

marketresponseinternational



project :: 1954

april 8 :: 2009

Information Technology Customer Research Study 2009

Quantitative Survey Research

Final Report

prepared for:

**Minnesota Governor's Council
on Developmental Disabilities**

prepared by:

marketresponseinternational

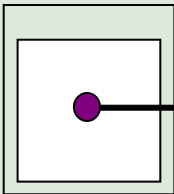


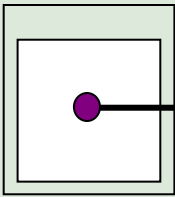
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1:: project overview



project overview

Adoption/Use of Information Technology

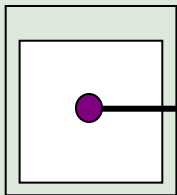
The Minnesota Governor's Council on Developmental Disabilities commissioned a survey to obtain measures of information technology adoption and use among Minnesota households that include people with developmental disabilities compared to the general population in the state of Minnesota.

This study was designed to answer three major questions:

Compared to the general population of Minnesota, do households with people with disabilities...

1. Have equal access to information technologies?
2. Use information technologies in the same ways, for the same purposes?
3. Perceive the same benefits from their use of information technologies?

The results of this study will help guide the Council in making decisions about funding to assure the continued relevance of Council information, education, and training products and services (the Council's business).

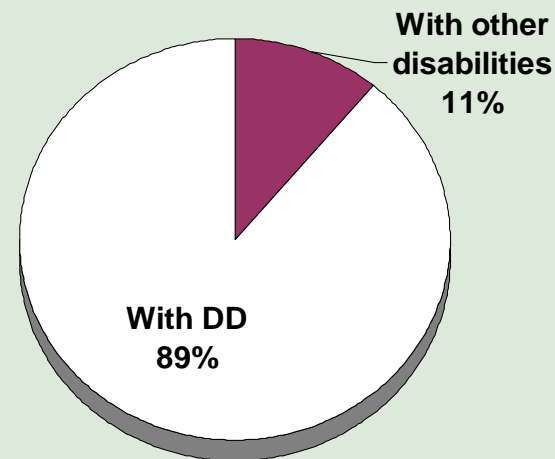
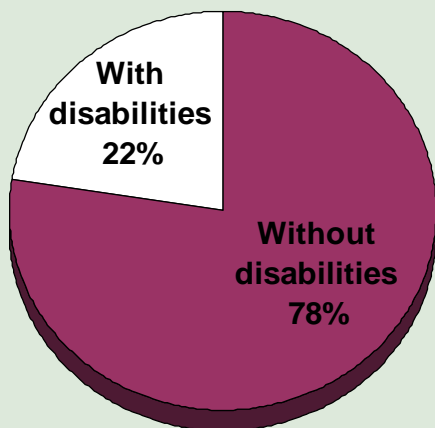


origin of respondent sample = 382 total

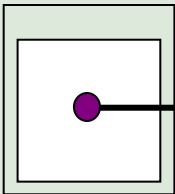


Respondents from random dial = 257n

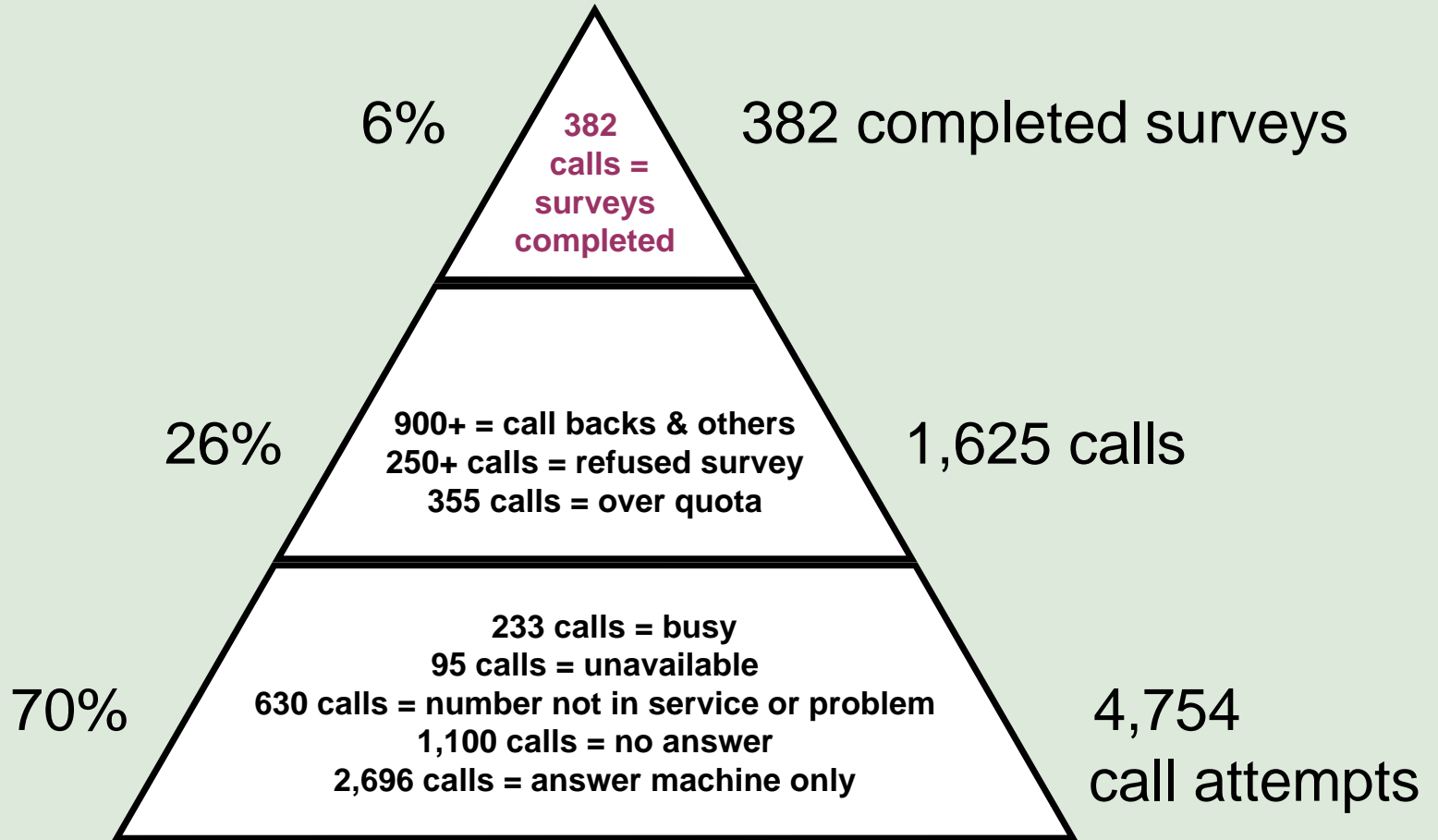
Respondents from lists and referrals = 125n



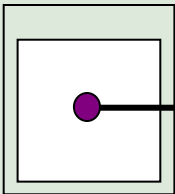
Respondent households with All Disabilities = 182n, 31% from random sources and 69% from lists and referrals. Respondent households with Developmental Disabilities = 136n, 18% from random sources and 82% from lists.



telephone survey process details



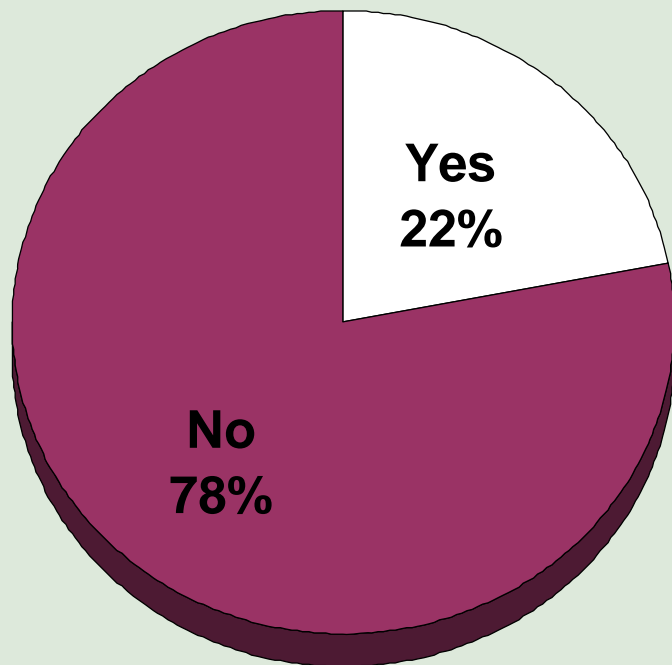
100% = 6,771 call attempts made to complete 382 telephone surveys



households with members with disabilities

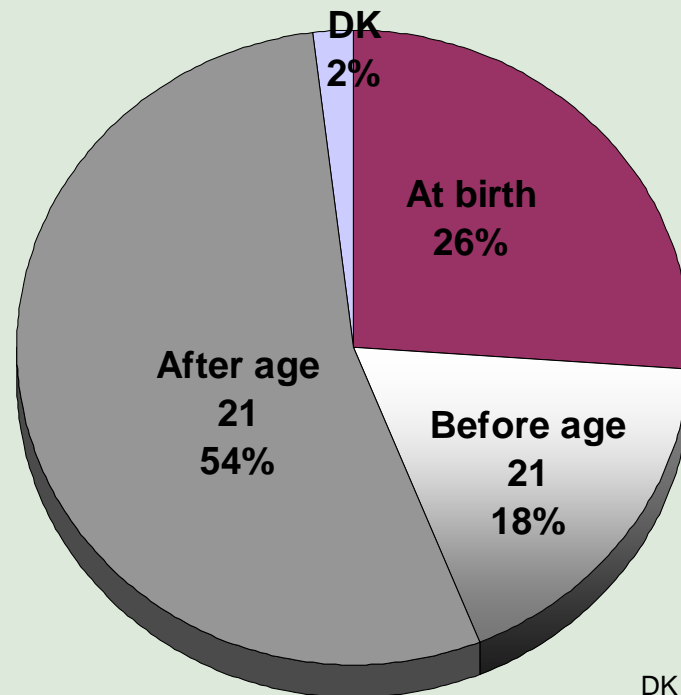
Does anyone in your household have a physical or mental disability? (QC)

(Random Base = 257)



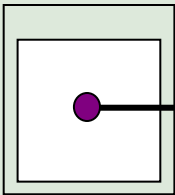
When did this disability occur? (QE)

(Random Base = 57)

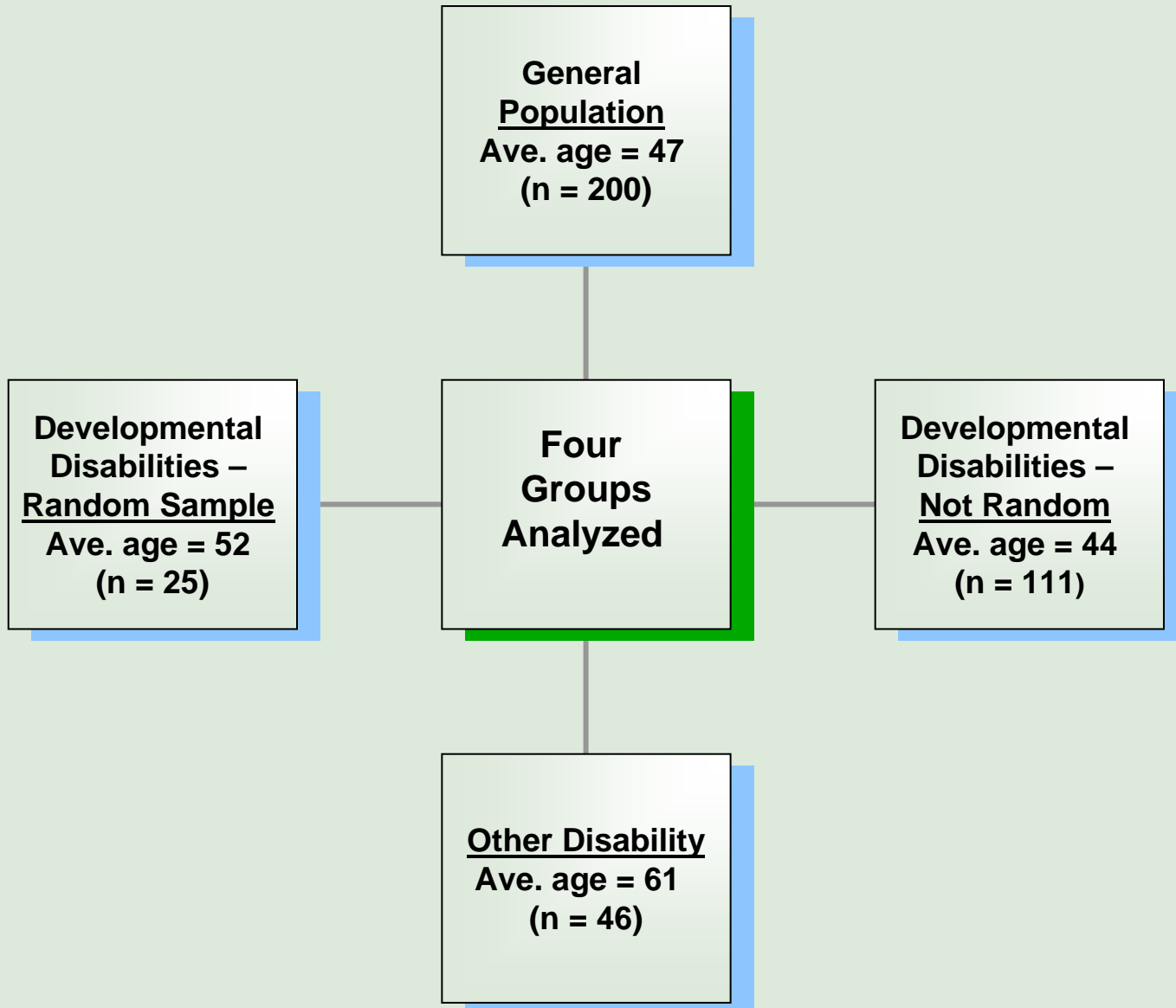


DK = Don't know

Survey respondents included households with and without people with disabilities. 22% of respondents have persons with a physical or mental disability in their households; 44% of the “disability households” were classified as developmental disabilities.

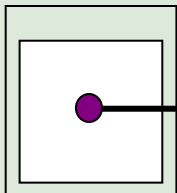


four different household respondent groups analyzed



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2:: executive summary



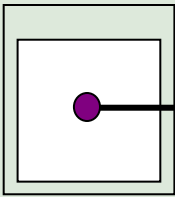
Information Technology Customer Research Study 2009

Executive Summary

The Minnesota Governor's Council on Developmental Disabilities commissioned a survey to obtain measures of information technology adoption and use among households that include people with developmental disabilities compared to the general population in the state of Minnesota. The survey was conducted by telephone and obtained representative samples of households across the state of Minnesota.

