed population who see their job as something that lets them get by, 44% did some learning related to their job in the past year.

Where this learning takes place can encompass a number of places, but the workplace and the internet are the places people cite most often. Among those who have done learning in the past year related to their job or career, the nearby chart shows where their learning took place.

It is worth highlighting the role that physical spaces play in work-related training. At their workplace, dedicated offsite facilities, or conferences are significant for many respondents. Some 90% of professional learners cite one of these three places as the site where their learning takes place. The internet's role is less prominent and, given the dominance of placed-based learning, is likely a supplement to learning that unfolds where people gather in the same place. The fact that just one-third (32%) of professional learners say that all or most of their learning takes place online reinforces the supplementary nature of the internet in this area.

Professional learners got their job-related training in a variety of places

% of professional learners who did their training at these locations in the past 12 months



Note: Based on 63% of workers (or 36% of all adults) who had job-related training in the past 12 months and are classified as professional learners in this survey

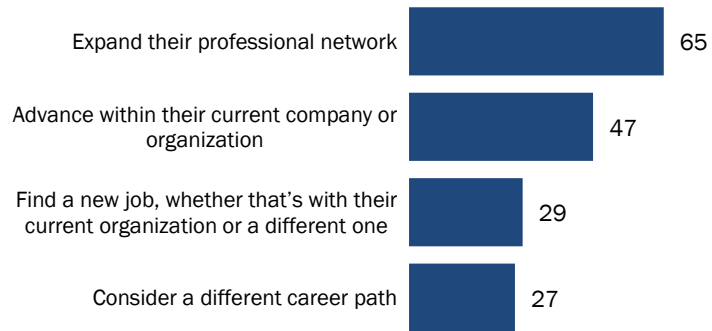
Source: Survey conducted Oct. 13-Nov. 15, 2015.

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As to impacts of professional learning, employed adults who do such learning are most likely to say it expands their professional network (65%) and nearly half (47%) say it has helped them expand in their current organization or company.

Professional learners get payoffs from their work-related training

% of professional learners who say their extra training in the past 12 months helped them to ...



Note: Based on 63% of workers (or 36% of all adults) who had job-related training in the past 12 months and are classified as professional learners in this survey

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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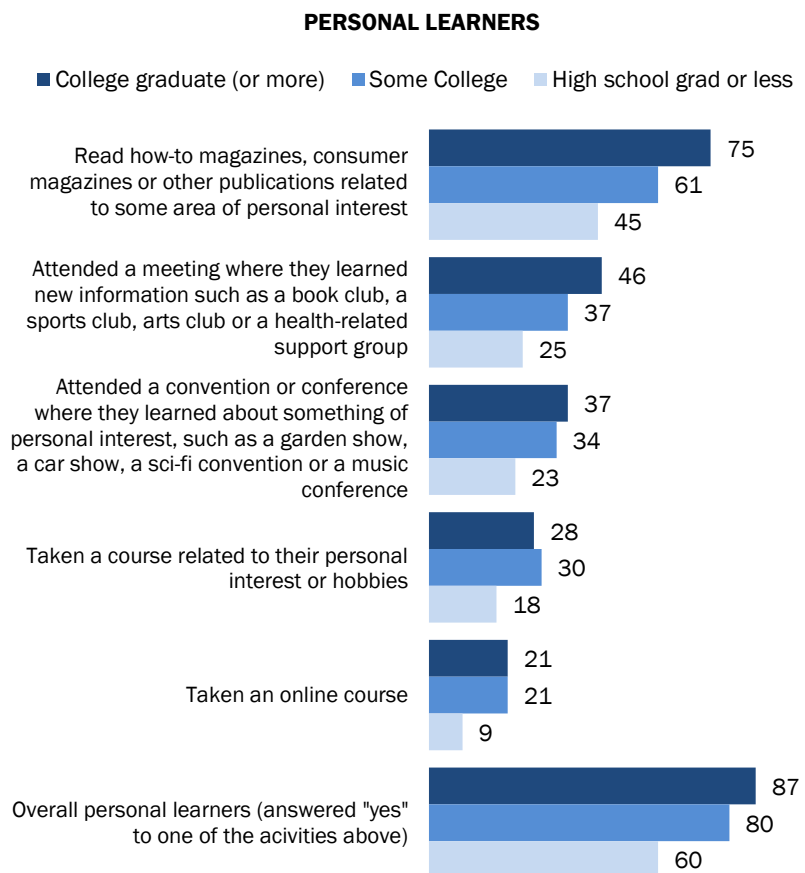
4. Those on the lower end of the socio-economic ladder are less likely to take advantage of lifelong learning opportunities

The survey's overall findings show that adult learning – for personal or professional purposes – touches a wide range of Americans. However, significant differences emerge along adults' levels of educational attainment and income. Those on the lower end of those scales are less likely to engage in professional or personal learning and have less positive views of their impacts. Additionally, the internet plays less of a role in how they go about learning than it does for those with higher levels of income and education.

The sizes of the key segments being compared are worth underscoring. Some 40% of adults have high school degrees or less in the United States, while 28% have college degrees or more. One-third (32%) of adults report living in households with annual incomes of \$30,000 or less, compared with 27% who say they live in homes where their annual incomes exceed \$75,000.

Those with higher education levels are more likely to be personal learners

% of adults with different levels of educational achievement who participated in these personal learning activities in the past 12 months



Source: Survey conducted Oct. 13-Nov. 15, 2015.

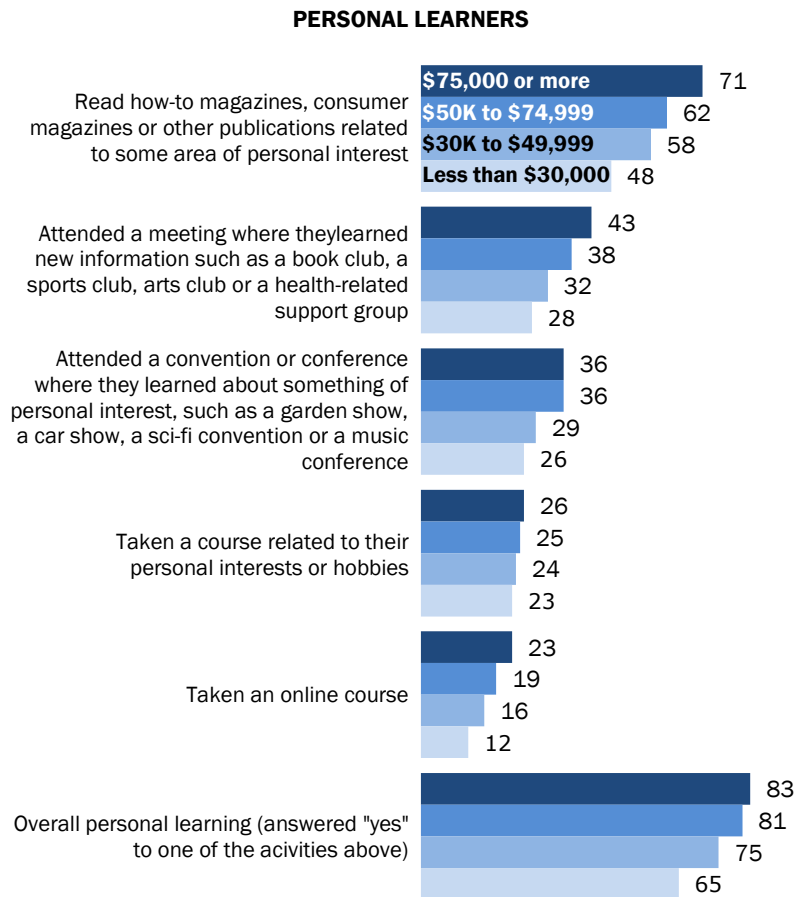
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The nearby charts show how the results break out for all responses for personal learning focusing on those on the lower end of educational and income spectrums; that is, comparing those with high school degrees or less to those with college degrees and those in households whose incomes are below \$30,000 annually to those in households with annual incomes above \$75,000.

The patterns are roughly the same for personal learners, with findings at either end of the income spectrum congruent with those at either end of the education spectrum.

Those who live in higher income households are more likely to be personal learners

% of adults in households with different levels of income who participated in these personal learning activities in the past 12 months



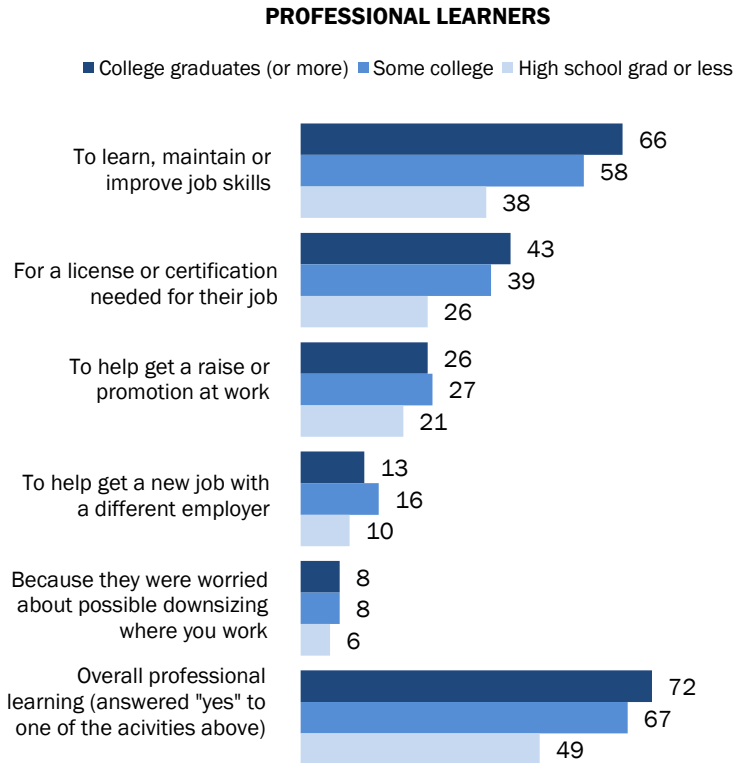
Source: Survey conducted Oct. 13-Nov. 15, 2015.

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The differences are acute for overall incidence of professional learning as well as the most prevalent example of professional learning – maintaining or improving job skills. Educational differences demonstrate this most vividly. Among employed adults with college degrees, 72% have engaged in professional learning in the past year, while 49% of those with no more than high school degrees have done this.

