

2016

STATE OF THE COMMUTE

"At-a-Glance" Survey Section



From the Metropolitan Washington DC Region

National Capital Region Transportation Planning Board

Metropolitan Washington Council of Governments

This is a “At a Glance” section from the 2016 State of the Commute (SOC) Report showing key figures and tables on Telework in the Washington, DC metropolitan region. To view the full report, go to www.commuterconnections.org.

The SOC survey also explored respondents’ telework experience. For purposes of this survey, teleworkers were defined as “wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day, instead of traveling to their regular workplace.”

This definition specifically excluded workers who worked at client sites outside of the Washington region and workers, such as sales or equipment repair staff, who traveled to multiple customer locations during the course of the day. The definition also excluded respondents who worked a portion of the normal workday at home, for example while waiting for a delivery, but traveled to the regular workplace for another part of the day. These situations are not generally considered telework for transportation-related purposes. This section presents telework results for 2016 and, in some tables, results for previous SOC surveys.

Current and Potential Telework

Respondents who Currently Telework

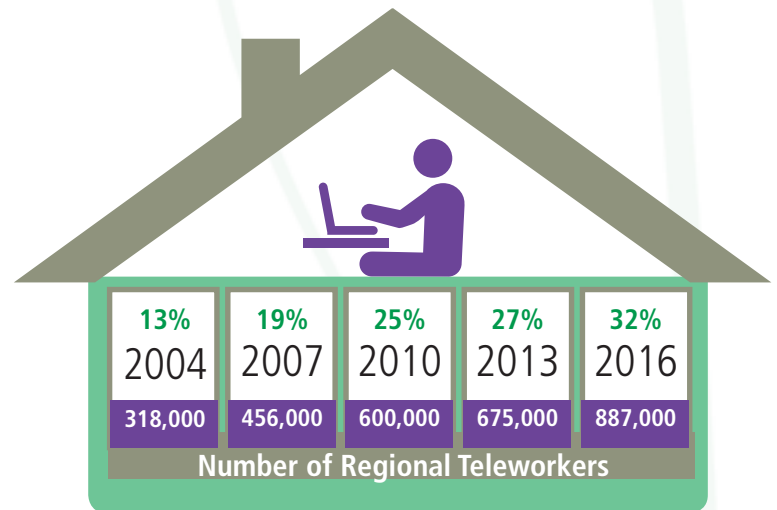
Respondents were read the above definition of telework and asked if they would consider themselves teleworkers based on this definition. Three in ten (30%) regional workers said they teleworked, either regularly or occasionally. This represented about 887,000 workers region-wide.

Teleworkers accounted for a higher percentage, 32%, of “commuters,” regional workers who would travel to a main work location on non-telework days. Using the commuter base excludes workers who were self-employed and for whom home was their only workplace. These self-employed workers would not make commute trips to an outside work location; thus, excluding them from the calculation of teleworkers reflects a more realistic picture of the role of telework in eliminating commute trips.

The 32% telework percentage represents a steady growth over the telework percentage from the 2004 survey, when only 13% of employees teleworked. The percentage growth also equals significant growth in the total number of teleworkers, from 318,000 in 2004 to 887,000 in 2016.

Percentage of Commuters who Telework 2004, 2007, 2010, 2013, 2016

(2004 n = 6,851, 2007 n = 6,168, 2010 n = 6,050, 2013 n = 5,892, 2016 n = 5,503)



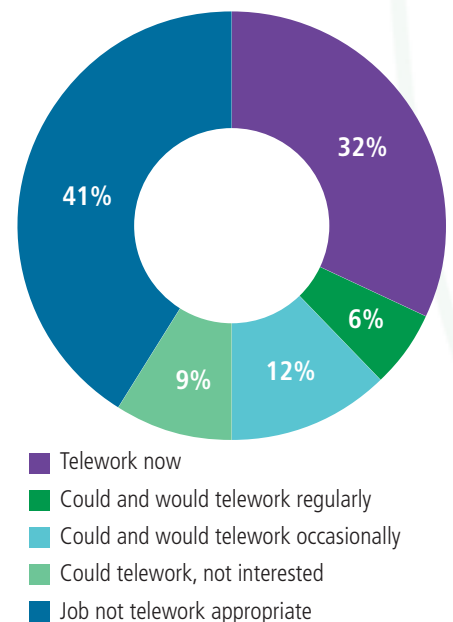
Interest in Telework

Commuters who worked at a location outside their homes and who did not telework at the time of the survey were asked if their job responsibilities would allow them to work at a location other than their main workplace, at least occasionally. Four in ten (40%) said they had telework-appropriate job responsibilities.