Key findings from the research were as follows:

- Two-thirds of Minnesota households have a computer with broadband Internet access; an additional 13% have dial-up Internet.
 - 14% of Minnesota households do not have a computer.
- Households where there are persons with developmental disabilities appear to have equal access to computers and the Internet, as compared to the general population of Minnesotans.
- Households where there are persons with other disabilities are less likely to own a computer and have broadband Internet access. Residents of these “other disability households” were older, on average, than all other Minnesota households, and age was negatively correlated with technology adoption.
- Residents living in rural areas were different with respect to computer ownership and Internet access;
 - Only 34% own a computer and have broadband Internet access;
 - 27% do not own a computer at all.



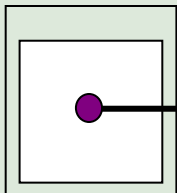
Information Technology Customer Research Study 2009 continued

- Some households where there are persons with developmental disabilities use their information technology differently than the general population:
 - More frequent daily use of their computers
 - More likely to access to government websites
 - The technology is used more for
 - o Entertainment purposes
 - o Community information / involvement
 - o Internet protocol communications
 - o Learning / online classes
 - o Lobbying / communicating with elected officials
- Although their use of government websites is higher, households where there are persons with developmental disabilities rate some attributes of government websites lower than the general population. For example, they were less likely to agree that:

Font sizes are large enough, and web pages are designed in a way that makes them easy to read.

Search function recognizes common language, and I can find what I need using this search function.

Website forms are accessible and easy to use, the formats are familiar and they don't ask for unnecessary information.



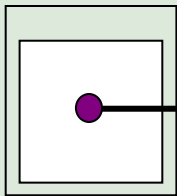
Information Technology Customer Research Study 2009 continued

- On most other attributes households with persons with developmental disabilities rated government websites equal to or higher than the general population rated them.
- Compared to the general population, households where there are persons with developmental disabilities tend to use technology more for creative self expression and to enhance inclusion in community activities.
 - They also expressed more interest in keeping up with the latest technologies and learning more about the ways in which technology devices can help them live better.
- Not all households with persons with developmental disabilities are as *far along* or *sophisticated* with their use of information technologies.

There appears to be a segment within this population that benefits more from their use of information technologies, and thus there is an opportunity for technology training and information sharing within the population of people with disabilities, to raise the general level of technology use and thereby enhance the lives of more people with disabilities.

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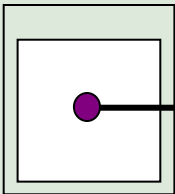
3:: detailed findings



major research questions

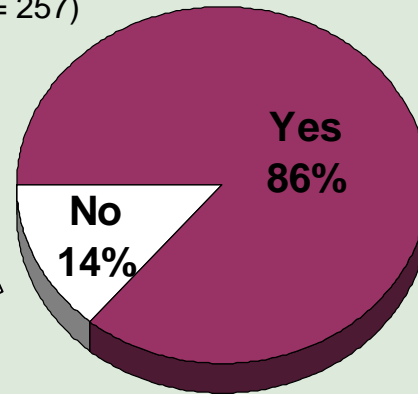
Compared to the general population of Minnesotans, do households with people with developmental disabilities. . .

- 1. Have equal access to information technologies and services?**

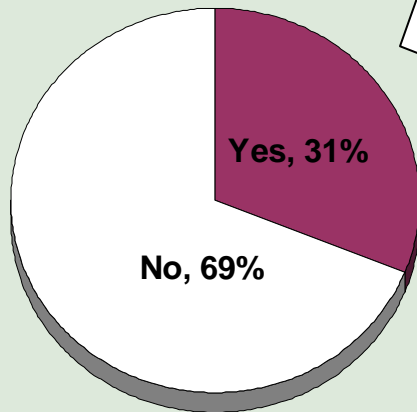


access to information technology - computers

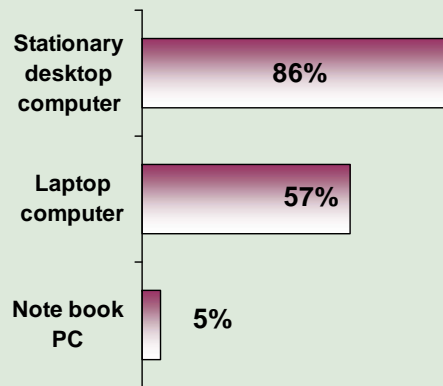
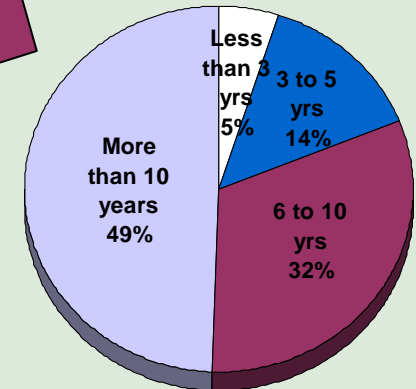
Is there a working computer in your household? (Q1)
(Base = 257)



Do you, or does anyone in your household, have access to a computer either at work, at school or at a public library or community center? (Q2) (Base = 35)

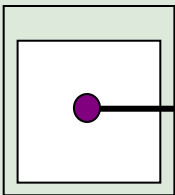


How long has there been a working computer in your household? (Q4)
(Base = 222)



How many of each of the following types of computers are in your household? Percent having 1 or more (Q3) (Base = 222)

Most Minnesotans (86%) have working computers in their household today; about 10% do not own or have access to any computer. The computer most respondents have at home is a stationary desktop.



access to technology -- computers and Internet



Total Random Sample
(n = 257)

Do **Not** have a computer **14%**

Have a computer, but no Internet **5%**

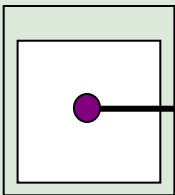
Have a computer, with dial-up Internet **13%**

Have a computer, with broadband Internet **66%**

General Population (n = 200)	Developmental Disabilities Samples			Other Disability (n=46)
	Total (n = 136)	Random (n=25)	Not Random (n=111)	
13%	6%	4% ↓	6%	22%
3%	4%	12%	3%	13% ↑
13%	7% ↓	8%	6%	13%
70%	79% ↑	72%	80%	50% ↓

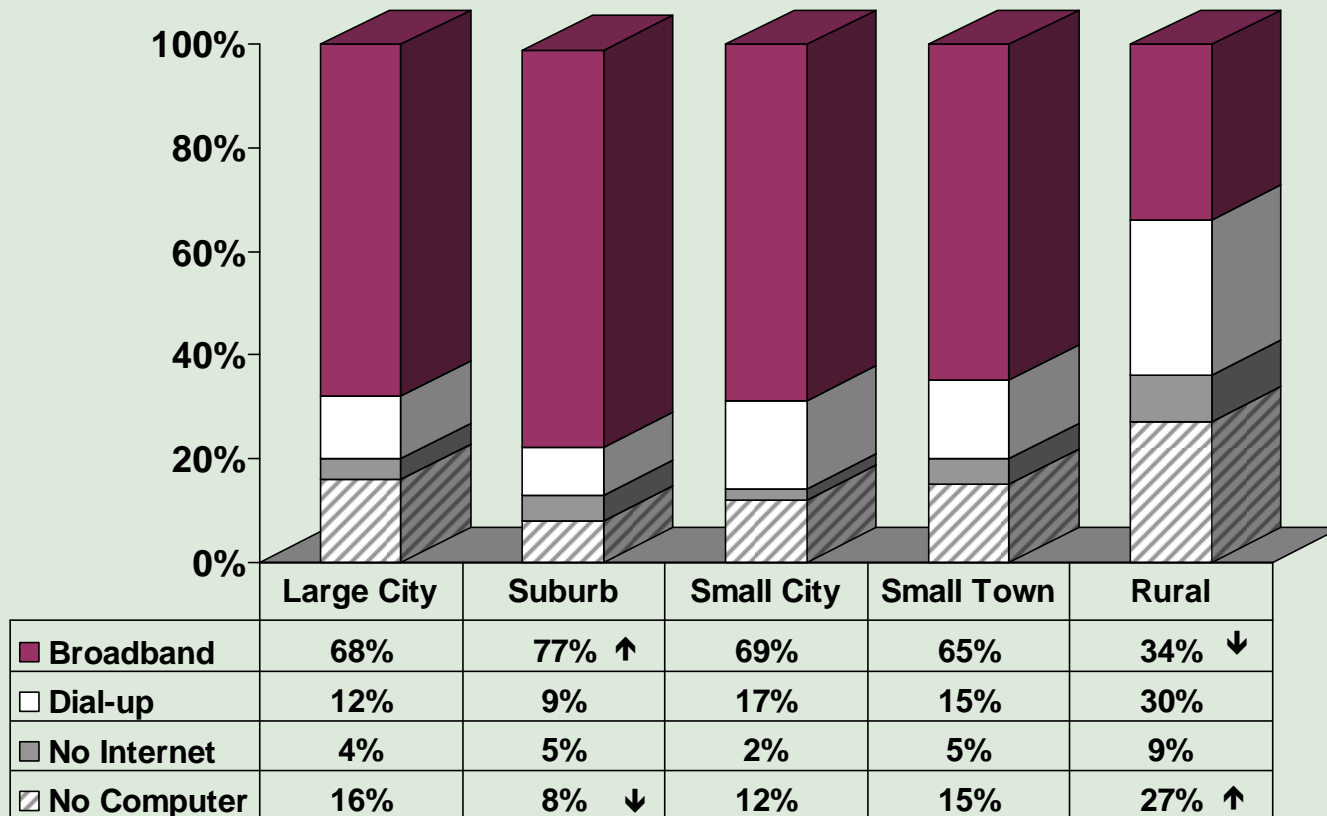
↑ ↓ Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level.

These findings do not provide any evidence that households with people with developmental disabilities have less access to computers and the Internet than the general population of Minnesotans.



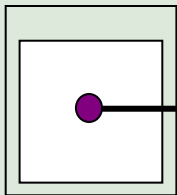
access to technology -- computers and Internet

Where respondents live by computer and access options



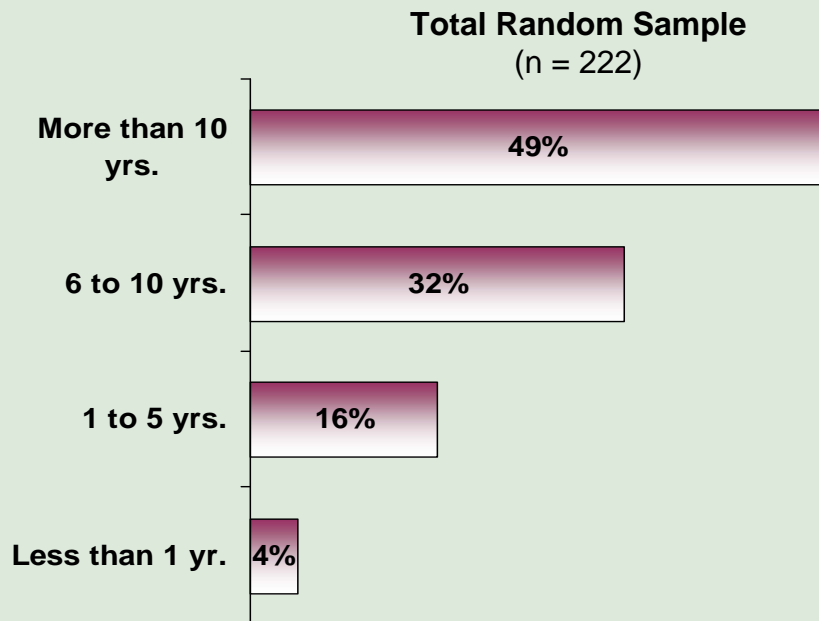
↑↓ Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level

Respondents living in rural areas are different in their computer ownership and Internet access. More than 1/4 do not have a computer. If they own a computer, about 1/3 of people in rural areas are using dial-up, more than people in other areas.



access to technology -- computers

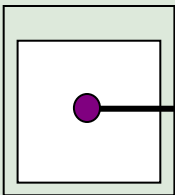
For how long has there been a working computer in your household? (Q4)



General Population (n=175)	Developmental Disabilities Samples			Other Disability (n=36)
	Total (n=128)	Random (n=24)	Not Random (n=104)	
48%	55%	71%	51%	39%
34%	26%	13%	29%	36%
15%	18%	17%	18%	17%
3%	2%	--	2%	8%

↑↓ Denotes statistically significant differences with the general population proportions, at the 90% confidence level.

It appears that households with persons with developmental disabilities have had computers for at least as long as the general population of Minnesota households.

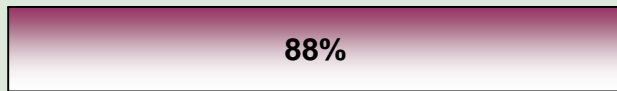


access to technology -- other devices and services

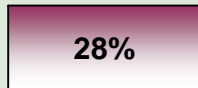


Total Random Sample (n = 257)

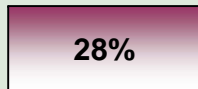
A cell phone



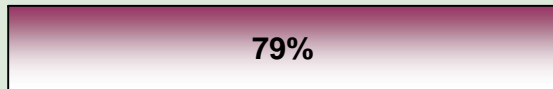
A smart mobile device
(iPhone, MP3 player,
BlackBerry, etc.)



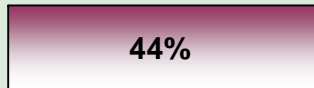
A GPS (Global
Positioning System),
typically used in an
automobile



Digital cable or satellite
television service



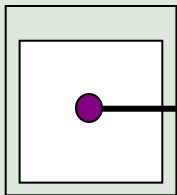
Current video game
system, such as Nintendo
Wii, Playstation 3, Xbox
360, etc.