Those with more education are more likely to have participated in professional learning

% of full- and part-time workers with different levels of educational achievement who took a course or got training in the past 12 months for these purposes



Note: Based on 58% of adults that work full time or part time

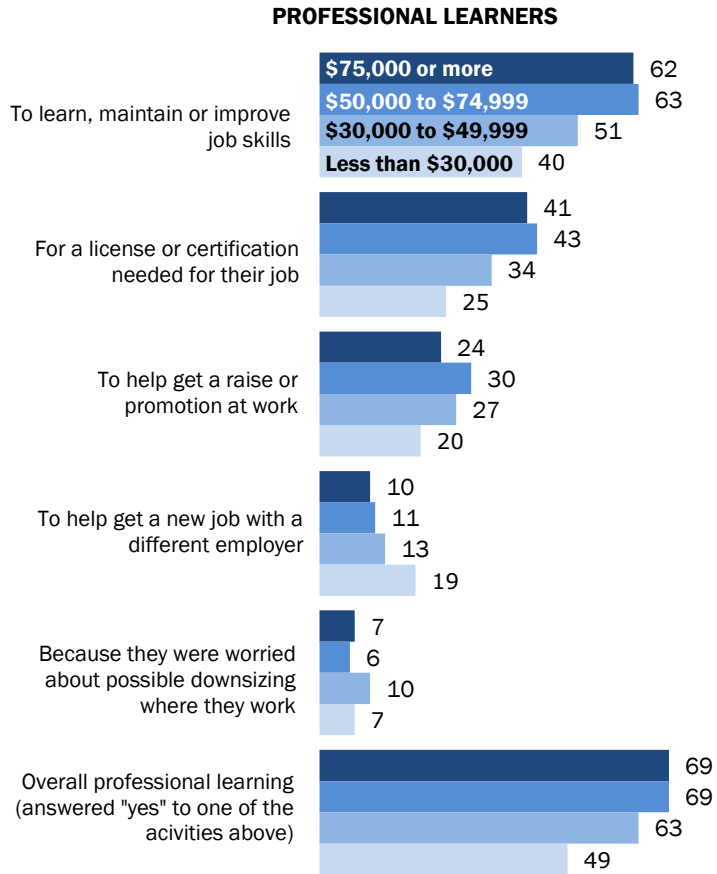
Source: Survey conducted Oct. 13-Nov. 15, 2015.

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Looking at the economic factors for professional learning reveals similar, if somewhat less pronounced patterns.

Those who live in higher-income households are more likely to be professional learners

% of full- and part-time workers in households with different levels of income who took a course or got training in the past 12 months for these purposes



Note: Based on 58% of adults that work fulltime or part-time

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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5. The internet plays less of a role in lifelong learning for those with lower levels of education and income

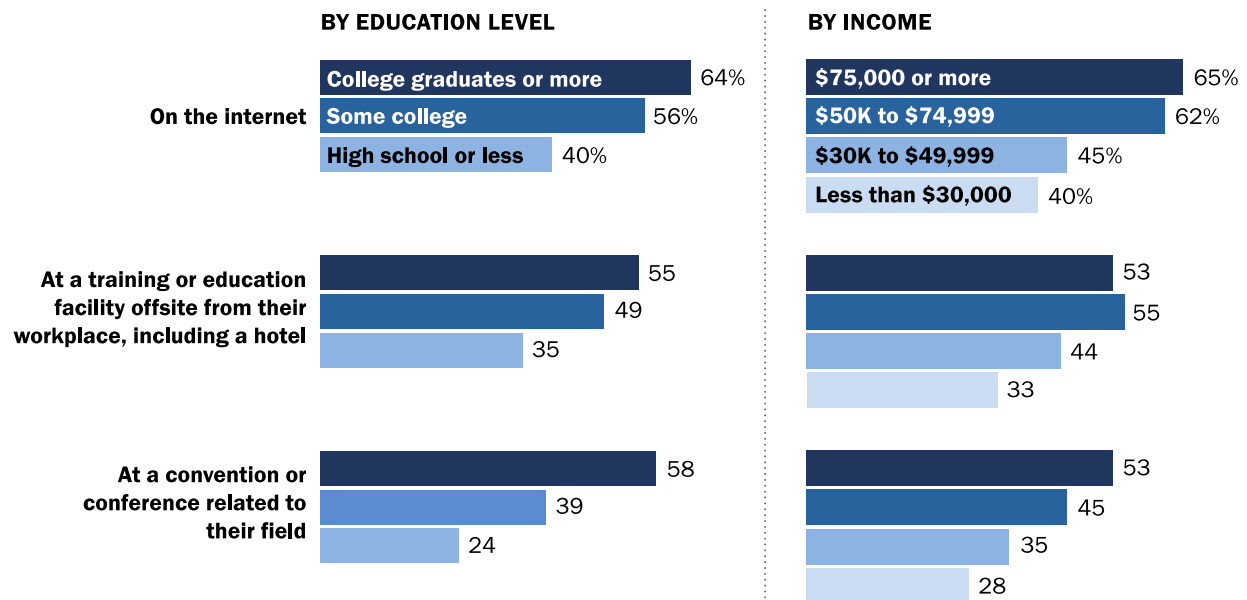
Along with class-based differences in the overall incidence of pursuing learning, there are differences across class lines when it comes to where learning takes place and how adults view its impact.

For personal learning, the only significant difference emerges when looking at whether people used the internet for personal learning. Overall, 52% of personal learners used the internet for their learning, but there was a 15 percentage-point gap when looking at either end of the education spectrum and a similar gap for income. Some 58% of personal learners with college degrees or more used the internet for personal learning in the past 12 months, compared with 43% of personal learners who have high school diplomas or less. Similarly, 60% of personal learners living in households earning more than \$75,000 used the internet for their personal enrichment activities, compared with 44% of the personal learners living in households earning less than \$30,000.

For professional learning, these class differences also emerge. Among those who pursue learning for their jobs or careers, most of this occurs at the workplace regardless of an individual's education or income. However, those on the lower end of the socio-economic ladder (who are less likely to have such learning opportunities in the first place) are much less likely to do this online, at a convention or at a conference.

Professional learners with higher levels of education or income are more likely to get training in several locales

% of professional learners who got work-related training in these places



Note: Based on 63% of workers (or 36% of all adults) who had job-related training in the past 12 months and are classified as professional learners in this survey

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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Those who are better off and better educated get more benefits from learning

When it comes to the impact of different kinds of learning, the learners with higher education levels and higher household income levels are also more likely than others to report reaping gains from their activities.

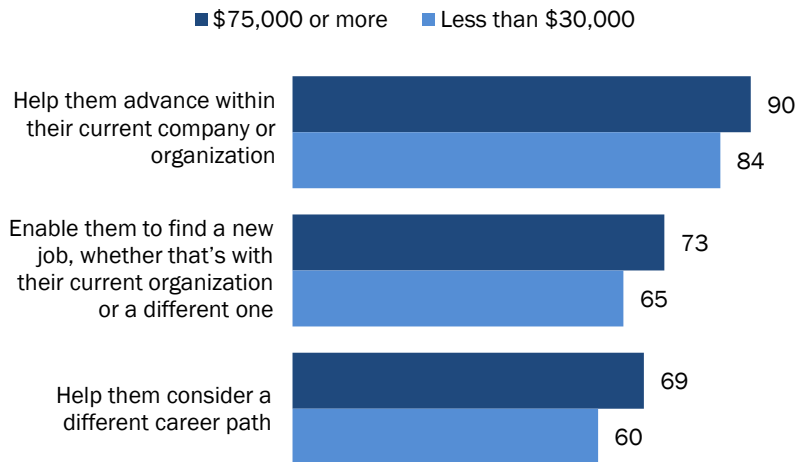
Professional learners who had training or took classes for job-related activities herald how such training expands their professional networks. Fully 72% of professional learners who have college

degrees or more say their extra learning expanded their professional network, compared with 50% of professional learners with high school degrees or less.

There are also modest differences between better off and less-well-off professional learners when it comes to other advantages of job-related education activities, including advancing in their companies or finding new jobs.

Higher-income professional learners are a bit more likely to reap benefits from their extra training

% of professional learners who cited these benefits from their extra training



Note: Based on 63% of workers (or 36% of all adults) who had job-related training in the past 12 months and are classified as professional learners in this survey

Source: Survey conducted Oct. 13-Nov. 15, 2015.

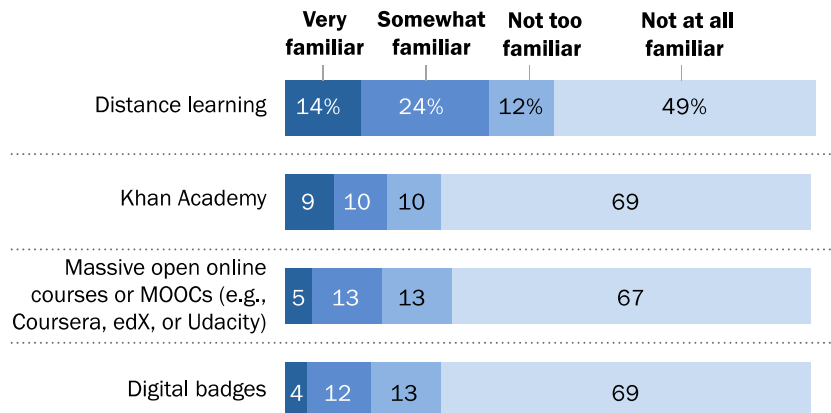
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There is not overwhelming public awareness of some key digital learning platforms

Even though the internet is a key part of the learning environment for personal and professional learners, some of the newer platforms that have captured wide media coverage and stirred commentary in education circles are not necessarily breaking into most of the public's consciousness. In this survey, Pew Research Center asked about four key parts of online learning and found that professional and personal learners were more aware than others of the concepts, but that it was usually the case that most learners did not have deep familiarity:

Many adults are not deeply familiar with some major digital learning concepts and platforms

% of adults who are ... with the following online learning concepts and platforms



Source: Survey conducted Oct. 13-Nov. 15, 2015.

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- **Distance learning:** This is a concept that has been around since the dawn of the internet, yet only 14% of Americans say they are “very familiar” with it and another 24% say they are “somewhat familiar” with it. Overall, about half of professional learners (53%) and personal learners (48%) say they are very or somewhat familiar with the concept of distance learning.
- **Khan Academy:** This is a website with thousands of short videos on [dozens of academic topics](#), ranging from math concepts to history lessons to the art of Asia. Some 9% of adults say they are “very familiar” with the site and another 10% are “somewhat familiar” with it. About a fifth of professional learners (23%) and personal learners (22%) are very or somewhat familiar with Khan Academy.
- **MOOCs:** These are “Massive Open Online Courses” that especially came to prominence in the college world in 2008-2009. They caught wide attention as courses could potentially open to limitless numbers of students around the world. Sometimes the courses have been offered for free and sometimes organizations have charged students. In this survey, 5% of adults said they were “very familiar” with MOOCs and another 13% said they were “somewhat familiar” with them. Some 25% of professional leaders said they were at least somewhat familiar with MOOCs and 22% of personal learners were somewhat familiar.

- **Digital badges:** These are symbols that are meant to certify that someone has accomplished something or mastered some knowledge. They might cover anything from acknowledging that someone has completed a marathon to affirming that someone is competent at using social media. Some 4% of adults say they are “very familiar” with digital badges and another 12% say they are “somewhat familiar.” About a fifth of professional learners (21%) and personal learners (18%) say they have at least some familiarity with digital badges.

6. Adults with tech-access tools are more likely to be lifelong learners and rely on the internet to pursue knowledge

The internet's role in facilitating people's choice to engage in personal or professional learning hinges to some degree on the tech assets they have. As Pew Research Center has reported, two-thirds of Americans have a smartphone (68%) and another two-thirds have a home broadband connection (67%). One measure of persistent connectivity is whether people have both a smartphone and a home broadband connection. In the October-November 2015 survey, 56% of adults report having both. This turns out to be a good metric for analyzing the association between tech assets and learning among adults.