General Population (n = 200)	Developmental Disabilities Samples			Other Disability (n=46)
	Total (n = 136)	Random (n=25)	Not Random (n=111)	
91%	93%	84%	96%	76% ↓
31%	36%	28%	38%	13% ↓
29%	27%	40%	24%	15% ↓
79%	77%	80%	76%	74%
44%	56% ↑	64% ↑	54%	22% ↓

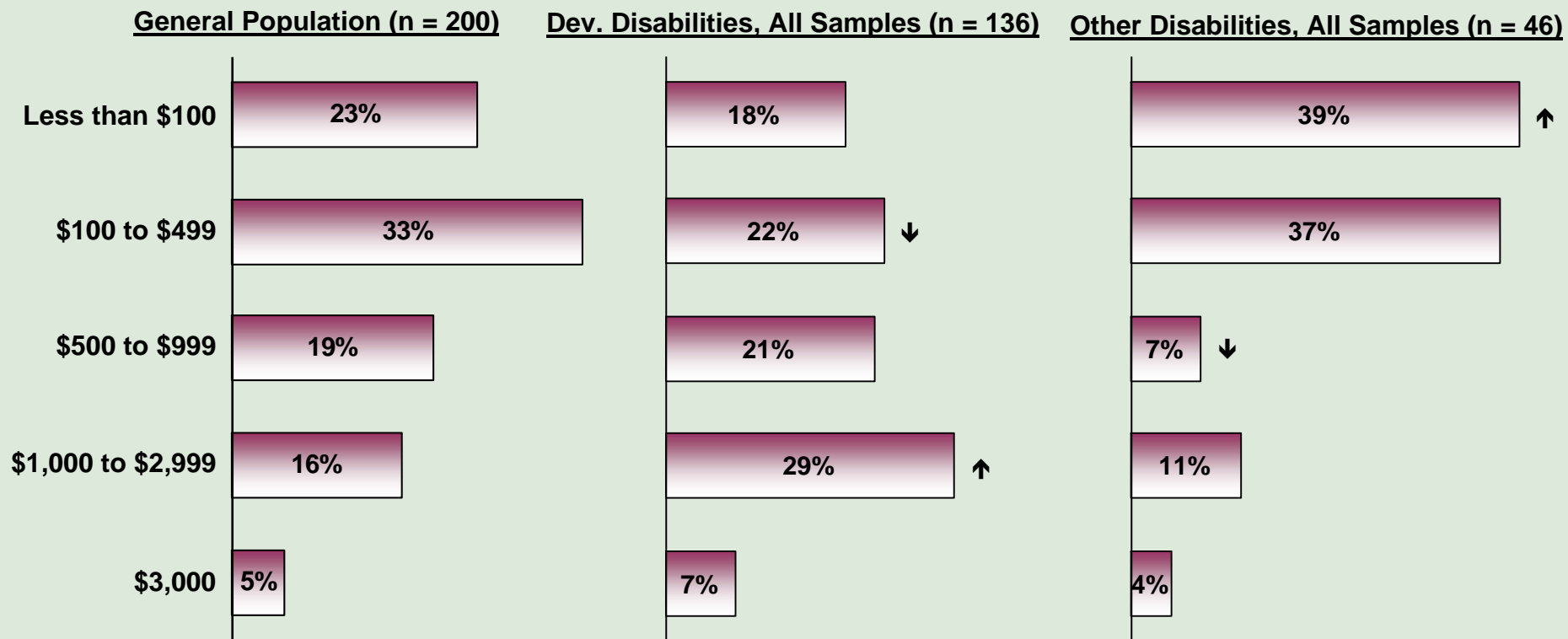
These findings do not provide any evidence that households with people with developmental disabilities have less access to these other technology devices and services than the general population of Minnesotans.

↑ ↓ Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level.



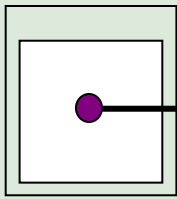
total spending on technology products

Approximately how much money would you say your household spent last year, 2008, on technology products, including computers, cell phones, smart mobile devices, GPS devices, video gaming systems, etc? Would you say... (Q16)



↑↓ Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level.

Households with persons with developmental disabilities spent as much or more on technology products in 2008, as compared to the general population households. Households with persons with other disabilities spent the least.

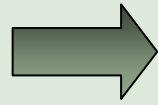


conclusions

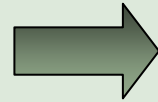
Compared to the general population of Minnesotans, do households with people with developmental disabilities...

1. Have equal access to information technologies and services?

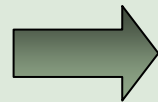
YES!



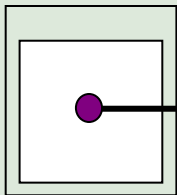
Same level of household computer ownership and broadband Internet access



Same or higher ownership levels of other technology devices and services



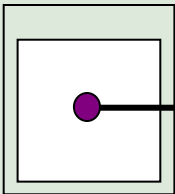
Spent as much or more on technology products in 2008



major research questions

Compared to the general population of Minnesotans, do households with people with developmental disabilities...

1. Have equal access to information technologies and services?
- 2. Use information technologies in the same way, for the same purposes?**

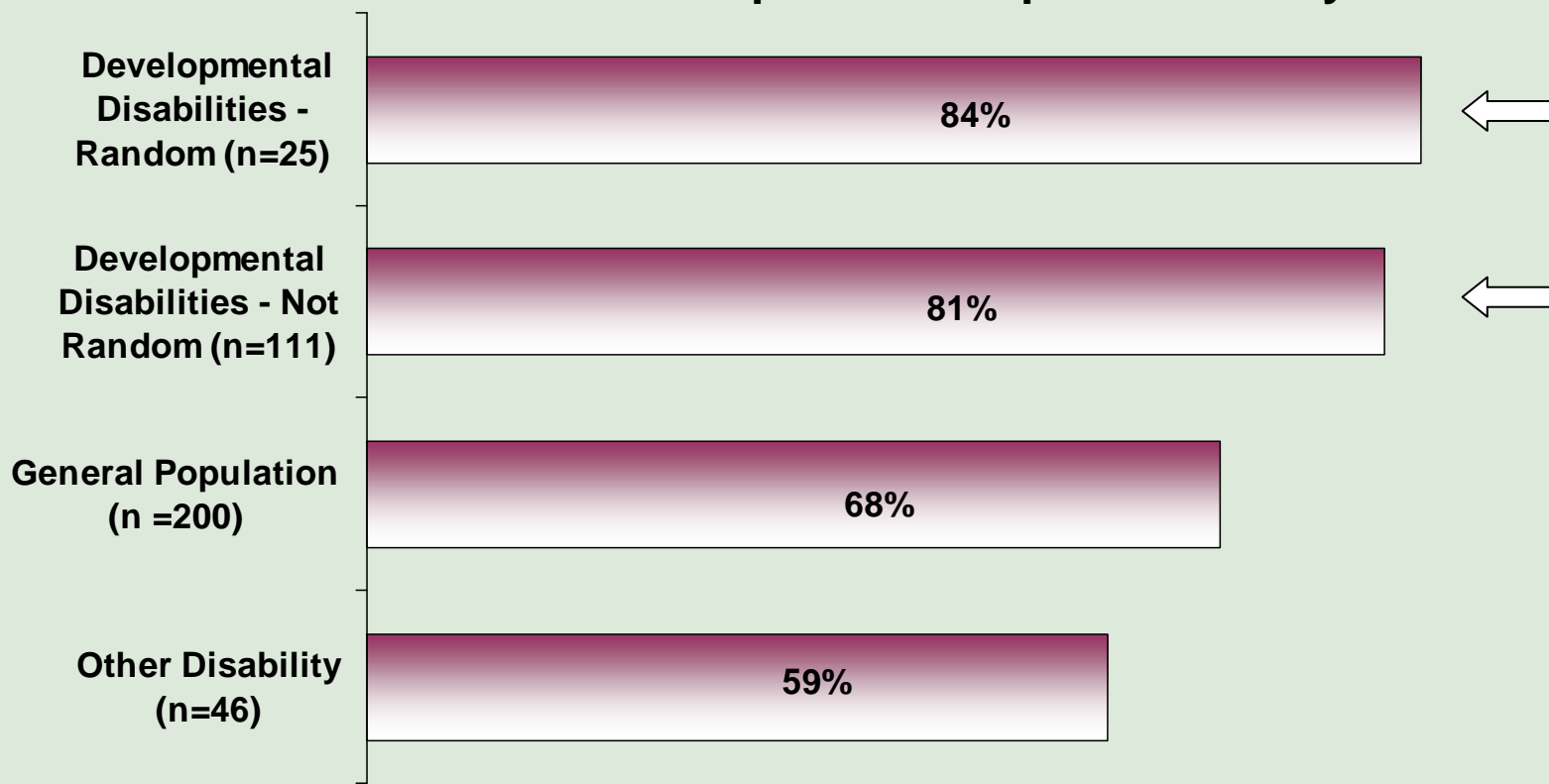


use of technology – frequency of computer use

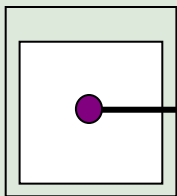
How often is a computer used, in total, by persons in your household? (Q7)

(Asked of those with computers in household, random sample n = 233)

% who use the computer “multiple times daily”



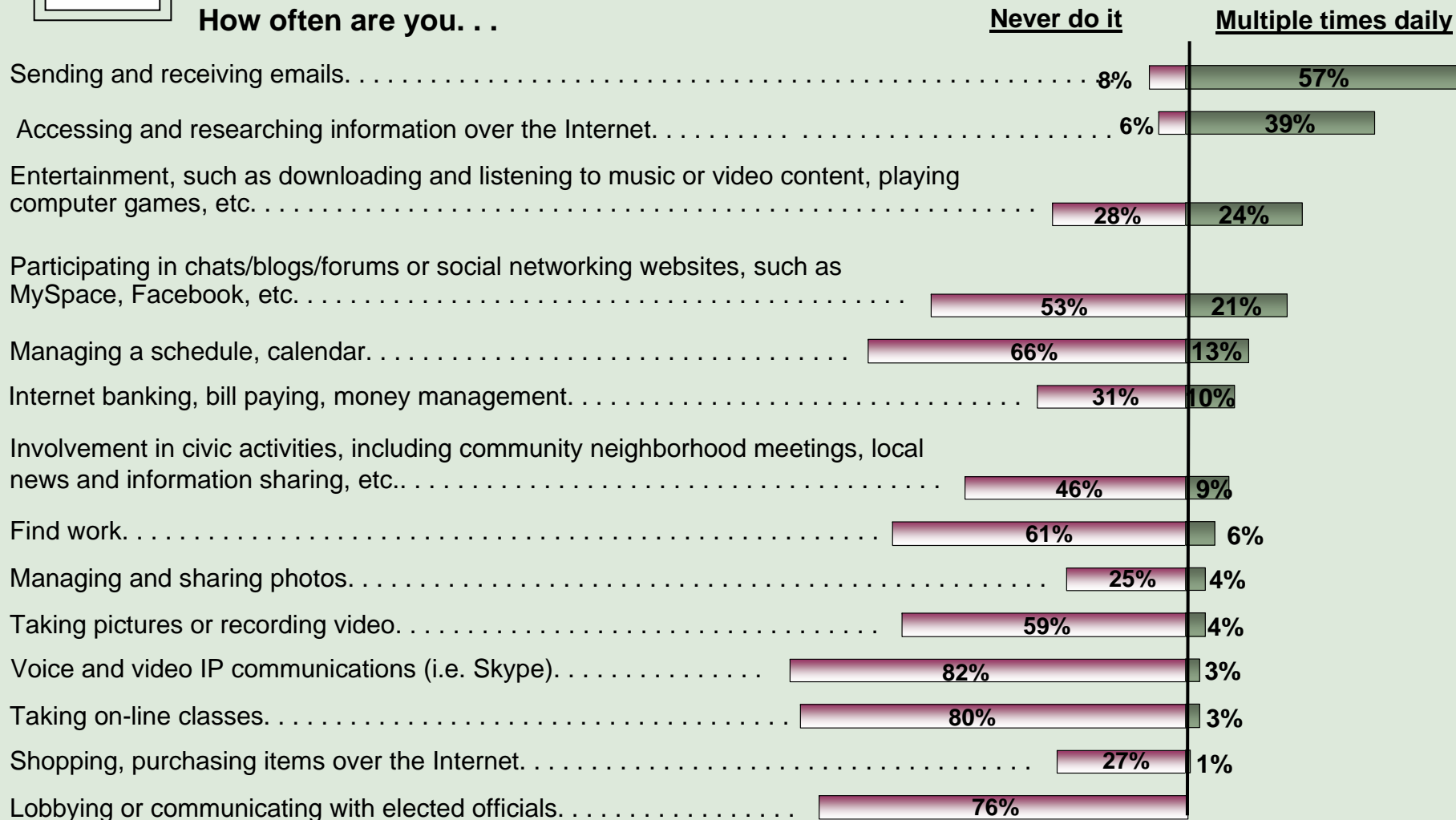
Higher percents of both of the developmental disabilities respondent groups use their computers multiple times daily.



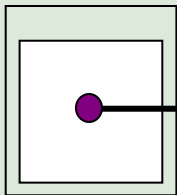
computer use (Q8)

How often are you. . .

Random Sample Responses (n = 233)



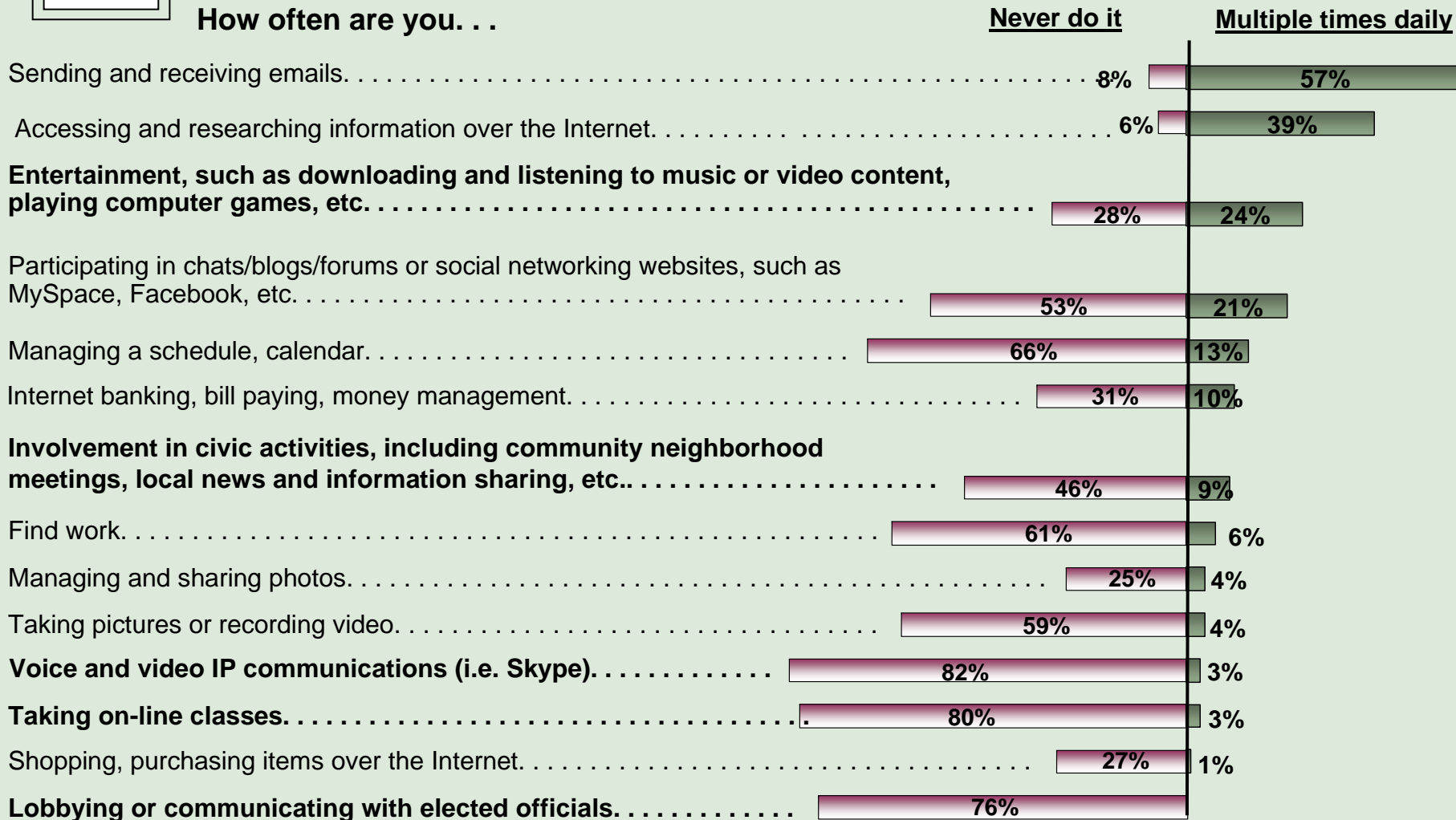
Households with persons with developmental disabilities reported different levels of computer use (vs. the general population) on five of the fourteen activities shown above. (Reported next.)