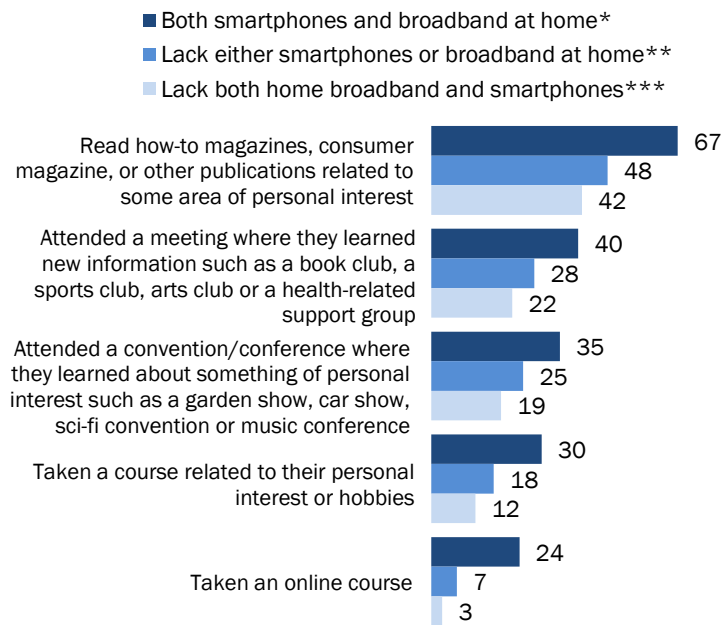
There is nearly a 20 percentage-point difference in the incidence of personal

learning in the past 12 months between those who have both smartphones and home broadband and those who have one but not both kinds of connectivity. The gap is even greater than that for those with neither smartphones nor home broadband connections (19% of all adults).

- 82% of those with smartphones and home high-speed connections have done some sort of personal learning.

The more technology people have, the more likely they are to be personal learners

% of adults who participated in these personal learning activities in the past 12 months



Source: Survey conducted Oct. 13-Nov. 15, 2015.

Note: *56% of all adults have both smartphones and broadband at home.

**44% of all adults lack either smartphones or broadband at home.

***19% of all adults have neither home broadband nor a smartphone.

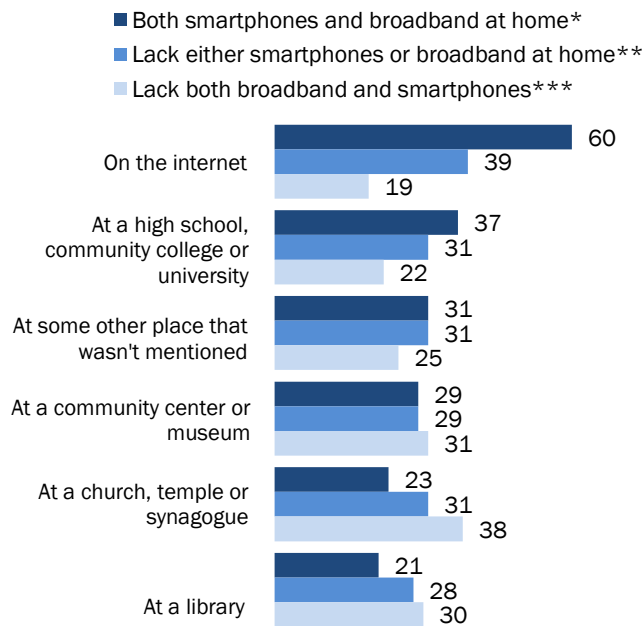
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- 64% without just one of those tech assets have done some sort of personal learning in the past year.
- 54% of those with neither home broadband connections nor smartphones.

The differences in internet access also show up when looking at the places adults undertake their personal learning activities. When asked how much of their personal learning they do on the internet, personal learners with smartphones and broadband connections at home are far more likely to rely on the internet than those lacking at least one of those.

Personal learners with multiple internet access options are more likely to learn online

% of personal learners who did their learning in the following places in the past 12 months



Note: * 56% of all adults have both smartphones and broadband at home.

** 44% of all adults lack either smartphones or broadband at home.

*** 19% of all adults have neither home broadband nor smartphones.

Source: Survey conducted Oct. 13-Nov. 15, 2015.

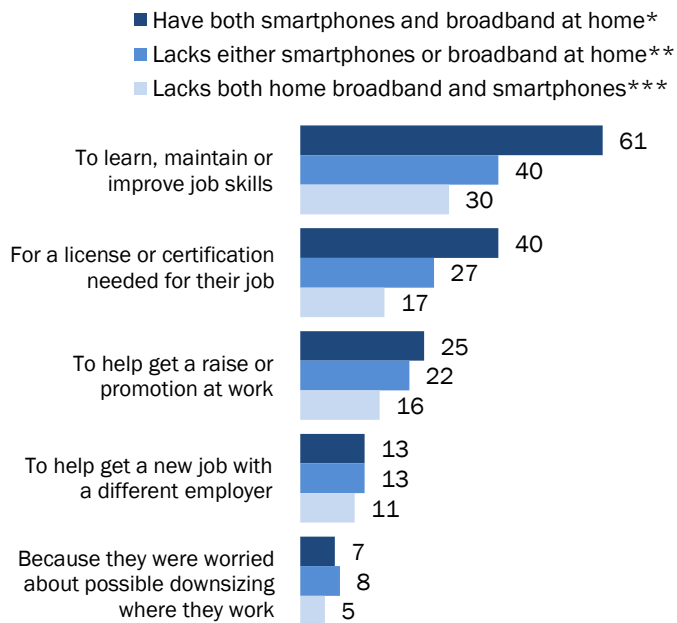
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The same dynamic is on display for professional learning. Among employed adults:

- 69% of those with both home broadband connections and smartphones have done some sort of learning for professional or job-related reasons in the past year.
- 51% of those who have either home broadband or smartphones, but not both, have engaged in some professional learning in the past year.
- 41% of those who lack both broadband and smartphones have engaged in some professional learning in the past year.

Those with more internet connectivity options are more likely to be professional learners

% of workers who took class or got extra training for work-related learning in the past 12 months and who have different technology assets



Note: 64% of workers (36% of all adults) are professional learners who got work-related training in the past 12 months

* 56% of all adults have both smartphones and broadband at home.

** 44% of all adults lack either smartphones or broadband at home.

*** 19% of all adults have neither home broadband nor smartphones.

Source: Survey conducted Oct. 13-Nov. 15, 2015.

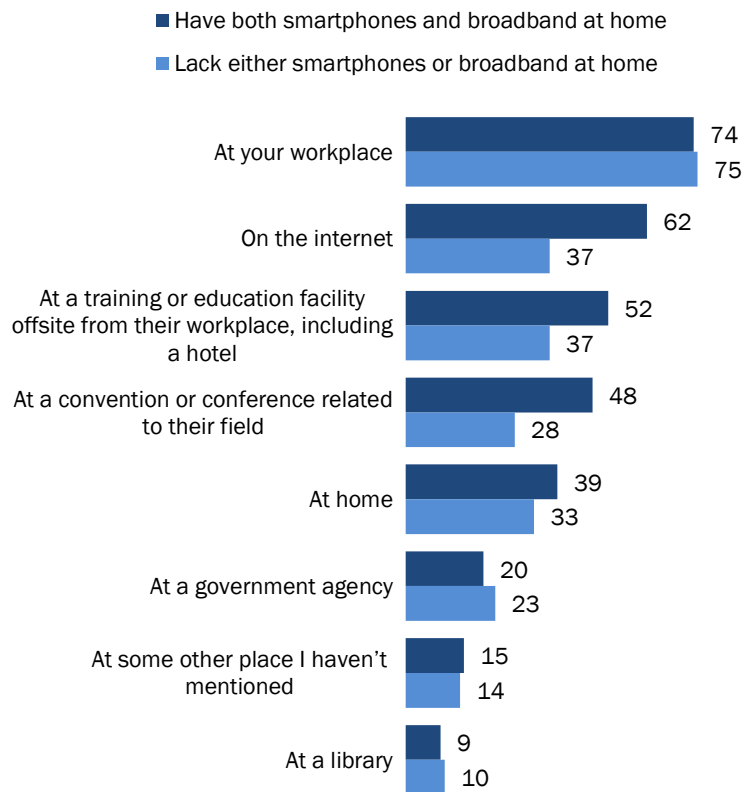
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The places where professional learners got their extra training also are associated with the kinds of technology tools people have. More tech access means greater reliance on the internet for training, as well as training offsite from the workplace or at conventions. There are too few cases to present findings on those with low levels of tech access (i.e., they lack smartphones or home broadband connections), but a general pattern shows that professional learners who lack home broadband and smartphones are a bit more reliant on community institutions, such as libraries, for training and less likely to attend conventions or use the internet for professional training.

And, much like the case for personal learning, tech access shapes how heavily adults use the internet for professional learning. More than one-third of professional learners with lots of tech assets say they did all or most of their learning online, while about one-fifth with fewer options for online access say this.

The more technology professional learners have, the more likely they are to use the internet for work-related training

% of professional learners who got work-related training in these places



Note: 64% of workers (36% of all adults) are professional learners who got work-related training in the past 12 months

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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7. People’s attitudes about learning, the classroom and personal growth shape adult learning activities

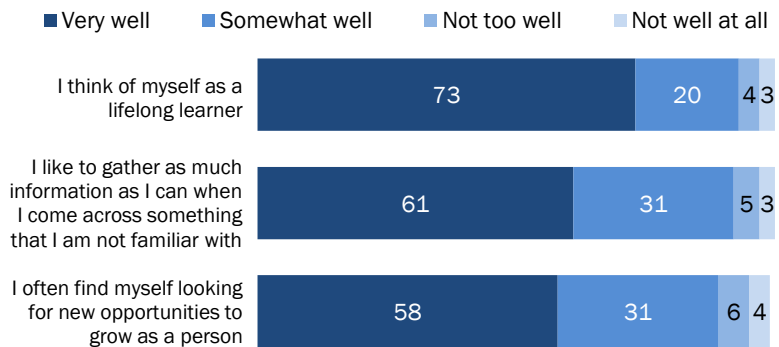
Although socio-economic status and technology assets clearly shape people’s opportunities for learning and pursuit of it, there is more to it than those factors alone. A person’s attitude toward learning, enthusiasm about the classroom and overall levels of curiosity also come into play.

The survey asked a series of questions on these issues and adults reported a range of attitudes about learning. Most like the idea of lifelong learning and personal growth, though not as many yearn for their classroom days and fewer feel the need to dig deeply into new situations they may encounter.

- 73% of adults say this phrase describes them “very well”: “I think of myself as a lifelong learner.”
- 61% say this phrase describes them “very well”: “I like to gather as much information as I can when I come across something that I am not familiar with.”
- 58% say this describes them “very well”: “I often find myself looking for new opportunities to grow as a person.”

Most Americans see themselves as interested in learning new things and open to growth

% of all adults who say the following phrases describe them “very well,” “somewhat well,” “not too well” or “not well at all”



Source: Survey conducted Oct. 13-Nov. 15, 2015.

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On the other side of the spectrum, about half of Americans say they are least somewhat glad to have left classroom life behind them. But few say they do not want to probe new subjects too deeply.

- 31% say this describes them “very well”: “I am really glad I am no longer in school and don’t have to go to classes anymore.” Another 20% say that idea describes them “somewhat well.”

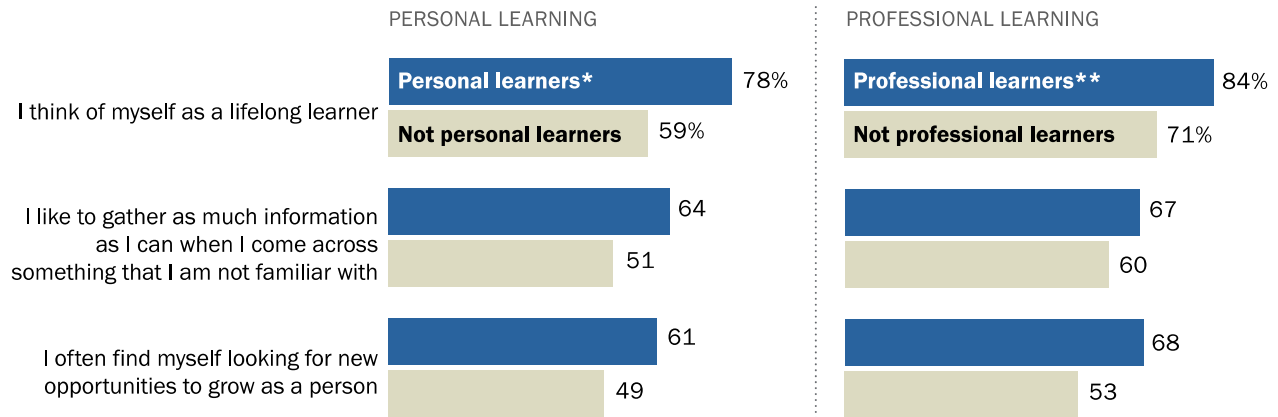
- 13% say this describes them “very well”: “I am not the type of person who feels the need to probe deeply into new situations or things.” Another 30% said that describes them “somewhat well.”

Not surprisingly, people’s attitudes about learning in general shape whether they engaged in personal or professional learning. Those who say they are lifelong learners, like to gather as much information as they can, and look for opportunities to grow are more likely to have done a personal learning activity in the past year.

The results are similar for those who have done professional learning activities in the past year. Professional learners are more likely than those who are not to agree that attributes indicating an interest in learning describe them very well. Professional learners are also more likely to say that “looking for new opportunities to grow as a person” describes them very well.

Those who are open to learning and new experiences are more likely to be personal and professional learners

% of all adults who say the following phrases describe them “very well”



Note: * Based on 74% of adults who are classified in this survey as personal learners

** Based on 63% of workers (or 36% of all adults) who had job-related training in the past 12 months and are classified as professional learners in this survey Based on 63% of workers (36% of all adults) that are professional learners who got work-related training in the past 12 months

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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8. In addition to socio-economic class, there are differences in adult learning with respect to race and ethnicity

In addition to the class differences in the incidence of personal and professional learning, there are also differences associated with race and ethnicity. African Americans and Hispanics are less likely to say they have pursued personal learning activities in the prior year by margins that differ significantly from white adults. The differences for professional learning are less pronounced for African Americans, though still substantial for Hispanics.

Some of the differences for African Americans and Hispanics come from the fact that, on average, they are more likely to have lower incomes and levels of educational attainment than whites. The class-based differences identified previously, in other words, are generally more prevalent for African Americans and Hispanics. In this survey, 32% of white adults have college degrees or more, while 18% of African Americans say this and 12% of Hispanics do. Similarly, one quarter (25%) of white adults report living in households with annual incomes of \$30,000 or less, compared to half of African Americans (49%) and Hispanics (51%).

Nonetheless, for personal learning, the differences for both African Americans and Hispanics compared to whites are significant when taking into account levels of income and education. In other words, even African Americans and Hispanics with lower educational levels are less likely to engage in personal learning than whites with the same educational levels. These patterns are not evident for professional learning, where (when controlling for income and education) there are no significant difference in professional learning that can be traced to race and ethnicity.

African Americans and Hispanics are less likely than whites to engage in personal or professional learning

Among all adults, % of each group who engage in personal learning



*Among employed adults, % of each group who engage in professional learning**



Note: * Based on 58% of adults who have full- or part-time jobs

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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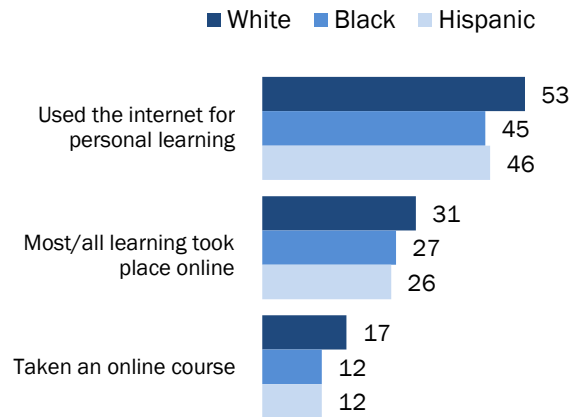
For Hispanics, language has a lot to do with adult learning. Overall, 15% of respondents to the October-November 2015 survey identify as Hispanic and about four-in-ten chose to take the survey in Spanish, suggesting that English is not the primary language for these respondents. The differences for personal learning among Hispanics who took the survey in Spanish compared to those who took it in English are striking: 73% of Hispanics who took the survey in English participated in the activities we classified as personal learning, compared with 44% of the Hispanics who took the survey in Spanish who classified as personal learners.

The differences for African Americans are also well worth examining. They trail white adults by a 15 percentage-point margin for personal learning (79% to 64%), while the difference is smaller for professional learning. Some 59% of employed African Americans have pursued professional learning in the past year, compared to 65% of whites.

In addition to lower levels of

Whites are more likely to have used the internet for personal learning

% of personal learners who used technology for their learning activities



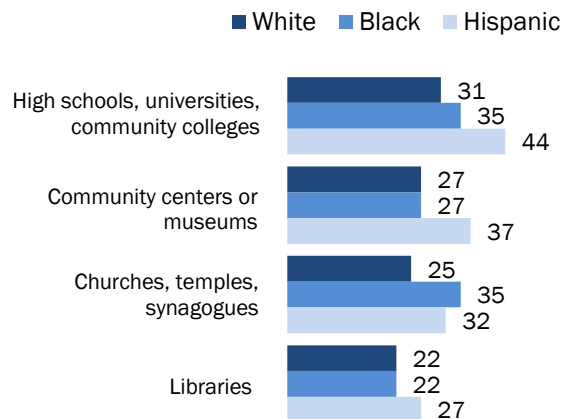
Note: Based on the 74% of adults who are classified in this survey as personal learners

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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Blacks and Hispanics are more likely to have done their personal learning in physical places

% of personal learners who had their learning experiences in ...



Note: Based on the 74% of adults who are classified in this survey as personal learners

Source: Survey conducted Oct. 13-Nov. 15, 2015.

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personal learning for Hispanics and African Americans, there are differences in how they pursue it relative to white adults. In general, learners who are Hispanic or African American are a bit more likely than whites to rely on institutions such as community centers, places of worship or libraries. By contrast, they are generally less reliant on online courses or just using the internet for some part of their personal learning.

Acknowledgments

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Methodology

The Educational Ecosystem 2015 Survey, sponsored by Pew Research Center, obtained telephone interviews with a nationally representative sample of 2,752 adults living in the United States. Interviews were conducted via landline ($n_{LL}=963$) and cellphone ($n_C=1,789$; including 1,059 without a landline phone). The survey was conducted by Princeton Survey Research Associates International (PSRAI). The interviews were administered in English and Spanish by Princeton Data Source, LLC from Oct. 13 to Nov. 15, 2015. Statistical results are weighted to correct known demographic discrepancies. The margin of sampling error for the complete set of weighted data is ± 2.1 percentage points. For results based on Internet users⁸ ($n=2,428$), the margin of sampling error is ± 2.3 percentage points.

Details on the design, execution and analysis of the survey are discussed below.

DESIGN AND DATA COLLECTION PROCEDURES

Sample Design

A combination of landline and cellular random-digit dial (RDD) samples was used to represent all adults in the United States who have access to either a landline or cellular telephone. Both samples were provided by Survey Sampling International, LLC (SSI) according to PSRAI specifications.

Numbers for the landline sample were drawn with equal probabilities from active blocks (area code + exchange + two-digit block number) that contained one or more residential directory listings. The cellular sample was not list-assisted, but was drawn through a systematic sampling from dedicated wireless 100-blocks and shared service 100-blocks with no directory-listed landline numbers.

Contact Procedures

Interviews were conducted from Oct. 13 to Nov. 15, 2015. As many as seven attempts were made to contact every sampled telephone number. Sample was released for interviewing in replicates, which are representative subsamples of the larger sample. Using replicates to control the release of sample ensures that complete call procedures are followed for the entire sample. Calls were staggered over times of day and days of the week to maximize the chance of making contact with potential respondents. Interviewing was spread as evenly as possible across the days in field.

⁸ Internet user definition includes those who use the internet or email at least occasionally or access the internet on a cellphone, tablet, or other mobile handheld device at least occasionally.

When necessary, each telephone number was called at least one time during the day in an attempt to complete an interview.

For the landline sample, interviewers asked to speak with the youngest adult male or female currently at home based on a random rotation. If no male/female was available, interviewers asked to speak with the youngest adult of the other gender. This systematic respondent selection technique has been shown to produce samples that closely mirror the population in terms of age and gender when combined with cell interviewing.

For the cellular sample, interviews were conducted with the person who answered the phone. Interviewers verified that the person was an adult and in a safe place before administering the survey. The cellular respondents were offered a post-paid cash reimbursement for their participation.

WEIGHTING AND ANALYSIS

Weighting is generally used in survey analysis to compensate for sample designs and patterns of non-response that might bias results. The sample was weighted to match national adult general population parameters. A two-stage weighting procedure was used to weight this dual-frame sample.

The first stage of weighting corrected for different probabilities of selection associated with the number of adults in each household and each respondent's telephone usage patterns.⁹ This weighting also adjusts for the overlapping landline and cell sample frames and the relative sizes of each frame and each sample.

The first-stage weight for the i^{th} case can be expressed as:

$$WT_i = \left[\left(\frac{S_{LL}}{F_{LL}} \times \frac{1}{AD_i} \times LL_i \right) + \left(\frac{S_{CP}}{F_{CP}} \times CP_i \right) - \left(\frac{S_{LL}}{F_{LL}} \times \frac{1}{AD_i} \times LL_i \times \frac{S_{CP}}{F_{CP}} \times CP_i \right) \right]^{-1}$$

Where S_{LL} = the size of the landline sample

F_{LL} = the size of the landline sample frame

S_{CP} = the size of the cell sample

⁹ i.e., whether respondents have only a landline telephone, only a cellphone, or both kinds of telephone.

F_{CP} = the size of the cell sample frame

AD_i = Number of adults in household i

$LL_i=1$ if respondent has a landline phone, otherwise $LL=0$.

$CP_i=1$ if respondent has a cellphone, otherwise $CP=0$.

The second stage of weighting balances sample demographics to population parameters. The sample is balanced to match national population parameters for sex, age, education, race, Hispanic origin, region (U.S. Census definitions), population density and telephone usage. The Hispanic origin was split out based on nativity: U.S. born and non-U.S. born. The white, non-Hispanic subgroup was also balanced on age, education and region.

The basic weighting parameters came from the U.S. Census Bureau's 2013 American Community Survey (ACS) data.¹⁰ The population density parameter was derived from Census 2010 data. The telephone usage parameter came from an analysis of the July-December 2014 National Health Interview Survey.¹¹

Weighting was accomplished using Sample Balancing, a special iterative sample weighting program that simultaneously balances the distributions of all variables using a statistical technique called the *Deming Algorithm*. Weights were trimmed to prevent individual interviews from having too much influence on the final results. The use of these weights in statistical analysis ensures that the demographic characteristics of the sample closely approximate the demographic characteristics of the national population. Table 1 compares weighted and unweighted sample distributions to population parameters.