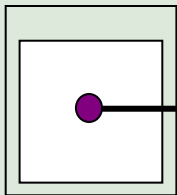
computer use (Q8)

How often are you. . .

Random Sample Responses (n = 233)



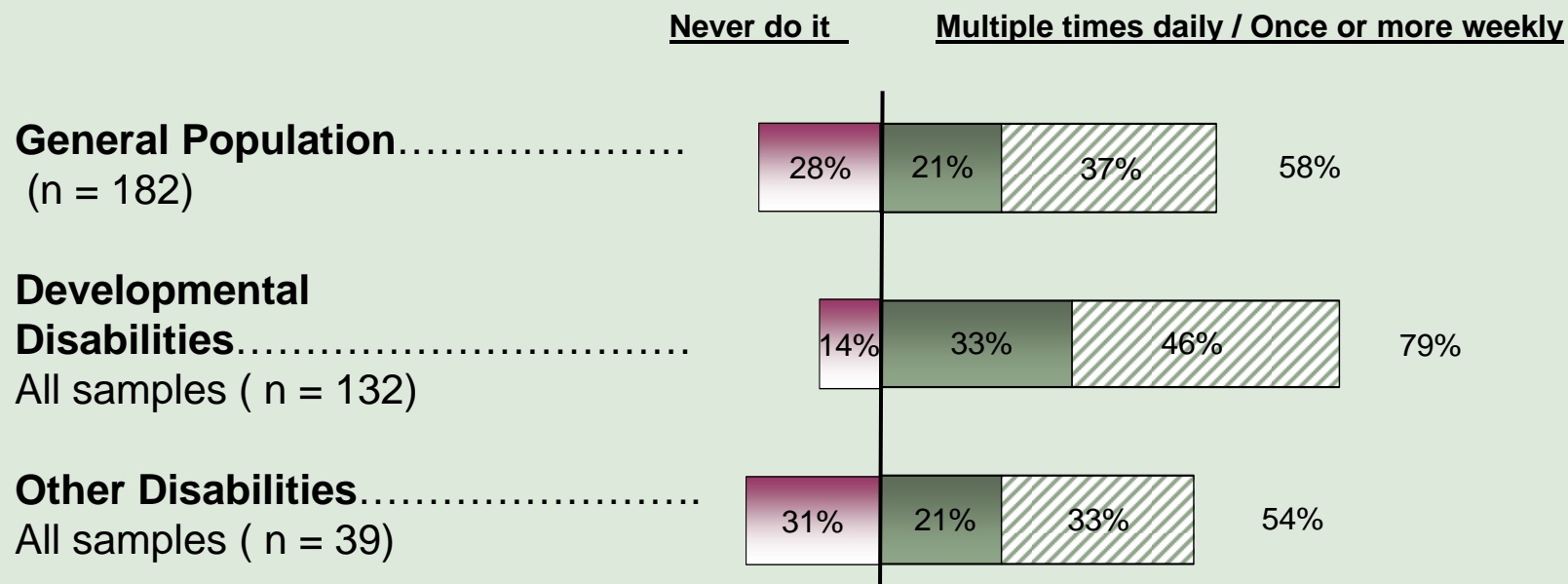
Households with persons with developmental disabilities reported different levels of computer use (vs. the general population) on five of the fourteen activities shown above. (Reported next.)



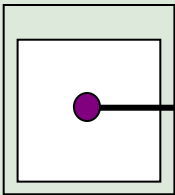
computer use (Q8)

How often are you using a computer for

Entertainment, such as downloading and listening to music or video content, playing computer games, etc.



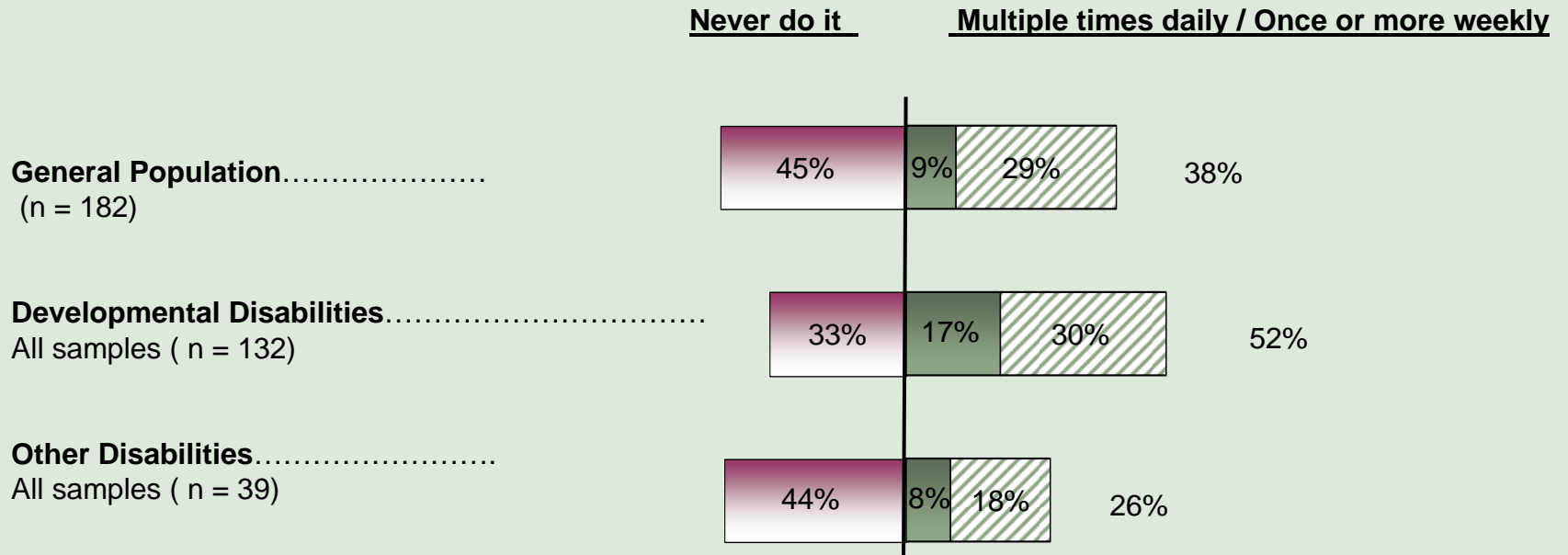
Households with people with developmental disabilities spend more time using technology for entertainment purposes.



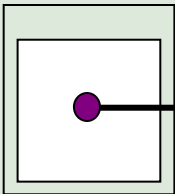
computer use (Q8)

How often are you using a computer for.....

Involvement in civic activities, including community neighborhood meetings, local news and information sharing, etc.



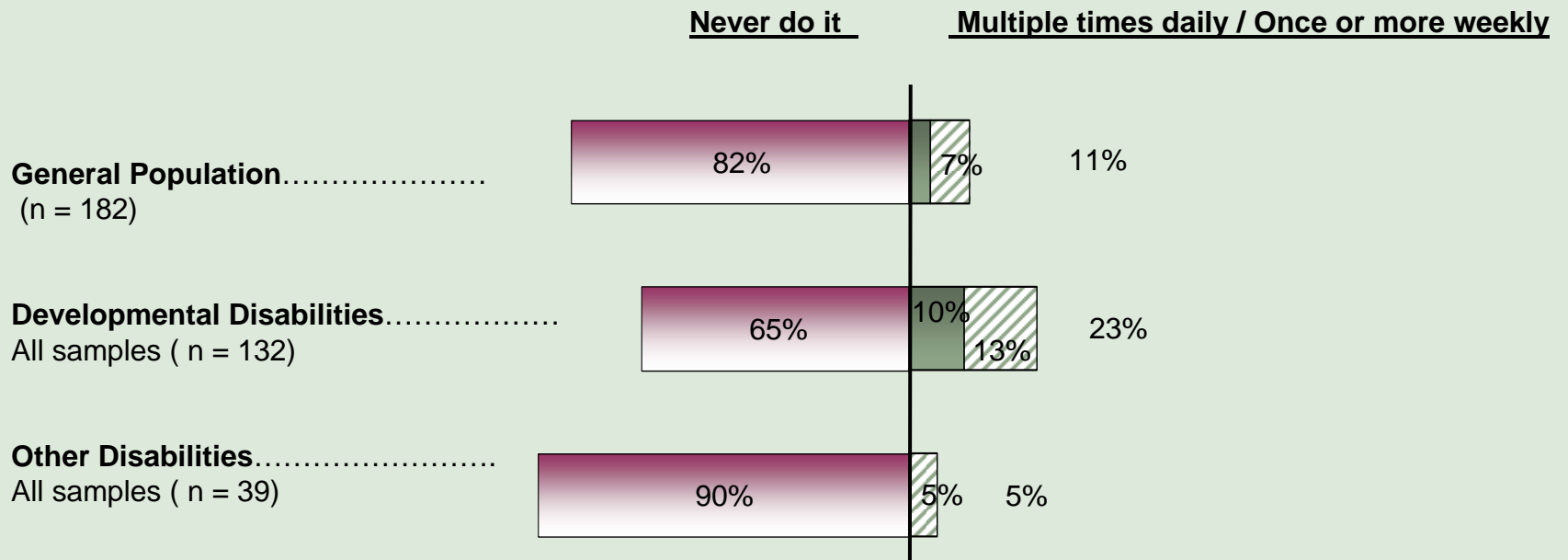
In households with people with developmental disabilities technology helps them be more aware and involved in their local communities.



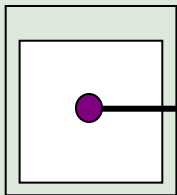
computer use (Q8)

How often are you using a computer for.....

Voice and video IP communications (i.e. Skype)



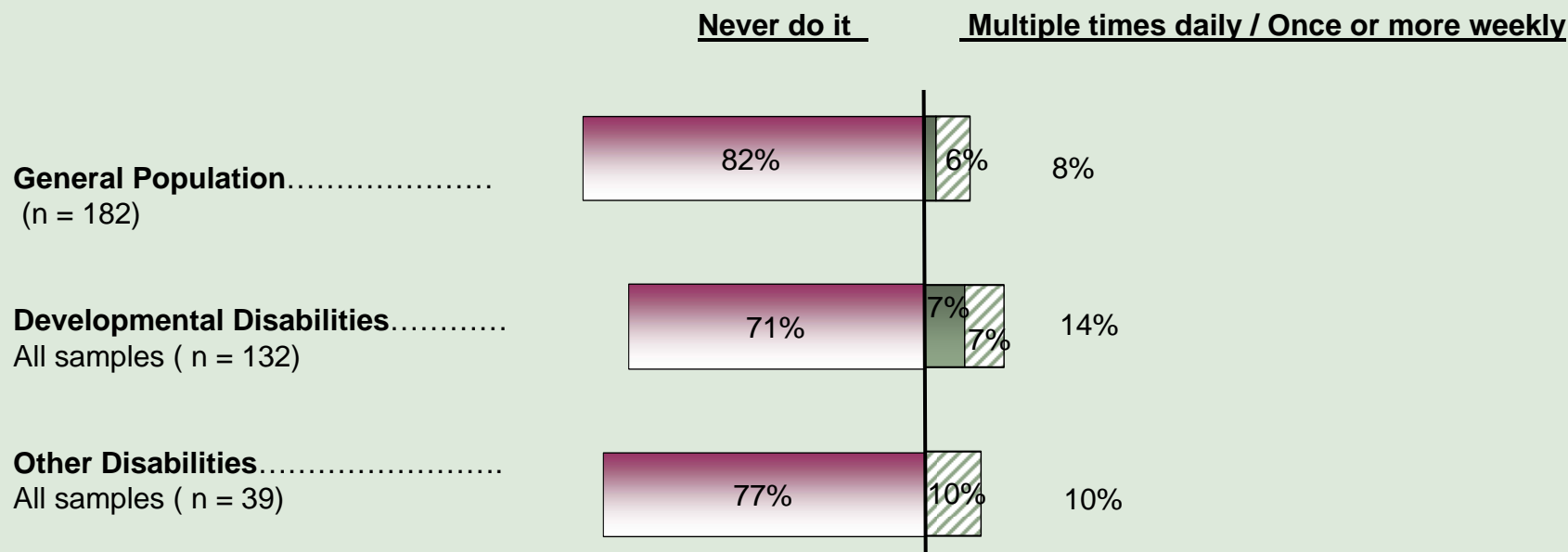
Households with people with developmental disabilities tend to use voice and video IP communications more frequently.



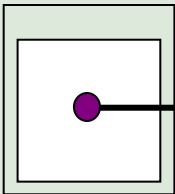
computer use (Q8)

How often are you using a computer for.....

Taking on-line classes.



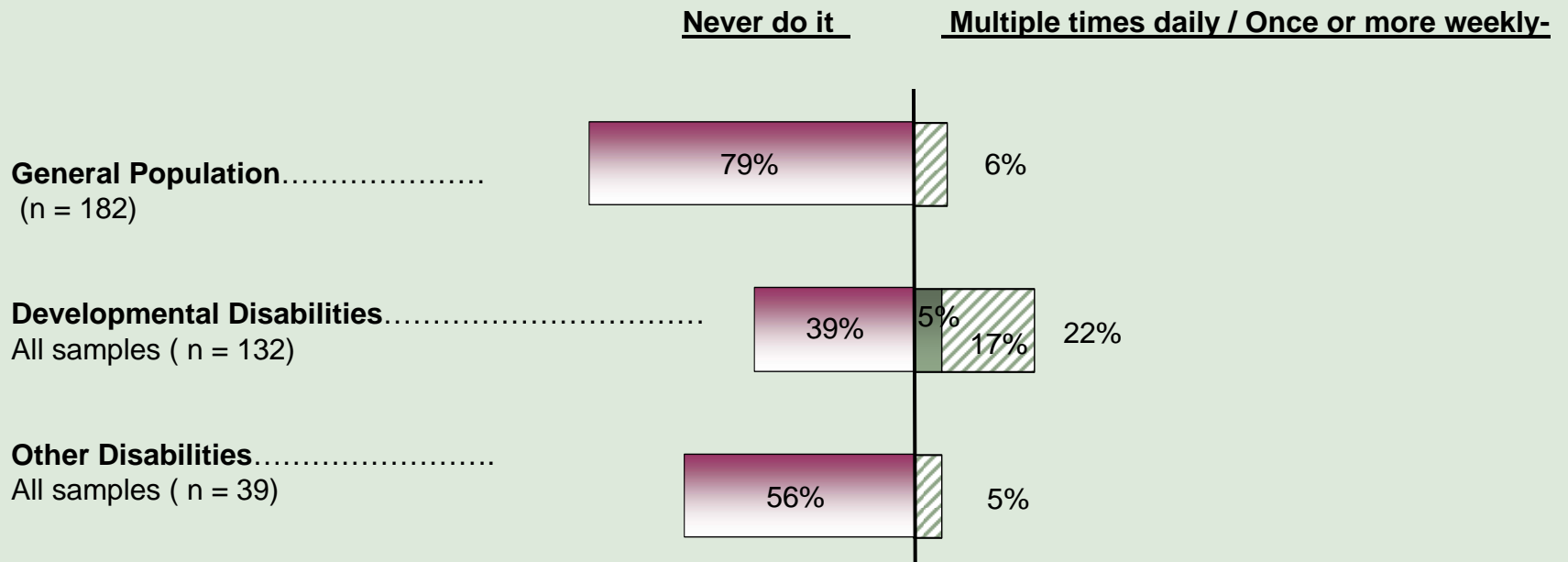
Although the absolute proportions are not high, households with people with developmental disabilities appear more likely to use technology for taking on-line classes.