¹⁰ ACS analysis was based on all adults excluding those living in institutional group quarters.

¹¹ Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates from the National Health Interview Survey, July-December, 2014. National Center for Health Statistics. Jun 2015.

Table 1: Sample Demographics

	<u>Parameter</u>	<u>Unweighted</u>	<u>Weighted</u>
<u>Gender</u>			
Male	48.3	52.5	49.3
Female	51.7	47.5	50.7
<u>Age</u>			
18-24	13.1	9.8	13.3
25-34	17.4	14.1	17.6
35-44	16.9	13.7	16.8
45-54	18.1	17.3	17.9
55-64	16.3	19.3	16.2
65+	18.2	25.9	18.2
<u>Education</u>			
HS Graduate or Less	41.2	31.1	40.2
Some College/Assoc. Degree	31.5	25.4	31.6
College Graduate	27.3	43.5	28.2
<u>Race/Ethnicity</u>			
White/not Hispanic	65.7	69.4	65.5
Black/not Hispanic	11.6	10.4	11.5
Hispanic - U.S. born	7.6	6.5	7.6
Hispanic - born outside	7.4	6.7	7.5
Other/not Hispanic	7.7	7.0	7.9
<u>Region</u>			
Northeast	18.2	16.6	18.0
Midwest	21.3	22.9	21.4
South	37.2	37.5	37.6
West	23.3	23.0	22.9
<u>County Pop. Density</u>			
1 - Lowest	19.9	22.1	20.1
2	20.0	19.9	20.0
3	20.1	20.9	20.3
4	20.0	20.0	20.1
5 - Highest	20.0	17.0	19.4
<u>Household Phone Use</u>			
LLO	7.4	3.6	5.8
Dual	44.8	57.9	45.9
CPO	47.8	38.5	48.3

Effects of Sample Design on Statistical Inference

Post-data collection statistical adjustments require analysis procedures that reflect departures from simple random sampling. PSRAI calculates the effects of these design features so that an appropriate adjustment can be incorporated into tests of statistical significance when using these data. The so-called "design effect" or *deff* represents the loss in statistical efficiency that results from systematic non-response. The total sample design effect for this survey is 1.28.

PSRAI calculates the composite design effect for a sample of size *n*, with each case having a weight, *w_i* as:

$$deff = \frac{n \sum_{i=1}^n w_i^2}{\left(\sum_{i=1}^n w_i \right)^2} \quad \text{formula 1}$$

In a wide range of situations, the adjusted standard error of a statistic should be calculated by multiplying the usual formula by the square root of the design effect (\sqrt{deff}). Thus, the formula for computing the 95% confidence interval around a percentage is:

$$\hat{p} \pm \left(\sqrt{deff} \times 1.96 \sqrt{\frac{\hat{p}(1-\hat{p})}{n}} \right) \quad \text{formula 2}$$

where \hat{p} is the sample estimate and *n* is the unweighted number of sample cases in the group being considered.

The survey's margin of error is the largest 95% confidence interval for any estimated proportion based on the total sample – the one around 50%. For example, the margin of error for the entire sample is ± 2.1 percentage points. This means that in 95 out every 100 samples drawn using the same methodology, estimated proportions based on the entire sample will be no more than 2.1 percentage points away from their true values in the population. It is important to remember that sampling fluctuations are only one possible source of error in a survey estimate. Other sources, such as respondent selection bias, questionnaire wording and reporting inaccuracy, may contribute additional error of greater or lesser magnitude.

RESPONSE RATE

Table 2 reports the disposition of all sampled telephone numbers ever dialed from the original telephone number samples. The response rate estimates the fraction of all eligible sample that was ultimately interviewed. Response rates are computed according to American Association for Public Opinion Research standards.¹² Thus the response rate for both the landline and cellular samples was 9%.

¹² The American Association for Public Opinion Research. 2011. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 7th edition. AAPOR.

Table 2. Sample Disposition

Landline	Cell	
3,139	594	OF = Out of Frame
3,128	594	Non-residential/Business
11	---	Cell in landline frame
33,517	8,371	NWC = Not working/computer
32,046	8,355	Not working
1,471	16	Computer/fax/modem
2,979	545	UHUO _{NC} = Non-contact, unknown if household/unknown other
3,169	6,632	UO _{NC} = Non-contact, unknown eligibility
3,114	6,607	Voice mail
55	25	Other non-contact
6,111	18,424	UO _R = Refusal, unknown if eligible
5,883	10,285	Refusals
228	8,139	Callbacks
43	103	O = Other
---	896	SO = Screen out
---	896	Child's cellphone
423	638	R = Refusal, known eligible
963	1,789	I = Completed interviews
50,344	37,992	T = Total numbers sampled
22.6%	76.1%	$e1 = (I+R+SO+O+UO_R+UO_{NC})/(I+R+SO+O+UO_R+UO_{NC}+OF+NWC)$ - Est. frame eligibility of non-contacts
100.0%	73.0%	$e2 = (I+R)/(I+R+SO)$ - Est. screening eligibility of unscreened contacts
66.2%	75.6%	$CON = [I + R + (e2*[O + UO_R])]/[I + R + (e2*[O + UO_R + UO_{NC}]) + (e1*e2*UHUO_{NC})]$
12.8%	11.2%	$COOP = I/[I + R + (e2*[O + UO_R])]$
8.5%	8.5%	AAPOR RR3 = $I/[I+R+(e2*(UO_R+UO_{NC}+O))+[e1*e2*UHUO_{NC}]] = CON*COOP$

Topline Questionnaire

Educational Ecosystem Survey 2015

Final Topline

11/17/2015

Data for Oct. 13-Nov. 15, 2015

Princeton Survey Research Associates International for
Pew Research Center's Internet, Science & Technology Project

Sample: n=2,752 adults age 18 or older nationwide, including 1,789 cellphone interviews
Interviewing dates: 10.13.2015 – 11.15.2015

Margin of error: ± 2.1 percentage points for results based on Total [n=2,752]

Margin of error: ± 2.3 percentage points for results based on internet users [n=2,428]

Margin of error: ± 2.2 percentage points for results based on cellphone owners [n=2,606]

Margin of error: ± 2.8 percentage points for results based on employed [n=1,577]

Margin of error: ± 3.5 percentage points for results based on professional learners [n=1,002]

Margin of error: ± 2.4 percentage points for results based on personal learners [n=2,121]

EMINUSE Do you use the internet or email, at least occasionally?

INTMOB Do you access the internet on a cellphone, tablet or other mobile handheld device, at least occasionally?¹³

USES INTERNET	DOES NOT USE INTERNET
---------------	--------------------------

¹³ The definition of an internet user varies from survey to survey. Prior to January 2005, internet users were defined as those who said yes to "Do you ever go online to access the Internet or World Wide Web or to send and receive email?" From January 2005 thru February 2012, an internet user is someone said yes to either "Do you use the internet, at least occasionally?" (INTUSE) OR "Do you send or receive email, at least occasionally?" (EMLOCC). From April 2012 thru December 2012, an internet user is someone said yes to any of three questions: INTUSE, EMLOCC or "Do you access the internet on a cellphone, tablet or other mobile handheld device, at least occasionally?" (INTMOB). In May 2013, half the sample was asked INTUSE/EMLOCC/INTMOB and half was asked EMINUSE/INTMOB. Those May 2013 trend results are for both forms combined.

Current	87	13
July 2015 ⁱ	87	13
April 2015 ⁱⁱ	85	15
September 2013 ⁱⁱⁱ	86	14
August 2013 ^{iv}	80	20
May 2013 ^v	85	15
December 2012 ^{vi}	81	19
November 2012 ^{vii}	85	15
September 2012 ^{viii}	81	19
August 2012 ^{ix}	85	15
April 2012 ^x	82	18
February 2012 ^{xi}	80	20
December 2011 ^{xii}	82	18
August 2011 ^{xiii}	78	22
May 2011 ^{xiv}	78	22
January 2011 ^{xv}	79	21
December 2010 ^{xvi}	77	23
November 2010 ^{xvii}	74	26
September 2010 ^{xviii}	74	26
May 2010 ^{xix}	79	21
January 2010 ^{xx}	75	25
December 2009 ^{xxi}	74	26
September 2009 ^{xxii}	77	23
April 2009 ^{xxiii}	79	21
December 2008 ^{xxiv}	74	26
November 2008 ^{xxv}	74	26
August 2008 ^{xxvi}	75	25
July 2008 ^{xxvii}	77	23
May 2008 ^{xxviii}	73	27
April 2008 ^{xxix}	73	27
January 2008 ^{xxx}	70	30
December 2007 ^{xxxi}	75	25
September 2007 ^{xxxii}	73	27
February 2007 ^{xxxiii}	71	29
December 2006 ^{xxxiv}	70	30
November 2006 ^{xxxv}	68	32
August 2006 ^{xxxvi}	70	30
April 2006 ^{xxxvii}	73	27
February 2006 ^{xxxviii}	73	27
December 2005 ^{xxxix}	66	34
September 2005 ^{xl}	72	28
June 2005 ^{xli}	68	32
February 2005 ^{xlii}	67	33
January 2005 ^{xliiii}	66	34
Nov 23-30, 2004 ^{xliv}	59	41
November 2004 ^{xlv}	61	39
July 2004 ^{xlvi}	67	33

June 2004 ^{xlvi}	63	37
March 2004 ^{xlvi}	69	31
February 2004 ^{xlvi}	63	37
November 2003 ^l	64	36
August 2003 ^{li}	63	37
June 2003 ^{lii}	62	38
May 2003 ^{liii}	63	37
March 3-11, 2003 ^{liv}	62	38
February 2003 ^{lv}	64	36
December 2002 ^{lvi}	57	43
November 2002 ^{lvii}	61	39
October 2002 ^{lviii}	59	41
September 2002 ^{lix}	61	39
July 2002 ^{lx}	59	41
March/May 2002 ^{lxi}	58	42
January 2002 ^{lxii}	61	39
December 2001 ^{lxiii}	58	42
November 2001 ^{lxiv}	58	42
October 2001 ^{lxv}	56	44
September 2001 ^{lxvi}	55	45
August 2001 ^{lxvii}	59	41
February 2001 ^{lxviii}	53	47
December 2000 ^{lxix}	59	41
November 2000 ^{lxx}	53	47
October 2000 ^{lxxi}	52	48
September 2000 ^{lxxii}	50	50
August 2000 ^{lxxiii}	49	51
June 2000 ^{lxxiv}	47	53
May 2000 ^{lxxv}	48	52

HOME3NW Do you ever use the internet or email at HOME?¹⁴

Based on all internet users [N=2,428]

YES	NO	(VOL.) DON'T KNOW	(VOL.) REFUSED
-----	----	----------------------	-------------------

¹⁴ April 2015 trend includes respondents who use a social networking site or app. Unless otherwise indicated, question wording was: "Do you ever use the internet or email at HOME?" July 2015 question wording was: "Do you currently subscribe to internet service at HOME?" December 2012 question wording was: "Do you ever use the internet AT HOME?" January 2011 and May 2011 question wording was: "Do you ever use the internet or email from home?" December 2010 and earlier trend wording was follows: "About how often do you use the internet or email from... HOME - several times a day, about once a day, 3-5 days a week, 1-2 days a week, every few weeks, less often or never?" Results shown here for "YES" reflect combined "Several times a day," "About once a day," "3-5 days a week," "1-2 days a week," "Every few weeks," and "Less often" responses. Results shown here for "NO" reflect "Never" responses.