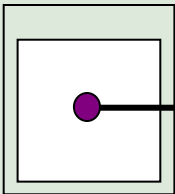
computer use (Q8)

How often are you using a computer for.....

Lobbying or communicating with elected officials

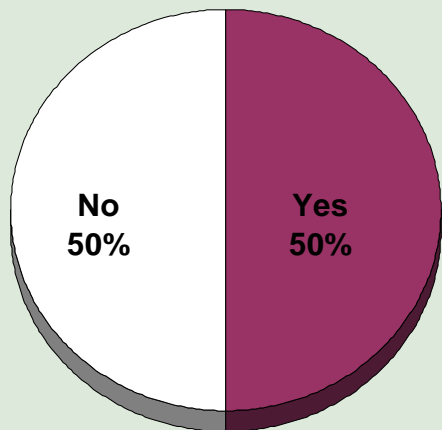


In households with people with developmental disabilities, technology appears to be a more important means for communicating with elected officials.

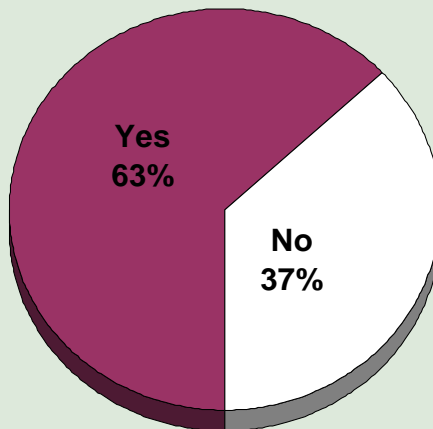


use of state government websites by groups

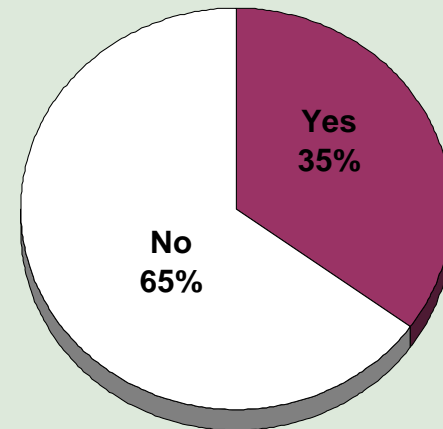
Have your ever accessed any state government websites in order to find information about services and resources? (Q21)



General Population (n =200)



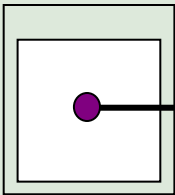
Developmental Disabilities (n = 136)



Other Disabilities (n = 46)

Within Developmental Disabilities Group:
Yes for random sample = 40%
Yes for non-random sample = 69%

Use of government websites is higher in households with people with developmental disabilities.



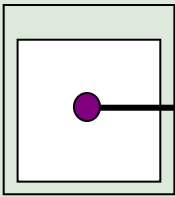
details on use of state government websites

Please indicate the extent to which you agree or disagree with each statement about state government websites. (Q22)

Percent “agree somewhat” or “agree strongly”	Dev. Dis. (n=136)	Gen. Pop. (n=200)	Difference DD - GP
Font sizes are large enough, and web pages are designed in a way that makes them easy to read.	71%	87%	-16%*
Search function recognizes common language and I can find what I need using the search function.	67%	77%	-10%*
Web site forms are accessible and easy to use, the formats are familiar and they don’t ask for unnecessary information.	61%	70%	-9%
Color contrast and color choice are good.	73%	80%	-7%
I can easily find the links a the page, and the links tell me exactly what I’ll find at that site.	66%	72%	-6%
The web content is easy to understand, terms are clearly explained.	79%	82%	-3%
Websites are accessible to visitors who use screen readers.	17%	20%	-3%
All contact information is current and easy to find, phone numbers and physical mailing addresses are included.	67%	70%	-3%
I can easily find what I’m looking for at the State of Minnesota web sites.	69%	72%	-3%

* Difference between Developmental Disability and General Population samples is statistically significant at 90% confidence level.

Although their use of state government websites is higher, households with people with developmental disabilities rate some attributes of government websites lower than the general population.

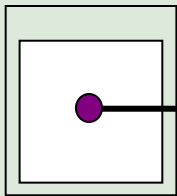


details on use of state government websites

Please indicate the extent to which you agree or disagree with each statement about state government websites. (Q22)

Percent “agree somewhat” or “agree strongly”	Dev. Dis. (n=136)	Gen. Pop. (n=200)	Difference Dev. Dis. - Gen. Pop.
I can download easily	77%	68%	+9%
The home page and section pages are <u>not</u> overly cluttered	69%	63%	+6%
Page layouts are flexible for different types of computers. I can print out everything I see on the screen.	69%	65%	+4%
I can download quickly	73%	72%	+1%
I can easily enlarge photos for a close up view, the enlarge photo button works and I can see a big photo if I use this option	44%	43%	+1%

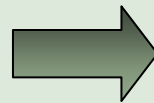
On some attributes, households with people with developmental disabilities rated government websites higher than the general population rated them.



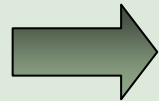
conclusions

Compared to the general population of Minnesota, do households with people with developmental disabilities...

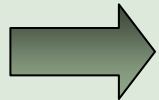
2. Use information technologies in the same way, for the same purposes?



More frequent use of computers



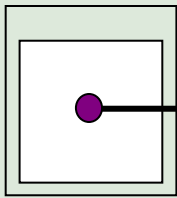
Access government websites more



Technology is used more for:

- entertainment
- community information / involvement
- IP communications
- learning / online classes
- lobbying / communicating with elected officials

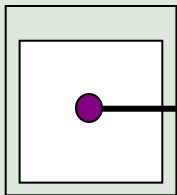
**Not
Entirely!**



major research questions

Compared to the general population of Minnesotans, do households with people with developmental disabilities...

1. Have equal access to information technologies and services?
2. Use information technologies in the same way, for the same purposes?
3. **Perceive the same benefits from their use of information technologies?**



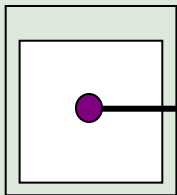
households' technology perceptions

Please indicate the extent to which you agree or disagree with each statement about information technology. (Q19)

Percent “agree somewhat” or “agree strongly”	Dev. Dis. (n=136)	Gen. Pop. (n=200)	Difference Dev. Dis. - Gen. Pop.
I would like to learn more about the ways in which technology devices could help us live better.	79%	48%	31%*
I believe we would be better off if new technology devices were more accessible to us.	74%	52%	22%*
Compared to most other households, we are more interested in keeping up with the latest technologies.	49%	35%	14%*
We would use technology a lot more than we do now if it were more affordable.	76%	64%	12%
I believe technology has helped us to be more socially connected.	70%	70%	0%
Our family is more connected to each other because of our use of technology.	65%	64%	1%
It seems that other people are using more technology products than we are.	63%	62%	1%
Compared to most other households, we are usually one of the first to try new technology devices.	26%	20%	6%

* Difference between Developmental Disability and General Population samples is statistically significant at 90% confidence level.

Although their access and use of technology products is at least equivalent to that of the general population, households with people with developmental disabilities have a stronger desire to have more of the latest technologies and learn more about how technology devices can improve their lives.



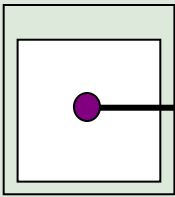
perceptions of technology impacts on individuals with developmental disabilities

Please indicate the extent to which you agree or disagree with each statement about information technology. (Q20)

Percent “agree somewhat” or “agree strongly”	Dev. Dis. (n=136)	Gen. Pop. (n=200)	Difference Dev. Dis. - Gen. Pop.
Technology helps me to be more independent and self sufficient.	80%	77%	3%
Technology helps me to be more productive.	75%	76%	-1%
I use technology to express myself and my own creativity.	74%	58%	16%*
I am more included in community activities because of my access to, and use of technology.	61%	44%	17%*
Technology helps keep me safe, because I’m always connected to someone who can assist me.	60%	58%	2%

* Difference between Developmental Disability and General Population samples is statistically significant at 90% confidence level.

All respondents tend to believe technology enhances independence and productivity. Households with people with developmental disabilities are more likely to believe technology enhances their inclusion in the community, and provide a way for them to express their own creativity.



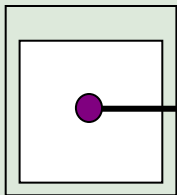
perceptions of technology impacts on individuals with developmental disabilities

Please indicate the extent to which you agree or disagree with each statement about information technology. (Q20)

Percent “agree somewhat” or “agree strongly”	Dev. Dis. (n=136)	Gen. Pop. (n=200)	Difference Dev. Dis. - Gen. Pop.
I use technology to stay in touch with family and or friends.	68%	90%	-22%*
I use technology for instant access to any information I need or want.	70%	89%	-19%*
I use technology to help me stay informed about what’s happening in the world.	61%	77%	-16%*
I use technology to help me stay more informed about what’s happening in my community.	54%	64%	-10%*
I use technology to help me get to places without getting lost.	36%	64%	-28%*

* Difference between Developmental Disability and General Population samples is statistically significant at 90% confidence level.

Households with people with developmental disabilities are less likely than the general population to use technology to stay informed and in touch with other people, or to use it to keep from getting lost.



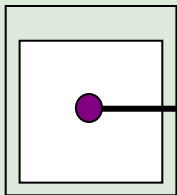
perceptions of technology impacts on households with people with developmental disabilities

Please indicate the extent to which you agree or disagree with each statement about information technology. (Q20)

Percent “agree somewhat” or “agree strongly”	Developmental Disabilities Samples		
	Random (n = 25)	Non-Random (n = 111)	Difference Random – Non- Random
Technology plays a vital role in helping me live with my disability.	48%	76%	-28%*
Technology helps me to be my own advocate.	48%	69%	-21%*
I use technology devices which have been adapted to meet my specific needs.	32%	64%	-32%*
I use the Internet to obtain information about my disability.	36%	46%	-10%

* Difference between random and non-random samples is statistically significant at 90% confidence level.

The non-random sample of households with people with developmental disabilities are clearly more active users than the random sample of households and they rely more on technology to manage their disabilities.

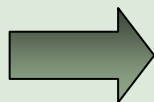


conclusions

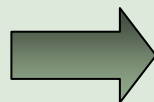
Compared to the general population of Minnesota, do households with people with developmental disabilities...

3. Perceive the same benefits from their use of information technologies?

**Not
Entirely**

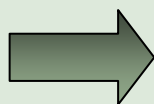


More interested in having the latest technologies

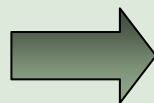


More interested in learning more about how technology devices can improve their lives

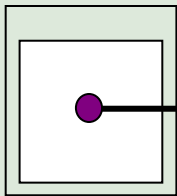
However...



Not all households with people with developmental disabilities are as *far along* or *sophisticated* with their use of technology as some are



There may be an opportunity for technology training and information sharing within the population of people with developmental disabilities



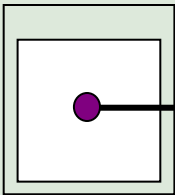
attitudinal segmentation analysis

The survey questionnaire included several statements reflecting a variety of attitudes related to the use and interest in information technologies. The respondents indicated the degree to which they agreed or disagreed with each statement using this scale:

<u>Agree strongly</u>	<u>Agree somewhat</u>	<u>Neither agree nor disagree</u>	<u>Disagree somewhat</u>	<u>Disagree strongly</u>
5	4	3	2	1

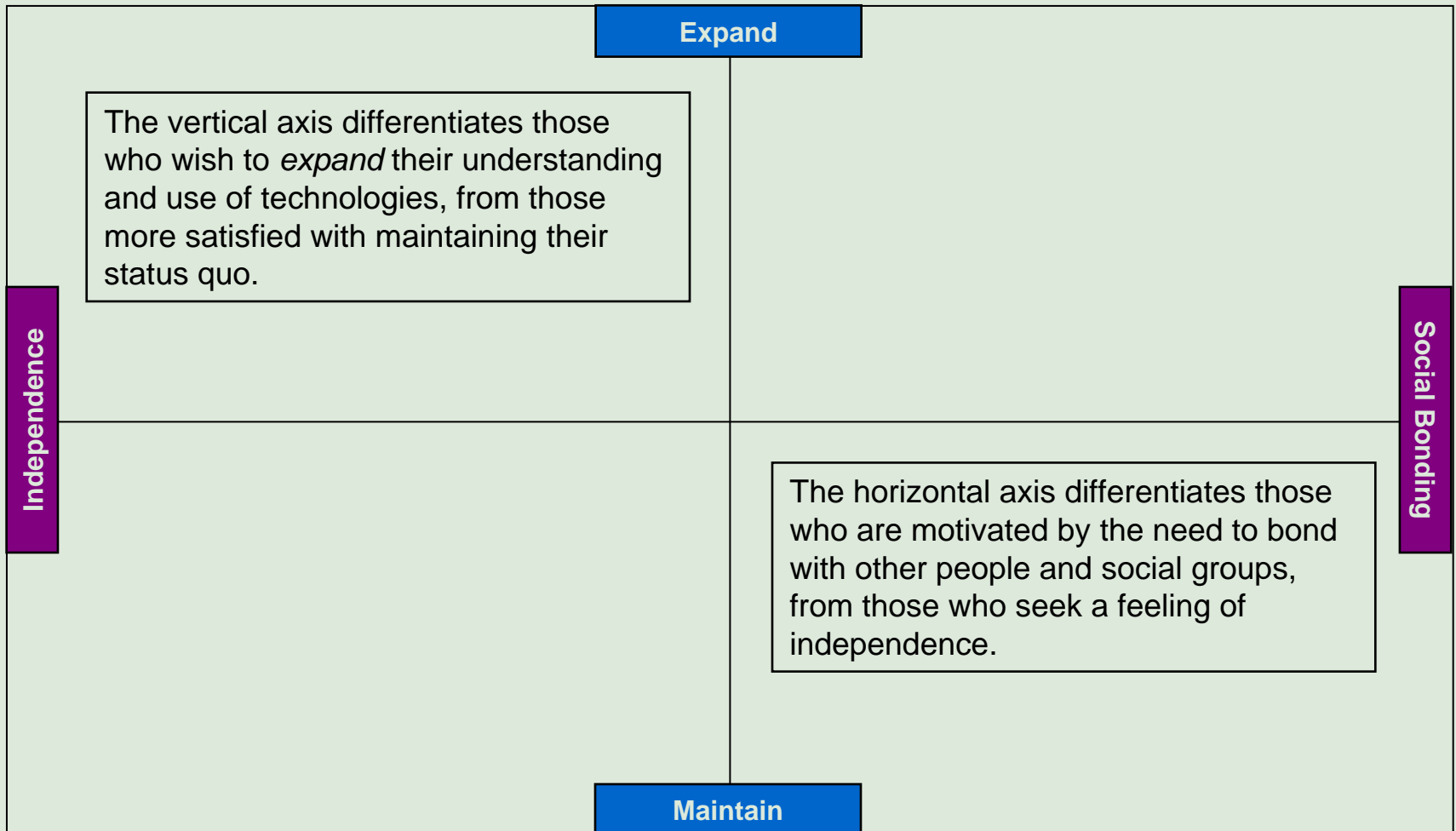
A multivariate statistical analysis procedure was used to group like-minded people together based on consistency of answers across the statements. This analysis included all survey respondents together, households of people with and people without disabilities, to provide another comparative look at these various populations. Four different attitudinal segments were thus identified:

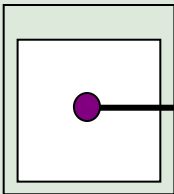
- 1) Technology Savvy**
- 2) Mainstream Technology Users**
- 3) Technology Seekers**
- 4) Technology Laggards**



attitudinal segmentation analysis

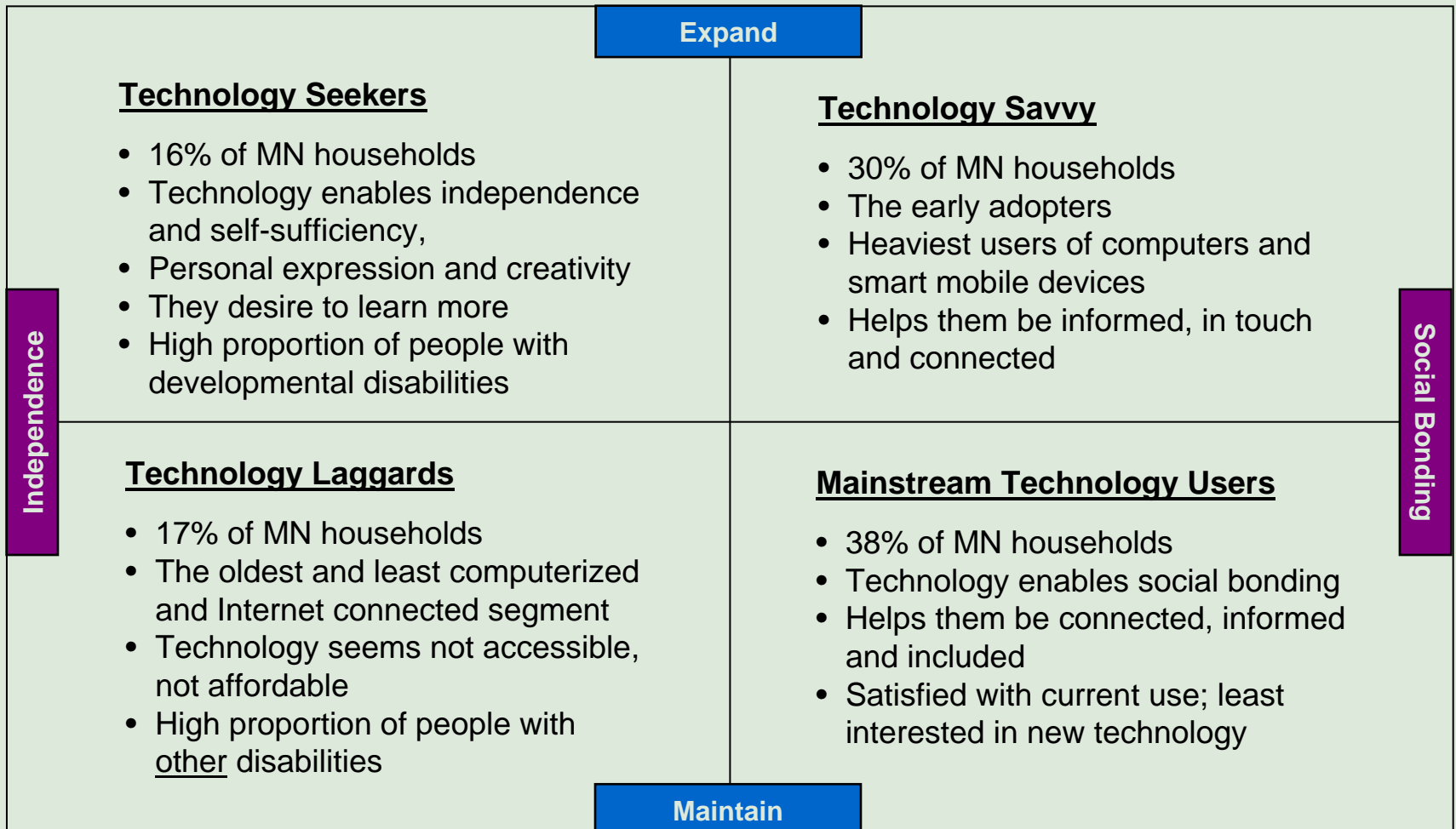
The four attitudinal segments will be displayed within the 2-dimensional motivational map:

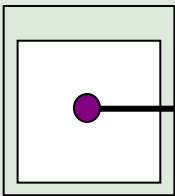




attitudinal segmentation analysis

The four attitudinal segments are displayed within the 2-dimensional motivational map:





attitudinal segment: technology savvy

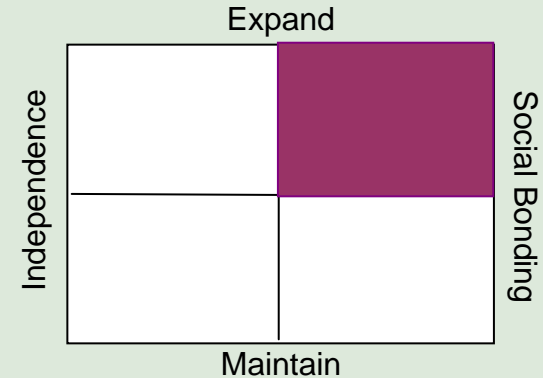
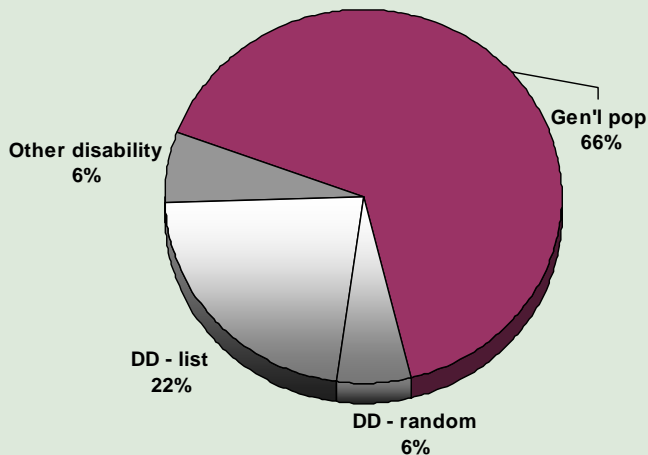
Technology Savvy (30% of MN Households)

They are the lead users of information technologies, and they know it. This group had the highest penetration of home computers with broadband connectivity, and they've owned their computers for the longest time.

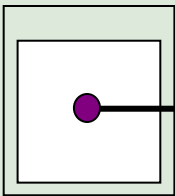
For the Tech-Savvy group the prime benefit of technology is that it provides instant access to any information they need, and helps them to be more informed, in touch and connected with other people.

They are the heaviest users of their home computers and they are twice as likely as all other segments to own a smart mobile device, such as an iPhone or BlackBerry.

Households with people with developmental disabilities are proportionately under-represented in this segment.



- ✓ Average age = 46
- ✓ 84% have a computer with broadband Internet access – highest of all segments
- ✓ 72% have owned a computer for more than 10 years – highest of all segments
- ✓ 51% have a smart mobile device – highest of all segments
- ✓ 41% spent more than \$1,000 on technology in 2008 – highest of all segments
- ✓ 57% are employed full time – higher than others
- ✓ 54% had annual household income over \$75,000, highest of all segments



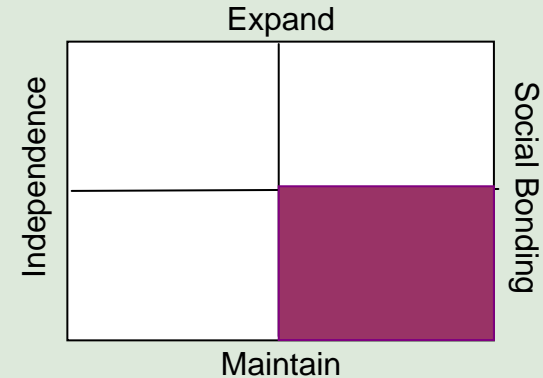
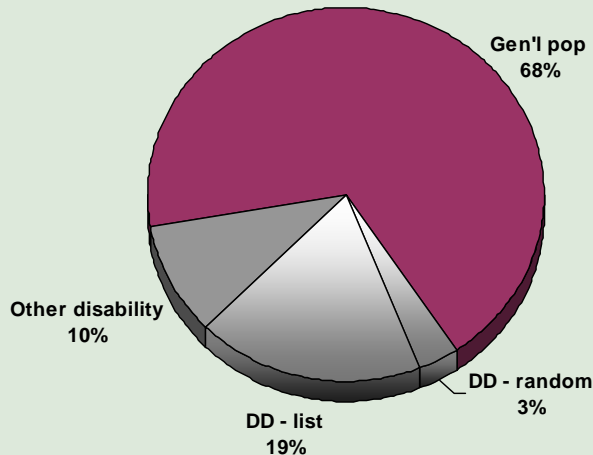
attitudinal segment – mainstream technology users

Mainstream Technology Users (38% of MN Households)

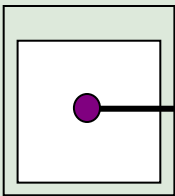
For the Mainstream Technology Users, technology is all about social bonding. They perceive technology as enabling them to be more connected, informed and included in their communities. They are also most likely to believe that technology enables them to have deeper and more meaningful relationships with other people.

However, the Mainstream Technology Users expressed the least interest in keeping up with the latest technologies, or making the effort to learn more about it. Most of the Mainstream Technology Users own a household computer with broadband connectivity to the Internet, and they appear to take it for granted.

Households with people with developmental disabilities are proportionately under-represented in this segment.



- ✓ Average age = 47
- ✓ 70% have a computer with broadband Internet access
- ✓ 43% have owned a computer for more than 10 years – a relatively low level
- ✓ 24% have a smart mobile device – a low level
- ✓ 23% spent more than \$1,000 on technology in 2008 – a relatively low level
- ✓ 47% are employed full time
- ✓ 27% had annual household income over \$75,000 -- a moderate level



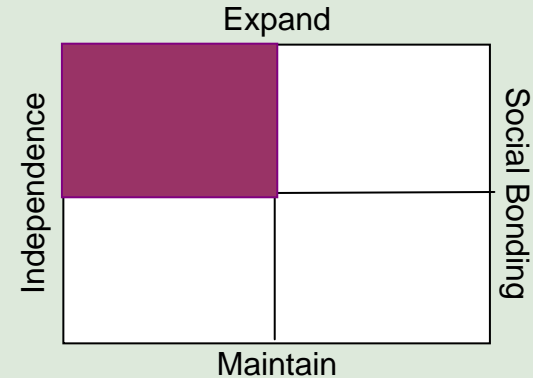
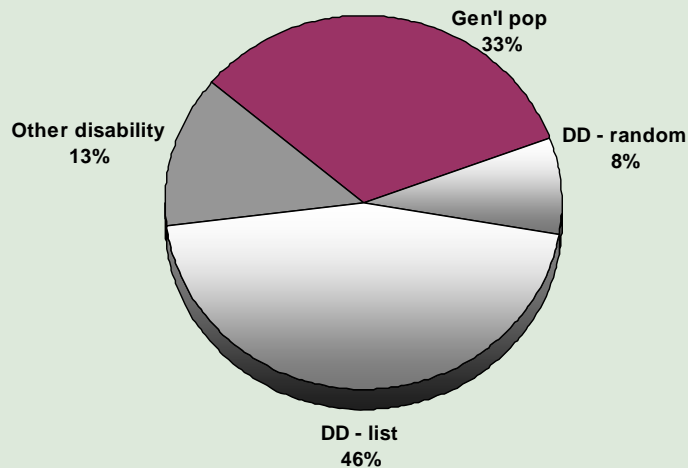
attitudinal segment – technology seekers

Technology Seekers (16% of MN Households)

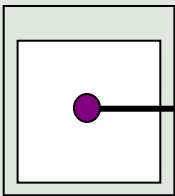
While most Technology Seekers own a household computer with broadband connectivity to the Internet, they do not see themselves as early adopters.

It's not the technology itself that's interesting to this group, it's what technology can do for them. Technology has helped them to be more independent and self-sufficient; and more than any other group, they use technology to express themselves and their own creativity. More than any other group, the Technology Seekers want to learn more about the ways in which technology can help them live better.

Households with people with developmental disabilities who participated in this survey from the non-random "list" are proportionately over-represented in this segment.