Current	90	10	0	*
July 2015	84	16	*	0
April 2015	89	11	*	0
September 2013	90	10	*	*
August 2013	89	11	0	0
May 2013	90	10	0	*
December 2012	90	10	0	0
November 2012	90	10	0	*
April 2012	89	11	0	0
February 2012	90	10	*	*
August 2011	90	10	0	0
May 2011	88	12	0	*
January 2011	89	11	*	0
December 2010	95	4	*	*
November 2010	95	4	*	*
September 2010	95	5	*	*
May 2010	94	6	*	*
January 2010	94	6	*	*
December 2009	93	6	*	*
September 2009	92	6	*	*
April 2009	91	8	*	*
December 2008	92	6	*	*
November 2008	93	7	*	*
August 2008	93	7	*	--
July 2008	93	7	*	--
May 2008	95	6	*	--
December 2007	94	7	*	--
September 2007	93	6	*	--
February 2007	95	5	*	--
November 2006	93	7	*	--
February 2006	94	6	*	--
June 2005	90	10	*	--
July 2004	94	7	*	--
March 2004	92	8	*	--

BBHOME1 Do you subscribe to dial-up internet service at home... OR do you subscribe to a higher-speed broadband service such as DSL, cable, or fiber optic service?¹⁵

BBHOME2 [ASK IF BBHOME1=DIAL-UP:] Just to confirm, you use a dial-up connection to the internet at home, and not a higher-speed broadband connection?

Based on those who use the internet at home

	DIAL-UP	HIGHER SPEED	(VOL.) BOTH DIAL-UP AND HIGHER SPEED	(VOL.) ACCESS NET ON CELL OR TABLET ONLY	(VOL.) NO HOME NET ACCESS	(VOL.) NONE OF THE ABOVE ¹⁶	(VOL.) DK	(VOL.) REF.
Current [N=2,217]	3	84	1	4	3	n/a	5	1
July 2015 [N=1,509]	3	91	1	*	1	n/a	4	*
April 2015 [N=1,544]	6	85	*	2	2	n/a	4	1
Sept 2013 [N=4,875]	3	91	n/a	3	1	*	2	*
May 2013 [N=1,727]	4	92	n/a	1	1	*	2	*
Dec 2012 [N=1,645]	4	90	n/a	2	*	*	3	1
Nov 2012 [N=1,770]	4	88	n/a	2	*	*	4	*
April 2012 [N=1,631]	4	90	n/a	1	*	*	4	*
Feb 2012 [N=1,572]	4	90	n/a	2	*	1	3	*
Aug 2011 [N=1,565]	5	89	n/a	1	1	1	3	*
May 2011 [N=1,518]	6	88	n/a	n/a	n/a	1	3	1
Jan 2011 [N=1,610]	4	88	n/a	n/a	n/a	2	4	1
Dec 2010 [N=1,731]	6	85	n/a	n/a	n/a	2	6	2
Nov 2010 [N=1,560]	6	86	n/a	n/a	n/a	2	4	2
Sept 2010 [N=1,947]	7	86	n/a	n/a	n/a	2	4	1
May 2010 [N=1,659]	7	86	n/a	n/a	n/a	2	4	1
Jan 2010 [N=1,573]	7	88	n/a	n/a	n/a	1	3	1
Dec 2009 [N=1,582]	9	86	n/a	n/a	n/a	2	4	1
Sept 2009 [N=1,584]	7	87	n/a	n/a	n/a	2	3	2
April 2009 [N=1,567]	9	86	n/a	n/a	n/a	2	3	1
Dec 2008 [N=1,538]	13	80	n/a	n/a	n/a	1	5	--
Nov 2008 [N=1,481]	12	82	n/a	n/a	n/a	1	5	--
Aug 2008 [N=1,543]	13	81	n/a	n/a	n/a	1	5	--
July 2008 [N=1,797]	14	81	n/a	n/a	n/a	1	4	--
May 2008 [N=1,463]	15	79	n/a	n/a	n/a	1	5	--
Dec 2007 [N=1,483]	18	77	n/a	n/a	n/a	1	3	--
Sept 2007 [N=1,575]	20	73	n/a	n/a	n/a	1	6	--
Feb 2007 [N=1,406]	23	70	n/a	n/a	n/a	1	6	--
Aug 2006 [N=1,787]	28	68	n/a	n/a	n/a	1	3	--

BBHOME1/BBHOME2 continued...

¹⁵ In July 2015, question was asked of home internet subscribers. In April 2015, question wording was: "Is your internet connection AT HOME through a slow-speed link such as dial-up... OR do you have a high-speed, broadband link" Prior to April 2015, trends asked about specific types of home broadband connections such as DSL, cable modem, wireless broadband/satellite, fiber optic, T-1 or other high-speed access.

¹⁶ May 2011 and earlier trend percentages for "None of the above" reflect "Other (SPECIFY)" responses.

BBHOME1/BBHOME2 continued...

	DIAL-UP	HIGHER SPEED	(VOL.) BOTH DIAL-UP AND HIGHER SPEED	(VOL.) ACCESS NET ON CELL OR TABLET ONLY	(VOL.) NO HOME NET ACCESS	(VOL.) NONE OF THE ABOVE ¹⁷	(VOL.) DK	(VOL.) REF.
Dec 2005 [N=1,715]	35	61	n/a	n/a	n/a	1	3	--
June 2005 [N=1,204]	44	53	n/a	n/a	n/a	1	1	--
Feb 2005 [N=1,287]	47	50	n/a	n/a	n/a	1	3	--
Jan 2005 [N=1,261]	48	50	n/a	n/a	n/a	1	1	--
Feb 2004 [N=1,241]	55	42	n/a	n/a	n/a	1	2	--
Nov 2003 [N=1,199]	62	35	n/a	n/a	n/a	1	2	--

SUMMARY OF HOME BROADBAND

Based on those who use the internet at home

	current		July 2015
%	85	Home broadband users	92
	15	No home broadband/DK	8
	[N=2,217]		[N=1,509]

Based on Total

	current		July 2015
%	67	Home broadband users	67
	33	No home broadband/DK	33

DEVICE1a Next, do you have a cellphone, or not?¹⁸

	yes	no	(VOL.) Don't know	(VOL.) Refused
Current	91	9	0	0
July 2015	92	8	*	*
April 2015	92	8	*	0
Sept 2013	91	9	0	0
August 2013	89	11	0	0
May 2013	91	9	0	*
December 2012	87	13	*	0
November 2012	85	15	0	*
Sept 2012	85	15	*	0
August 2012	89	10	0	*

¹⁷ May 2011 and earlier trend percentages for "None of the above" reflect "Other (SPECIFY)" responses.

¹⁸ Question was asked of landline sample only. Results shown here have been recalculated to include cellphone sample in the "Yes" percentage. Beginning September 2007, question/item was not asked of the cellphone sample, but trend results shown here reflect Total combined landline and cellphone sample. In past polls, question was sometimes asked as an independent question and sometimes as an item in a series. Wording may vary from survey to survey. Wording variations include: "Do you have a cellphone or a Blackberry or iPhone or other device that is also a cellphone?"; "Do you have...a cellphone or a Blackberry or iPhone or other handheld device that is also a cellphone?"; "Do you have a cellphone, or a Blackberry or other device that is also a cellphone?"; "Do you happen to have a cellphone?"; "Do you have a cellphone?"

April 2012	88	12	*	*
February 2012	88	12	0	*
December 2011	87	13	0	*
August 2011	84	15	*	*
May 2011	83	17	*	0
January 2011	84	16	*	*
December 2010	81	19	*	*
November 2010	82	18	0	*
September 2010	85	15	*	*
May 2010	82	18	*	0
January 2010	80	20	0	*
December 2009	83	17	0	*
September 2009	84	15	*	*
April 2009	85	15	*	*
Dec 2008	84	16	*	*
July 2008	82	18	*	--
May 2008	78	22	*	0
April 2008	78	22	*	--
January 2008	77	22	*	--
Dec 2007	75	25	*	--
Sept 2007	78	22	*	--
April 2006	73	27	*	--
January 2005	66	34	*	--
Nov. 23-30, 2004	65	35	*	--

SMART1 Some cellphones are called "smartphones" because of certain features they have. Is your cellphone a smartphone such as an iPhone, Android, Blackberry or Windows phone, or are you not sure?¹⁹

Based on cellphone owners

YES, SMARTPHONE	NO, NOT A SMARTPHONE	NOT SURE/ DON'T KNOW	(VOL.) REFUSED
--------------------	-------------------------	-------------------------	----------------

¹⁹ Wording may vary from survey to survey. Wording variations include: "Some cellphones are called "smartphones" because of certain features they have. Is your cellphone a smartphone, such as an iPhone, Android, Blackberry or Windows phone, or are you not sure?"; "Some cellphones are called "smartphones" because of certain features they have. Is your cellphone a smartphone or not, or are you not sure?"

Current [N=2,606]	76	17	7	*
July 2015 [N=1,903]	73	20	7	*
April 2015 [N=1,900]	73	21	5	*
September 2013 [N=5,763]	61	32	7	*
August 2013 [N=1,636]	60	33	6	*
May 2013 [N=2,076]	55	39	5	*
December 2012 [N=1,954]	52	41	6	*
November 2012 [N=1,992]	55	38	6	*
September 2012 [N=2,581]	53	40	6	*
April 2012 [N=1,954]	46	44	10	*
February 2012 [N=1,961]	45	46	8	*
May 2011 [N=1,914]	33	53	14	*

Q2 Now I'd like to know how important, if at all, you think it is for people to make an effort to learn new things in some different areas of life. [FOR FIRST TWO RANDOMIZED ITEMS: (First,/Next,) do you think it is very important, somewhat important, not too important, or not at all important for people to make an effort to learn NEW things related to [INSERT ITEMS; RANDOMIZE]?]

[FOR REMAINING ITEMS: How about learning NEW things related to [INSERT NEXT ITEM]? [READ AS NECESSARY: Do you think it is very important, somewhat important, not too important, or not at all important for people to make an effort to learn NEW things related to (ITEM)?]]

	VERY IMPT.	SOME- WHAT IMPT.	NOT TOO IMPT.	NOT AT ALL IMPT.	(VOL.) DK	(VOL.) REFUSED
a. Their jobs	87	10	1	1	1	1
b. Their hobbies or interests	58	36	3	1	1	1
c. Things happening in society, such as developments in science, technology, entertainment, or culture	69	26	2	1	*	1
NO ITEM D						
e. Their local community	70	26	2	1	*	1

[READ TO ALL:] Now I'd like to ask you some questions about how you approach different situations when you want to learn something new.

Q3 How well do each of the following statements describe you? How about this statement: [INSERT ITEMS; RANDOMIZE]. [READ FOR FIRST ITEM, THEN AS NECESSARY: Does this describe you very well, somewhat well, not too well, or not well at all?] Next: [INSERT NEXT ITEM].