- ✓ Average age = 47
- ✓ 70% have a computer with broadband Internet access
- ✓ 37% have owned a computer for more than 10 years – lowest of all segments
- ✓ 24% have a smart mobile device – a low level
- ✓ 20% spent more than \$1,000 on technology in 2008 – low end of all segments
- ✓ 44% are employed full time
- ✓ 15% had annual household income over \$75,000, lowest of all segments



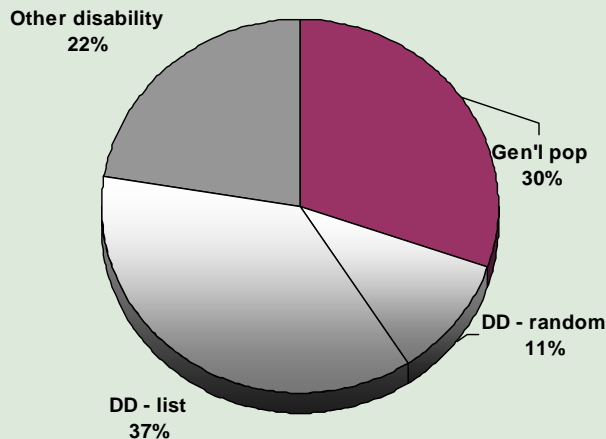
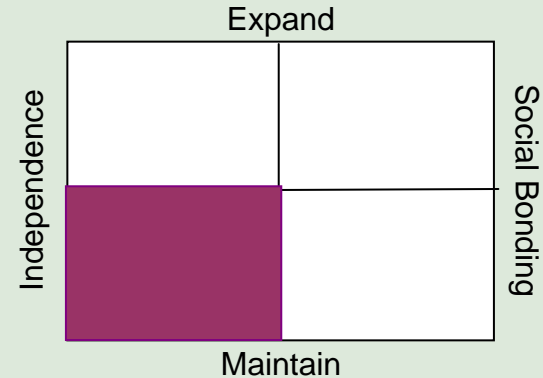
attitudinal segment – technology laggards

Technology Laggards (17% of MN Households)

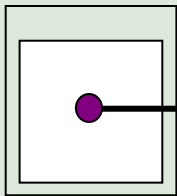
The Technology Laggards are the oldest segment, least connected to the Internet, and least likely to own other technology devices.

While technology has had some impact on their lives, there is some interest in learning more about it. However, this segment was the most likely to believe that new technology devices were not accessible or affordable to them.

Households with people with developmental disabilities are proportionately under-represented in this segment.

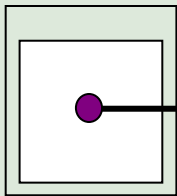


- ✓ Average age = 54 – oldest of all segments
- ✓ 55% have a computer with broadband Internet access – lowest of all segments
- ✓ 42% have owned a computer for more than 10 years – a relatively low level
- ✓ 22% have a smart mobile device – lowest of all segments
- ✓ 19% spent more than \$1,000 on technology in 2008 – lowest of all segments
- ✓ 42% are employed full time – lowest of all segments
- ✓ 23% had annual household income over \$75,000, low end of all segments



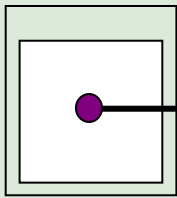
conclusions

- Compared to the general population, households with people with developmental disabilities appear to have equal access to information technologies and services.
 - Households with people with other disabilities generally have less access, which may be related to age
- However, households with people with disabilities don't use these technologies in the same ways:
 - More frequent daily use
 - More access to government websites
 - Use more for entertainment, community information and involvement, etc.



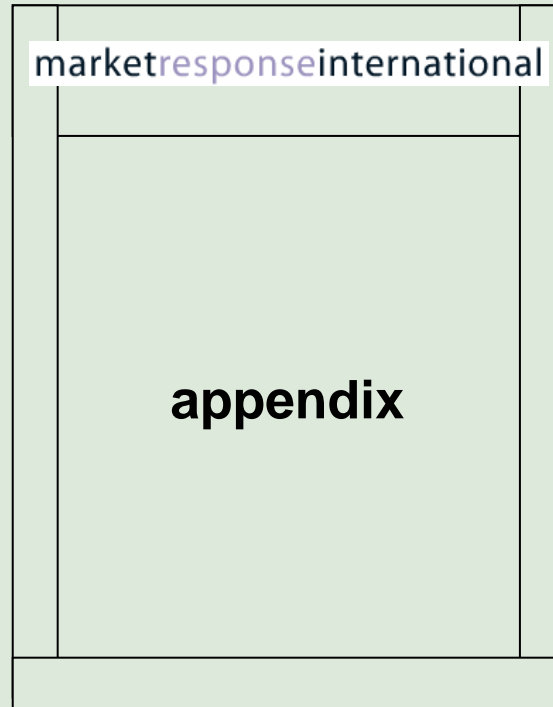
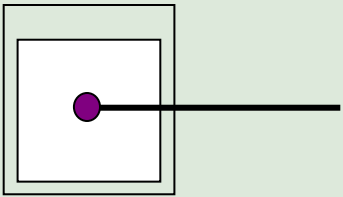
conclusions

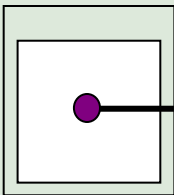
- Not all households with people with disabilities are as *far along or sophisticated* with their use of technology.
- Households with people with disabilities who are technology users...
 - Do not tend to be the earliest adopters
 - Do not tend to be similar to the mainstream general population
 - Tend to use technology more to enable independence, self sufficiency and personal creative expression



conclusions

- There is also a segment of technology laggards among Minnesota households
 - The segment is relatively small (17% of MN households)
 - But, households with people with disabilities are proportionately over-represented in this segment.
- There may be an opportunity for technology training and information sharing within the households of people with disabilities
 - Future exploratory research could be designed to further clarify and define that opportunity.





random dial sample compared to population

	RDD Respondent Sample (Base) (n=207*)	Minnesota Population (N=5,167,000)
<u>Household Income:</u>	<u>%</u>	<u>%</u>
Less than \$25,000	19	22
\$25,000 - \$49,999	27	27
\$50,000 - \$74,999	21	22
\$75,000 - \$99,999	15	14
\$100,000 - \$149,999	9	12
More than \$150,000	9	4

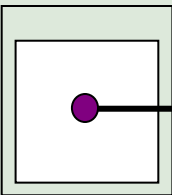
* 50 respondents who did not know or refused to answer the household income question, were not included in the base.

	RDD Respondent Sample (Base) (n=243*)	Minnesota Population (N=5,167,000)
<u>Race:</u>	<u>%</u>	<u>%</u>
White, Caucasian	96	87
Black or African American	2	4
Hispanic	1	4
Native American	0	1
Asian / Pacific Islander	0	3
Other	2	0

* 14 respondents who did not know or refused to answer the race question, were not included in the base.

	RDD Respondent Sample (Base) (n=257)	Minnesota Population (N=5,167,000)
<u>Adult Age:</u>	<u>%</u>	<u>%</u>
18 - 24	11	13
25 - 34	10	17
35 - 44	23	19
45 - 54	17	20
55 - 64	23	14
65 - 74	9	8
75 and older	9	8

The random digit dial (RDD) sample was employed in order to include Minnesota households with either listed or unlisted telephone numbers. The RDD sample was drawn in a way that reflects the distribution of Minnesotans across the state. The process of dialing randomly through this sample of phone numbers resulted in a survey sample profile that reflects the profile of the state population, as shown on this page.



age of respondents by group

		General Population	Developmental Disabilities Samples			Other Disability (n=46)
		(n=200)	Total (n=136)	Random (n=25)	Not Random (n=111)	
Total Random Sample (QB) (Base = 257)						
15-19 yrs		4%	1%	--	1%	--
20-24 yrs		9%	6%	8%	5%	--
25-34 yrs		13%	7%	--	9%	2%
35-44 yrs		25%	27%	16%	30%	11%
45-54 yrs		16%	40%	32%	42%	13%
55-64 yrs		20%	15%	32%	11%	37%
65-74 yrs		8%	2%	4%	2%	20%
75+ yrs		8%	2%	8%	--	17%
Mean age:	49	47	46	52	44	61 ↑

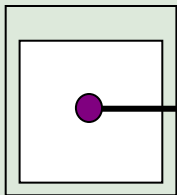
↑↓ Denotes statistically significant differences with the General Population mean, at the 90% or higher confidence level.



age of persons with disabilities (QH)

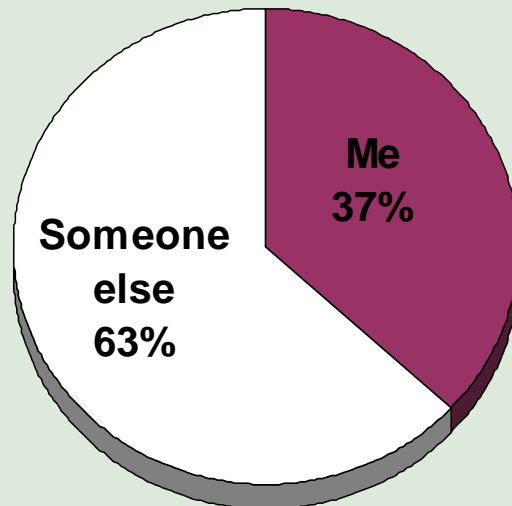
	Developmental Disabilities Samples			Other Disability (n=46)	
	Total (n=182)	Random (n=25)	Not Random (n=111)		
All disabilities random sample (Base = 57)					
Under 7 yrs	2%	7%	4%	10%	--
7-14 yrs	5%	21%	12%	32%	--
15-19 yrs	12%	13%	24%	15%	2%
20-24 yrs	4%	8%	8%	12%	--
25-34 yrs	7%	7%	12%	8%	2%
35-44 yrs	7%	6%	4%	5%	9%
45-54 yrs	11%	10%	12%	9%	11%
55-64 yrs	26%	15%	16%	6%	37%
65-74 yrs	9%	6%	--	2%	17%
75+ yrs	18%	7%	8%	1%	22%
Mean age:	49	46	34 ↑	23 ↓	61 ↑

↑ ↓ Denotes statistically significant differences with other means, at the 90% or higher confidence level.



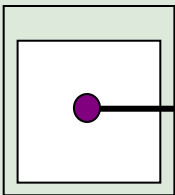
people with disabilities responding

Are you the person with this disability or is it someone else in your household? (QG) (Base = 182)



	Developmental Disability Samples			
Person in the household with disability	Total (n = 136)	Random (n = 25)	Not Random (n = 111)	Other Disability (n = 46)
It's me	24%	32%	22%	76% ↑
It's someone else	76%	68%	78%	24% ↓

↑↓ Denotes statistically significant differences with other groups at the 90% confidence level.

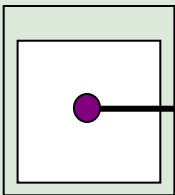


nature of disabilities

Which of the following statements best describes the nature of the disability? (QF) (Multiple responses were allowed)		Developmental Disabilities Samples		
	All Disabilities: <u>Total</u> (n = 182)	Random (n=25)	Not Random (n=111)	Other Disability (n=46)
Developmental or other cognitive Disability	14%	24%	34%	9% ↓
Autism Spectrum Disorder	9%	20%	26%	--
Cerebral Palsy	5%	12%	13%	--
Other neurological condition	16%	12%	13%	17%
Blindness, deafness	16%	20%	10%	20%
Other physical condition	32%	12%	11%	46% ↑
A Mental Illness	14%	8%	7%	13%
Brain injury	5%	4%	7%	17% ↑
Epilepsy	2%	4%	5%	--
Other	4%	--	--	7%

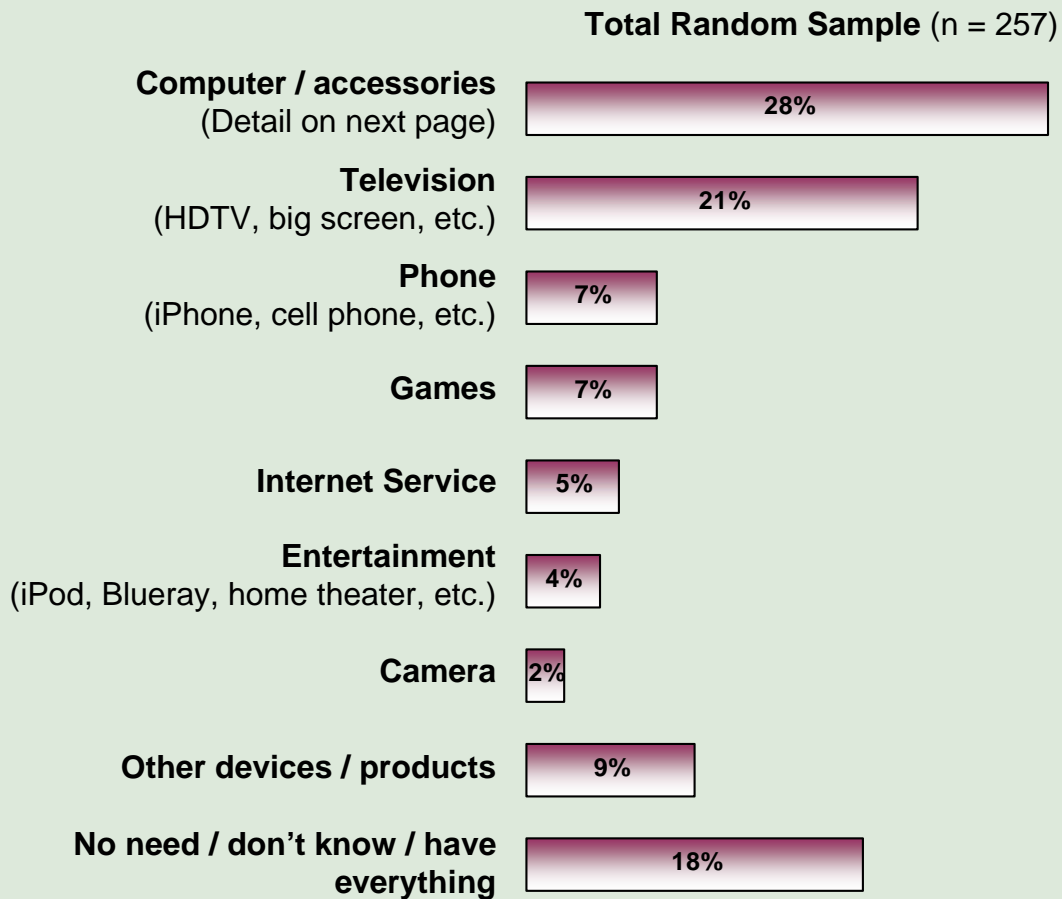
↑↓ Denotes statistically significant differences with other groups at the 90% confidence level.

Note: Percents of disabilities reflected in this table are the result of self reporting from the individuals with disabilities or from other members of the households.



technology products respondent households would most like to purchase

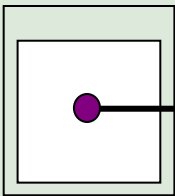
If money were not a factor, what technology product would you most like to purchase for your household over the next 12 months? (Q18)



General Population (n = 200)	Developmental Disabilities Samples			Other Disability (n=46)
	Total (n = 136)	Random (n=25)	Not Random (n=111)	
29%	46% ↑	16%	53% ↑	28%
22%	10% ↓	20%	8% ↓	15%
9%	4%	4%	5%	7%
8%	4%	4%	4%	7%
6%	4%	--	5%	--
3%	6%	12%	5%	--
2%	2%	4%	2%	7%
7%	15%	20%	14%	20%
17%	12%	20%	10%	15%



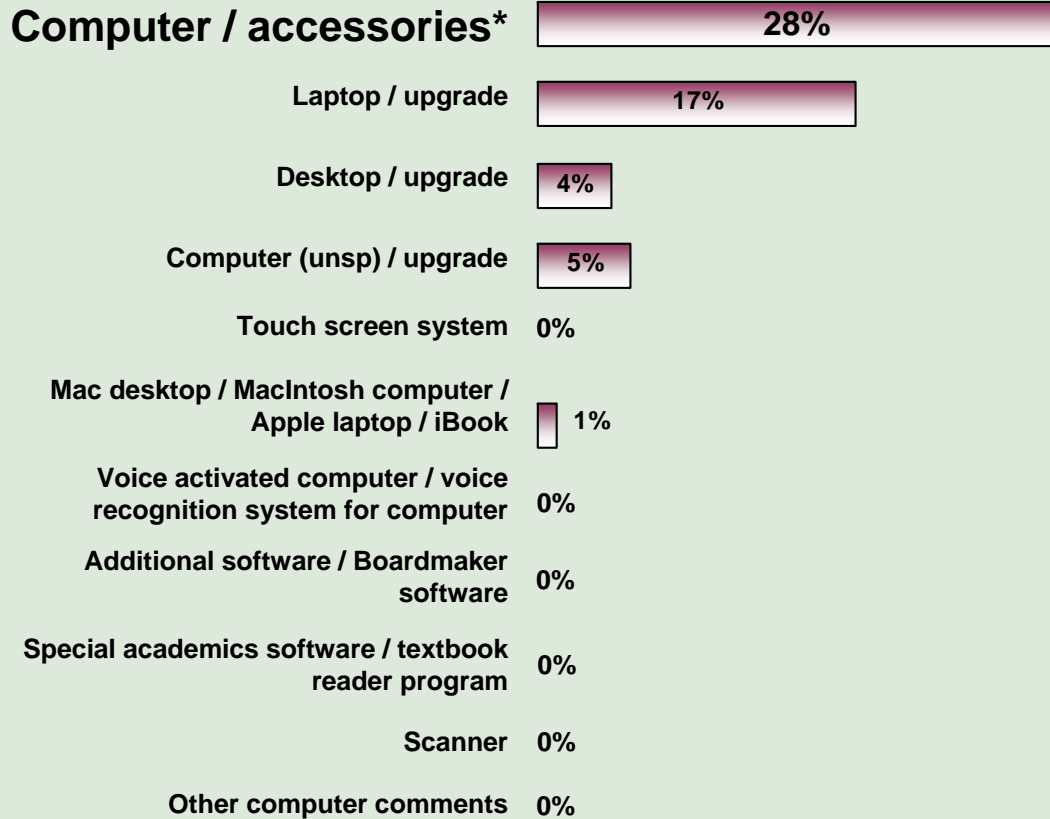
Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level.



computer/accessories respondent households would most like to purchase

If money were not a factor, what technology product would you most like to purchase for your household over the next 12 months? (Q18)

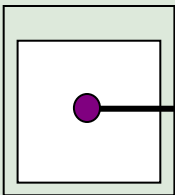
Total Random Sample (n = 257)



General Population (n = 200)	Developmental Disabilities Samples			Other Disability (n=46)
	Total (n = 136)	Random (n=25)	Not Random (n=111)	
29%	46% ↑	16%	53% ↑	28%
19%	18%	12%	20%	13%
4%	10%	4%	11%	4%
5%	3%	--	4%	4%
1%	9% ↑	--	11% ↑	--
1%	2%	--	2%	2%
--	2%	--	3%	2%
1%	1%	--	1%	--
--	2%	--	2%	--
--	2%	--	2%	--
--	2%	--	3%	2%

* Below list includes details on which computer or accessories respondents would most like to purchase.

↑↓ Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level.

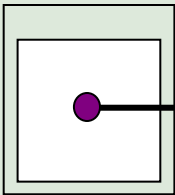


use of technology – Internet access details

Which of the following types of Internet access do you have? (Q6)		General Population	Developmental Disabilities Samples		
Total Random Sample (n = 209)		(n=169)	Random (n=21)	Not Random (n=101)	Other Disability (n=30)
Cable TV Provider	44%	46%	38%	47%	37%
DSL	33%	33%	48%	37%	30%
Dial-up	16%	15%	10%	7%	20%
Satellite TV provide	6%	6%	--	2%	7%
Cellular network	5%	5%	5%	2%	7%
Community provided	1%	1%	--	7%	--
Other access	2%	1%	5%	7%	3%



Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level.

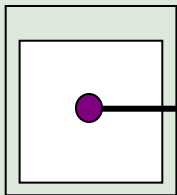


use of technology – frequency of computer use

How often is a computer used, in total, by persons in your household? (Q7)
 (Asked of those with computers in household)

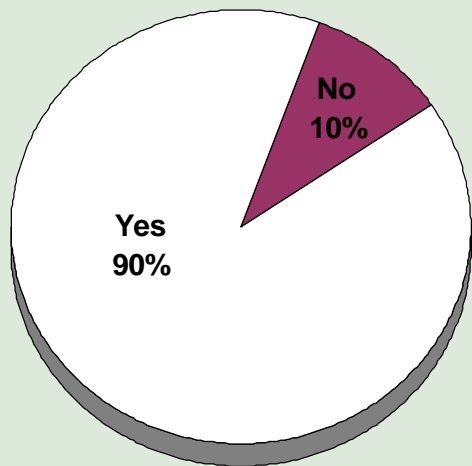
	General Population	Developmental Disabilities Samples			
	(n = 182)	Total (n = 132)	Random (n = 25)	Not Random (n = 107)	Other Disability (n = 39)
Multiple times daily	68%	82% ↑	84% ↑	81% ↑	59%
About 5 to 7 times per week	15%	10%	4% ↓	11%	23%
3 to 4 times per week	8%	3% ↓	4%	3%	--
1 to 2 times per week	4%	2%	4%	2%	5%
Less than once per week	3%	2%	4%	2%	10%
Not all, never	1%	1%	--	1%	3%
MEAN TIMES / WEEK	11.5	13.0 ↑	13.1	13.0	10.4

↑↓ Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level.



use of technology – cell phones

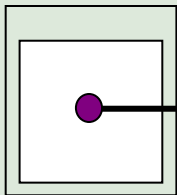
Do you or any other person in your household own a cell phone? (Q9)



For how long have you or anyone else in your household owned a cell phone? (Q10)

	General Population (n = 181)	Developmental Disabilities Samples			Other Disability (n = 35)
		Total (n = 127)	Random (n = 21)	Not RDD (n = 106)	
Mean years by group	8.2	8.1	8.5	8.0	7.5
Less than 1 year	4%	3%	5%	3%	--
1 to 2 years	4%	6%	5%	6%	6%
3 to 5 years	22%	24%	24%	24%	26%
6 to 10 years	30%	27%	14% ↓	29%	46% ↑
More than 10 years	40%	41%	52%	39%	23% ↓

↑↓ Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level.



use of technology – smart mobile devices

Do you or any other person in your household own a smart mobile device, such as an iPhone, MP3 player, BlackBerry, or other hand-held device that is capable of things like Internet access, files down loading, texting, email, etc? (Q11)

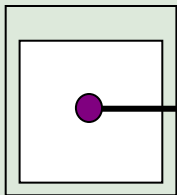


For how long have you or anyone else in your household used one of these devices? (Q12)

	General Population (n = 200)	Developmental Disabilities Samples			Other Disability (n = 35)
		Total (n = 136)	Random (n = 25)	Not Random (n = 111)	
Mean years	2.5	2.4	3.6	2.2	2.7
Less than 1 year	33%	31%	14%	33%	33%
1 to 2 years	28%	39%	43%	38%	33%



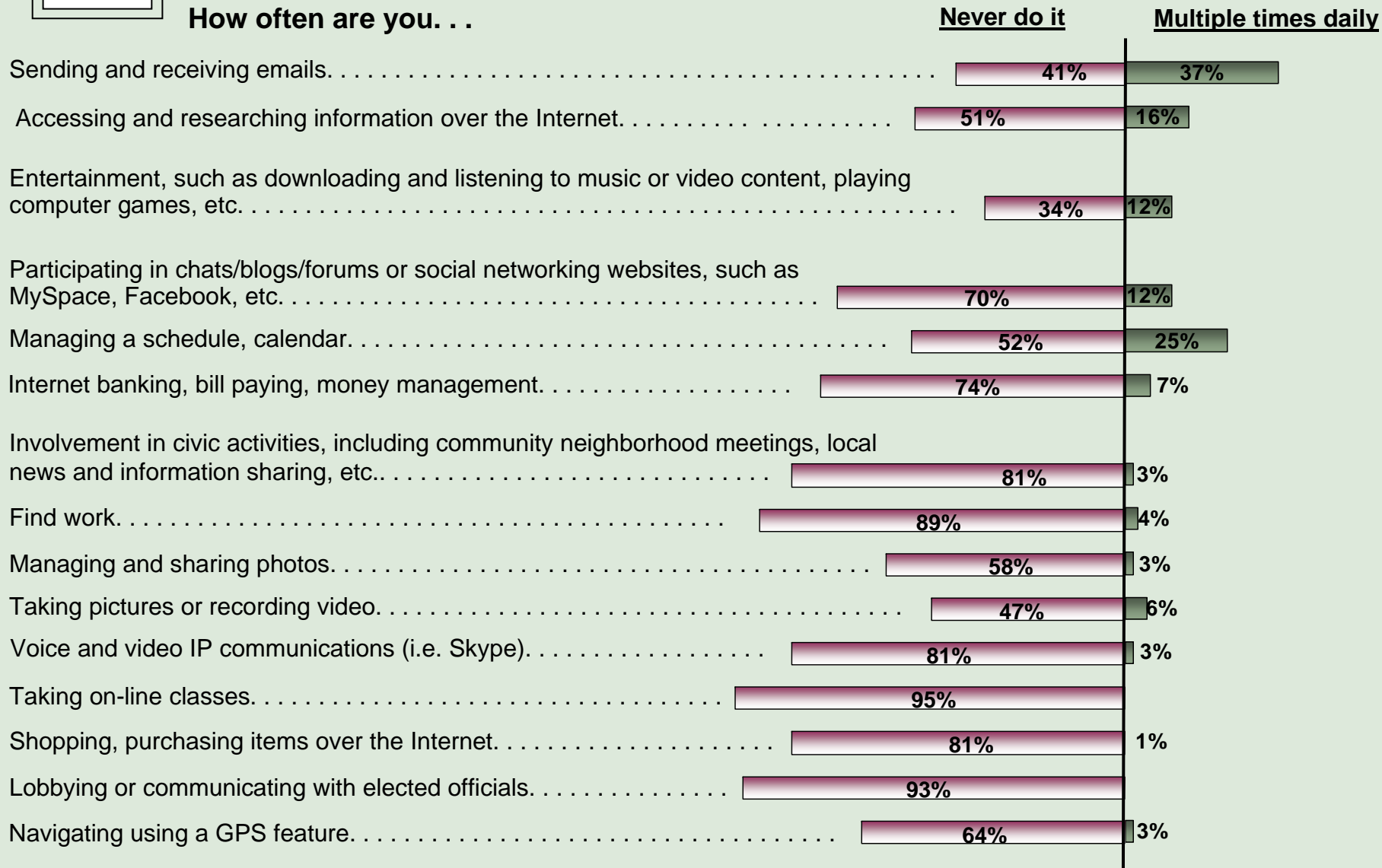
Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level.

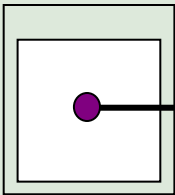


smart mobile devices (Q13)

Random Sample Responses (n = 73)

How often are you. . .



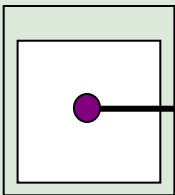


technology use of respondents – cell phones and smart mobile devices

How many cell phones and/or smart mobile devices are there, in total, used by persons in your household? (Q14)

	General Population Respondents (n = 200)		Developmental Disability Respondents (n = 136)		Other Disability (n = 46)	
	Cell Phones	Smart Devices	Cell Phones	Smart Devices	Cell Phones	Smart Devices
1 only.....	27%	18%	24%	26% ↑	33%	4% ↓
2 – 4.....	60%	10%	64%	5% ↓	38% ↓	9%
5 or more.....	3%	--	5%	2% ↑	2%	--
None.....	11%	73%	8%	65%	28% ↑	87% ↑

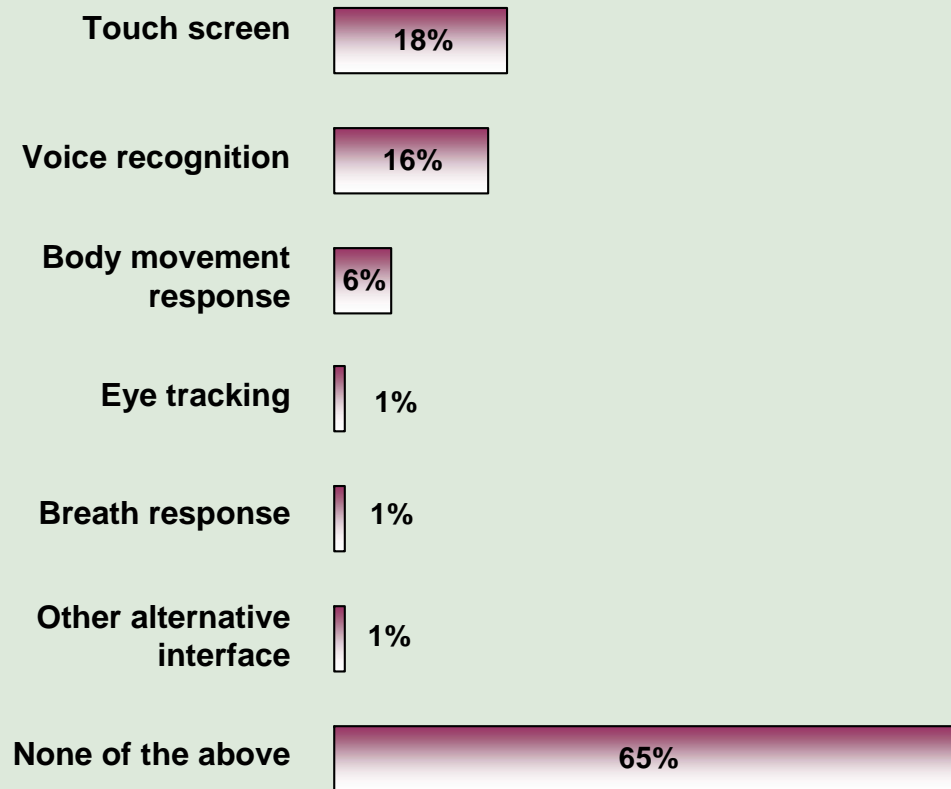
↑↓ Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level.



technology - alternative interface approaches

Do any of the technology devices you have in your household use any of the following interface approaches? (Q17)

Total Random Sample (n = 257)



General Population (n = 200)	Developmental Disabilities Samples			Other Disability (n=46)
	Total (n = 136)	Random (n=25)	Not Random (n=111)	
20%	27%	24%	27%	11%
17%	20%	12%	22%	13%
7%	8%	4%	9%	4%
1%	1%	--	1%	--
1%	--	--	--	--
1%	4% ↑	4%	5%	4% ↑
66%	52% ↓	56%	51%	67%

↑↓ Denotes statistically significant differences with the General Population proportions, at the 90% or higher confidence level.

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Thank you!

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