	A) VERY WELL	B) SOMEWHAT WELL	C) NOT TOO WELL	D) NOT WELL AT ALL	E) (VOL.) STILL IN SCHOOL	F) (VOL.) DK	G) (VOL.) REFUSED
a. I often find myself looking for new opportunities to grow as a person.	58	31	6	4	n/a	*	*
b. I am not the type of person who feels the need to probe deeply into new situations or things.	13	30	22	33	n/a	1	1
c. I like to gather as much information as I can when I come across something that I am not familiar with.	61	31	5	3	n/a	*	*
d. I am easily distracted when I try to concentrate.	16	28	23	33	n/a	*	*
e. I am really glad I am no longer in school and don't have to go to classes anymore.	31	20	16	25	7	1	1
f. I think of myself as a lifelong learner.	73	20	4	3	n/a	*	*

[READ TO ALL:] On a different subject...

EMPLNW3 Are you now employed full-time, part-time, or are you not employed for pay?

current	
%	45
	Employed full-time
	13
	Employed part-time
	42
	Not employed for pay
*	(VOL.) Don't know
*	(VOL.) Refused

STUD Are you currently enrolled as a full- or part-time student, or not? [IF YES, PROBE TO DETERMINE FT OR PT]

	current	
%	9	Yes, full-time
	6	Yes, part-time
	85	No
	0	(VOL.) Don't know
	*	(VOL.) Refused

EDInst Are you enrolled... [READ]

Based on students [N=334]

	current	
%	3	In high school
	49	As an undergraduate at a college or university
	14	As a graduate student at a university
	17	At a community college
	12	At a technical, trade or vocational school
	3	(VOL.) Other (SPECIFY)
	*	(VOL.) Don't know
	1	(VOL.) Refused

Q4 Are you enrolled in or participating in an online course, whether it is for credit or not?

Based on students [N=334]

	current	
%	33	Yes
	67	No
	0	(VOL.) Don't know
	*	(VOL.) Refused

Q5 In the past 5 years, have you personally been laid off from a job or experienced unemployment, or not?

	current	
%	22	Yes
	77	No
	*	(VOL.) Don't know
	*	(VOL.) Refused

[READ TO EMPLOYED:] For these next few questions, please think about your MAIN job – that is, the one where you spend the most time.

Q6 Do you think of your current job as a career, a stepping stone to a career, or do you think of it as just a job to get you by?

Based on employed [N=1,577]

	Career	Stepping Stone to career	Just a job to get by	(VOL.) DK	(VOL.) REF
Current	55	17	27	1	1
<u>PEW RESEARCH CENTER TRENDLINE²⁰</u>					
October 2013	50	17	32	1	--
December 2011	44	19	35	2	--
January 2010	51	18	29	2	--

No question Q7

Q8 What is the minimum level of education required for your current job? [READ]

Based on employed [N=1,577]

current		
%	9	A Master's or other post-graduate degree
	21	A four-year college degree
	10	An associate's degree
	39	A high school diploma or GED
	11	Some other kind of certification
	8	(VOL.) No minimum level of education or certification required
	2	(VOL.) Don't know
	*	(VOL.) Refused

²⁰ Unless otherwise indicated, all trends for this question are from the Pew Research Center's Social and Demographic Trends project. Sample sizes for trends may vary from poll to poll.

[READ TO EMPLOYED:] Now, turning to questions about the way some people might be interested in learning...

Q9 [FOR FIRST TWO RANDOMIZED ITEMS: Have you taken a class or gotten extra training in the past 12 months [INSERT ITEMS; RANDOMIZE], or haven't you done this?]

[FOR REMAINING ITEMS: How about [INSERT NEXT ITEM]? [READ IF NECESSARY: Have you taken a class or gotten extra training in the past 12 months (ITEM), or haven't you done this?]]

Based on employed [N=1,577]

	YES	NO	(VOL.) DK	(VOL.) REFUSED
a. To learn, maintain or improve job skills	55	45	*	*
b. To help you get a raise or promotion at work	24	75	*	*
c. To help you get a new job with a different employer	13	86	*	*
d. For a license or certification needed for your job	36	64	*	0
e. Because you were worried about possible downsizing where you work	7	92	*	*

Q10 Here is a list of places where people sometimes take classes or get training for their career or job. [FOR FIRST TWO RANDOMIZED ITEMS: Did you take classes or get training [INSERT ITEMS; RANDOMIZE; 'SOME OTHER PLACE' ALWAYS LAST]?] [FOR REMAINING ITEMS: How about... [INSERT NEXT ITEM]? [IF NECESSARY: Did you take classes or get training (ITEM)?]]

Based on professional learners [N=1,002]²¹

YES	NO	(VOL.) DK	(VOL.) REF.
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²¹ Professional learners are defined as employed respondents who have taken any courses or training for their job in the past 12 months ("yes" to any Q9 item).

a.	At your workplace	75	25	0	0
b.	At home	37	62	*	*
c.	At a training or education facility offsite from your workplace, including a hotel	48	52	*	0
d.	At a convention or conference related to your field	43	57	0	0
e.	At a library	9	91	0	0
NO ITEM F					
g.	At a government agency	21	79	*	*
NO ITEM H					
i.	On the internet	55	44	*	*
j.	At some other place I haven't mentioned (SPECIFY)	14	84	1	*

Q11 How much of the training or knowledge did you gain online, using a computer, tablet or smartphone? Did you get all of it, most of it, only some of it, or none of it online?

Based on professional learners [N=1,002]

	current	
%	10	All of it online
	22	Most of it online
	44	Only some of it online
	25	None of it online
	*	(VOL.) Don't know
	*	(VOL.) Refused

Q12 Still thinking about the courses and training you have taken in the past 12 months related to your job or career... Did the classes and training [INSERT ITEMS; RANDOMIZE], or not?

Based on professional learners [N=1,002]

YES	NO	(VOL.) DK	(VOL.) REFUSED
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a. Expand your professional network	65	35	*	*
b. Enable you to find a new job, whether that's with your current organization or a different one	29	70	*	*
c. Help you consider a different career path	27	73	*	0
d. Help you advance within your current company or organization	47	53	*	*

[READ TO ALL:] Next I have a few questions related to your PERSONAL INTERESTS, outside of a job or work. This might include interests related to a hobby, your home, health, religion, your community or other areas of personal interest to you.

Q13 [FOR FIRST TWO RANDOMIZED ITEMS: In the past 12 months, have you [INSERT ITEMS; RANDOMIZE]?]

[FOR REMAINING ITEMS: Have you [INSERT NEXT ITEM]? [IF NECESSARY: Have you done this in the past 12 months, or not?]]

	YES	NO	(VOL.) DK	(VOL.) REFUSED
a. Taken a course related to your personal interest or hobbies	25	75	*	*
b. Read how-to magazines, consumer magazines, or other publications related to some area of personal interest	58	41	*	*
c. Attended a meeting where you learned new information such as a book club, a sports club, arts club or a health-related support group	35	65	*	*
NO ITEM D				
e. Attended a convention or conference where you learned about something of personal interest, like a garden show, a car show, a science fiction convention, or a music conference	30	70	0	*
f. Taken an online course	16	83	*	0

No question Q14

- Q15** Thinking about the learning activities or the courses you have taken for a personal interest, where did these learning activities take place? Did you do this [INSERT ITEMS; RANDOMIZE; 'SOME OTHER PLACE' ALWAYS LAST]? How about [INSERT NEXT ITEM]? [IF NECESSARY: Did any of these learning activities or courses for a personal interest take place (ITEM)?]

Based on personal learners [N=2,121]²²

	YES	NO	(VOL.) DK	(VOL.) REF.
a. At a library	23	76	*	0
b. At a high school, community college, or university	35	65	*	*
c. At a community center or museum	29	71	*	0
d. At a church, temple, or synagogue	26	74	*	0
e. On the internet	52	48	*	*
f. At some other place I haven't mentioned (SPECIFY)	31	67	2	*

- Q16** Again, thinking about these learning activities or courses you took in the past 12 months related to a personal interest, how much of this took place online using a computer, tablet or smartphone? Please include any material you got from instructional or how-to videos. Did you do all of the learning online, most of it, only some of it, or none of it online?

Based on personal learners [N=2,121]

	current	
%	10	All of it online
	21	Most of it online
	39	Only some of it online
	30	None of it online
	*	(VOL.) Don't know
	*	(VOL.) Refused

²² Personal learners are defined as respondents who have done any learning activities for a personal interest in the past 12 months outside of a job or work ("yes" to any Q13 item).

Q17 Please tell me if any of the following are reasons why you pursued classes or learning activities related to your personal interests. (First,) [INSERT ITEMS; RANDOMIZE]. [READ FOR FIRST ITEM, THEN AS NECESSARY: Was that a reason, or not a reason?]

Based on personal learners [N=2,121]

	YES, REASON	NO, NOT A REASON	(VOL.) DOESN'T APPLY	(VOL.) DK	(VOL.) REF.
a. I had some extra time on my hands to pursue my interests.	60	40	*	*	*
b. I wanted to learn something that would help make my life more interesting or full.	80	19	*	*	*
c. I wanted to learn things that help me keep up with the schoolwork of my children, grandchildren, or other kids in my life.	33	66	1	*	*
d. I wanted to learn something that would allow me to help others more effectively.	64	36	*	*	*
NO ITEM E					
f. I wanted to turn my hobby into something that generates income.	36	64	*	*	*

Q18 Still thinking about learning for personal interests... [FOR FIRST TWO RANDOMIZED ITEMS: Have the classes or learning activities you've participated in [INSERT ITEMS; RANDOMIZE], or not?]

[FOR REMAINING ITEMS: How about [INSERT NEXT ITEM]? [IF NECESSARY: Have the classes or learning activities you've participated in (ITEM)?]]

Based on personal learners [N=2,121]

	YES	NO	(VOL.) DK	(VOL.) REF.
a. Opened up new perspectives about your life	69	31	*	*
b. Helped you make new friends	64	35	*	*
c. Made you feel more connected to your local community	58	42	*	*
d. Helped you feel more capable or well-rounded	87	13	*	*
e. Gotten you more involved in volunteer opportunities	43	57	*	*

[READ TO ALL:] Now I would like to ask you a few questions about how you deal with modern information and communications technology.

Q19 Please tell me how well each of the following statements describes you. First: [INSERT ITEMS; RANDOMIZE]. [READ FOR FIRST ITEM, THEN AS NECESSARY: Does this describe you very well, somewhat well, not too well, or not well at all?] Next: [INSERT NEXT ITEM].

	VERY WELL	SOMEWHAT WELL	NOT TOO WELL	NOT WELL AT ALL	(VOL.) DK	(VOL.) REFUSED
a. When I get a new electronic device, I usually need someone else to set it up or show me how to use it.	26	20	11	42	1	1
b. I am more productive because of all of my electronic information devices.	32	35	14	18	*	*
c. I find it difficult to know whether the information I find online is trustworthy.	22	38	16	23	1	1
d. Between phone calls, texts, emails, social media, or other messages, I deal with too much information in my daily life.	20	32	21	26	1	1

Q21 Please tell me how familiar, if at all, you are with the following educational resources or concepts. (First, how familiar are you with / Next,) [INSERT ITEMS; RANDOMIZE]? [READ FOR FIRST ITEM, THEN AS NECESSARY: Are you very familiar, somewhat familiar, not too familiar, or not at all familiar?]

	VERY	SOMEWHAT	NOT TOO	NOT AT ALL	(VOL.) DK	(VOL.) REF.
a. Distance learning	14	24	12	49	1	*
b. Digital badges	4	12	13	69	1	*
c. Khan Academy	9	10	10	69	1	*
d. Common core standards	14	28	15	42	1	*
e. Massively open online courses, or MOOCs – such as Coursera, edX, or Udacity	5	13	13	67	1	*

THANK RESPONDENT: Thank you very much for your time. This survey is being conducted by the Pew Research Center, which will be issuing a report on the results of this survey on their website, [pewresearch dot ORG](http://pewresearch.org), in the coming weeks.

THANK YOU again for your help! Have a nice (day/evening).

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- ⁱ July 2015 trends based on the July 2015 Tracking Survey, conducted June 10 – July 12, 2015 [N=2,001, including 1,300 cell phone interviews].
- ⁱⁱ April 2015 trends based on the Libraries Survey 2015, conducted March 17 – April 12, 2015 among those age **16 or older** [N=2,004, including 1,300 cell phone interviews].
- ⁱⁱⁱ September 2013 trends based on the Libraries Typology Survey, conducted July 18 – September 30, 2013 among those age **16 or older** [N=6,224, including 3,102 cell phone interviews].
- ^{iv} August 2013 trends based on the August Tracking 2013/Facebook Survey, conducted August 7–September 16, 2013 [N=1,801, including 900 cell phone interviews].
- ^v May 2013 trends based on the Spring Tracking Survey 2013, conducted April 17–May 19, 2013 [N=2,252, including 1,127 cell phone interviews].
- ^{vi} December 2012 trends based on the 2012 Post-Election Tracking Survey, conducted November 14–December 9, 2012 [N=2,261, including 908 cell phone interviews].
- ^{vii} November 2012 trends based on the Library Services Survey, conducted October 15 – November 10, 2012 among those age **16 or older** [N=2,252, including 1,125 cell phone interviews].
- ^{viii} September 2012 trends based on the Health Tracking Survey 2012, conducted August 7–September 6, 2012 [N=3,014, including 1,206 cell phone interviews].
- ^{ix} August 2012 trends based on the “Civic Engagement Tracking Survey” conducted July 16–August 7, 2012 [N=2,253, including 900 cell phone interviews].
- ^x April 2012 trends based on the Spring Tracking Survey 2012, conducted March 15–April 3, 2012 [N=2,254, including 903 cell phone interviews].
- ^{xi} February 2012 trends based on the Winter Tracking Survey 2012, conducted January 20–February 19, 2012 [N=2,253, including 901 cell phone interviews].
- ^{xii} December 2011 trends based on the Reading Habits Survey 2011, conducted November 16–December 21, 2011 among those age **16 or older** [n=2,986 people age 16+, including an oversample of 317 e-Reader only owners, 300 tablet computer only owners and 119 e-Reader/tablet computer owners].
- ^{xiii} August 2011 trends based on the August Tracking Survey 2011, conducted July 25 – August 26, 2011 [n=2,260, including 916 cell phone interviews].
- ^{xiv} May 2011 trends based on the Spring Tracking Survey 2011, conducted April 26 – May 22, 2011 [N=2,277, including 755 cell phone interviews].
- ^{xv} January 2011 trends based on the Pew Internet Project/Project for Excellence in Journalism/Knight Foundation “Local News survey,” conducted January 12–25, 2011 [N=2,251, including 750 cell phone interviews].
- ^{xvi} December 2010 trends based on the Social Side of the Internet survey, conducted November 23–December 21, 2010 [N=2,303, including 748 cell phone interviews].
- ^{xvii} November 2010 trends based on the Post-Election Tracking Survey 2010, conducted November 3–24, 2010 [N=2,257, including 755 cell phone interviews].
- ^{xviii} September 2010 trends based on the September Health Tracking Survey 2010, conducted August 9 – September 13, 2010 [N=3,001, including 1,000 cell phone interviews].
- ^{xix} May 2010 trends based on the Spring Change Assessment 2010 survey, conducted April 29 – May 30, 2010 [N=2,252, including 744 cell phone interviews].
- ^{xx} January 2010 trends based on the Online News survey, conducted December 28, 2009 – January 19, 2010 [N=2,259, including 562 cell phone interviews].
- ^{xxi} December 2009 trends based on the Fall Tracking “E-Government” survey, conducted November 30 – December 27, 2009 [N=2,258, including 565 cell phone interviews].

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- xxii September 2009 trends based on the September Tracking 2009 survey, conducted August 18 – September 14, 2009 [N=2,253, including 560 cell phone interviews].
- xxiii April 2009 trends based on the Spring 2009 Tracking survey, conducted March 26-April 19, 2009 [N=2,253, including 561 cell phone interviews].
- xxiv December 2008 trends based on the Fall Tracking survey, conducted November 19-December 20, 2008 [N=2,253, including 502 cell phone interviews]. Trends do not include California oversample.
- xxv November 2008 trends based on the Post-Election 2008 Tracking survey, conducted November 20-December 4, 2008 [N=2,254].
- xxvi August 2008 trends based on the August Tracking 2008 survey, conducted August 12-31, 2008 [N=2,251].
- xxvii July 2008 trends based on the Personal Networks and Community survey, conducted July 9-August 10, 2008 [N=2,512, including 505 cell phone interviews]
- xxviii May 2008 trends based on the Spring Tracking 2008 survey, conducted April 8-May 11, 2008 [N=2,251].
- xxix April 2008 trends based on the Networked Workers survey, conducted March 27-April 14, 2008. Most questions were asked only of full- or part-time workers [N=1,000], but trend results shown here reflect the total sample [N=2,134].
- xxx January 2008 trends based on the Networked Families survey, conducted December 13, 2007-January 13, 2008 [N=2,252].
- xxxi December 2007 trends based on the Annual Gadgets survey, conducted October 24-December 2, 2007 [N=2,054, including 500 cell phone interviews].
- xxxii September 2007 trends based on the Consumer Choice survey, conducted August 3-September 5, 2007 [N=2,400, oversample of 129 cell phone users].
- xxxiii February 2007 trends based on daily tracking survey conducted February 15-March 7, 2007 [N=2,200].
- xxxiv December 2006 trends based on daily tracking survey, conducted November 30 - December 30, 2006 [N=2,373].
- xxxv November 2006 trends based on Post-Election tracking survey, conducted Nov. 8-Dec. 4, 2006 [N=2,562]. This includes an RDD sample [N=2,362] and a cell phone only sample [N=200]. Results reflect combined samples, where applicable.
- xxxvi August 2006 trends based on daily tracking survey, conducted August 1-31, 2006 [N=2,928].
- xxxvii April 2006 trends based on the Annual Gadgets survey, conducted Feb. 15-Apr. 6, 2006 [N=4,001].
- xxxviii February 2006 trends based on the Exploratorium Survey, conducted Jan. 9-Feb. 6, 2006 [N=2,000].
- xxxix December 2005 trends based on daily tracking survey conducted Nov. 29-Dec. 31, 2005 [N=3,011].
- xl September 2005 trends based on daily tracking survey conducted Sept. 14-Oct.13, 2005 [N=2,251].
- xli June 2005 trends based on the Spyware Survey, conducted May 4-June 7, 2005 [N=2,001].
- xlii February 2005 trends based on daily tracking survey conducted Feb. 21-March 21, 2005 [N=2,201].
- xliii January 2005 trends based on daily tracking survey conducted Jan. 13-Feb.9, 2005 [N=2,201].
- xliv November 23-30, 2004 trends based on the October-November 2004 Activity Tracking Survey, conducted November 23-30, 2004 [N=914].
- xlv November 2004 trends based on the October-November Post-Election Tracking Survey, conducted Nov 4-Nov 22, 2004 [N=2,200].
- xlvi July 2004 trends based on the "Selective Exposure" survey, conducted June 14-July 3, 2004 [N=1,510].
- xlvii June 2004 trends based on daily tracking survey conducted May 14-June 17, 2004 [N=2,200].
- xlviii March 2004 trends based on "Weak Ties" survey conducted February 17-March 17, 2004 [N=2,200].
- xliv February 2004 trends based on daily tracking survey conducted February 3-March 1, 2004 [N=2,204].
- l November 2003 trends based on daily tracking survey conducted November 18-December 14, 2003 [N=2,013].
- li August 2003 trends based on 'E-Government' survey conducted June 25-August 3, 2003 [N=2,925].

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- ^{lii} June 2003 trends based on 'Internet Spam' survey conducted June 10-24, 2003 [N=2,200].
- ^{liii} May 2003 trends based on daily tracking survey conducted April 29-May 20, 2003 [N=1,632].
- ^{liv} March 3-11, 2003 trends based on daily tracking survey conducted March 3-11, 2003 [N=743].
- ^{lv} February 2003 trends based on daily tracking survey conducted February 12-March 2, 2003 [N=1,611].
- ^{lvi} December 2002 trends based on daily tracking survey conducted Nov. 25-Dec. 22, 2002 [N=2,038].
- ^{lvii} November 2002 trends based on daily tracking survey conducted October 30-November 24, 2002 [N=2,745].
- ^{lviii} October 2002 trends based on daily tracking survey conducted October 7-27, 2002 [N=1,677].
- ^{lix} September 2002 trends based on daily tracking survey conducted September 9-October 6, 2002 [N=2,092].
- ^{lx} July 2002 trends based on 'Sept. 11th-The Impact Online' survey conducted June 26-July 26, 2002 [N=2,501].
- ^{lxii} March/May 2002 trends based on daily tracking surveys conducted March 1-31, 2002 and May 2-19, 2002.
- ^{lxiii} January 2002 trends based on a daily tracking survey conducted January 3-31, 2002.
- ^{lxiiii} December 2001 trends represent a total tracking period of December 1-23, 2001 [N=3,214]. This tracking period based on daily tracking surveys conducted December 17-23, 2001 and November 19-December 16, 2001.
- ^{lxiv} November 2001 trends represent a total tracking period of November 1-30, 2001 [N=2,119]. This tracking period based on daily tracking surveys conducted October 19 – November 18, 2001 and November 19 – December 16, 2001.
- ^{lxv} October 2001 trends represent a total tracking period of October 1-31, 2001 [N=1,924]. This tracking period based on daily tracking surveys conducted September 20 – October 1, 2001, October 2-7, 2001, October 8-18, 2001, and October 19 – November 18, 2001.
- ^{lxvi} September 2001 trends represent a total tracking period of September 1-30, 2001 [N=742]. This tracking period based on daily tracking surveys conducted August 13-September 10, 2001, September 12-19, 2001 and September 20 – October 1, 2001.
- ^{lxvii} August 2001 trends represent a total tracking period of August 13-31, 2001 [N=1,505]. This tracking period based on a daily tracking survey conducted August 13-September 10, 2001.
- ^{lxviii} February 2001 trends based on a daily tracking survey conducted February 1, 2001-March 1, 2001 [N=2,096].
- ^{lxix} December 2000 trends based on a daily tracking survey conducted December 2-22, 2000 [N=2,383].
- ^{lxx} November 2000 trends based on a daily tracking survey conducted November 2 – December 1, 2000 [N=6,321].
- ^{lxxi} October 2000 trends based on a daily tracking survey conducted October 2 – November 1, 2000 [N=3,336].
- ^{lxxii} September 2000 trends based on a daily tracking survey conducted September 15 – October 1, 2000 [N=1,302].
- ^{lxxiii} August 2000 trends based on a daily tracking survey conducted July 24 – August 20, 2000 [N=2,109].
- ^{lxxiv} June 2000 trends based on a daily tracking survey conducted May 2 – June 30, 2000 [N=4,606].
- ^{lxxv} May 2000 trends based on a daily tracking survey conducted March 1 – May 1, 2000 [N=6,036].