These respondents were then asked if they would want to telework. A large share of these respondents said they would be interested in telework on either an occasional basis or a regular basis. These interested respondents equaled about 518,000 commuters (18% of all commuters).

These results suggest that even as the number of teleworkers has grown in the Washington metropolitan region, additional telework potential exists. The next figure summarizes the telework status of all respondents who were “commuters,” that is, not self-employed/work at home full-time.

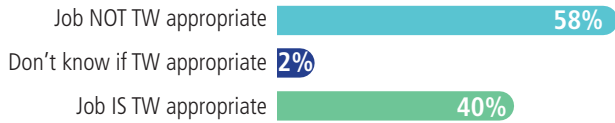
Telework Status Distribution
(n = 5,503)



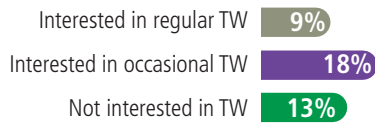
Potential for Telework Among Non-teleworkers

(n = 3,605)

Commuters who don't telework



Commuters with telework appropriate jobs



About 887,000 regional commuters (32%) teleworked at the time of the survey. An additional 18% of commuters “could and would” telework, that is, they had job responsibilities that could be done away from the main workplace and they would be interested in teleworking, if given an opportunity. These commuters represented about 518,000 potential teleworkers. The remaining commuters said they would not be interested in teleworking (9%) or that their job responsibilities could only be performed at the main workplace (41%).

The table to the right presents the 2016 results shown above, with additional comparisons for 2013, 2010, 2007, and 2004. The percentage of current plus potential telework has grown dramatically from 29% in 2004 to 50% in 2016.

Interestingly, the percentage of commuters who said their jobs were incompatible with telework dropped from 65% in 2004 to 41% in 2016. Because it seems unlikely that the composition of jobs changed substantially in the region, this result suggests a shift in commuters’ ability or perception of their ability to perform work away from their primary work location; a larger share of commuters believed they could telework. This could be related to increasing availability of communication and computer technology, such as broadband internet, lower cost telephone options, and computer networking, or perhaps from greater understanding of telework options and a broader definition of what responsibilities were “telework-compatible.”

Telework by Personal Characteristics

Telework was not distributed equally by demographic group. This table compares the incidence of telework by respondents’ sex, race/ethnicity, age, and income. The third column shows the percentage of each demographic group who teleworked at the time of the survey (e.g., 34% of women and 29% of men). The last column shows the percentage of commuters in the group who “could and would” telework if given the opportunity (e.g., an additional 18% of women and 19% of men would telework). Note that the “could and would” percentages should be compared against the 18% of all commuters in the region who “could and would” telework.

Summary of Current and Potential Telework

Respondents who are not Self-Employed/Work at Home

Telework Status	2016 SOC (n =)	2013 SOC (n = 5,892)	2010 SOC (n = 6,050)	2007 SOC (n = 6,168)	2004 SOC (n = 6,896)
Currently teleworking	32%	27%	25%	19%	13%
Not teleworking	68%	73%	75%	81%	87%
- Job responsibilities allow telework and INTERESTED in telework (“could and would”)	18%	18%	21%	24%	16%
- Job responsibilities allow telework, but NOT INTERESTED in telework	9%	11%	9%	6%	6%
- Job responsibilities would NOT allow telework	41%	44%	45%	51%	65%



Telework by Demographic Characteristic

Some demographic groups teleworked more than did others. For example, 34% of female respondents teleworked, compared with 29% of males and 37% of Whites teleworked, compared with 27% of African-Americans and 24% of Hispanics. Use of telework appeared to increase with age up to the 35-44 years old group, peaking at 39% then declining as age increased further. And there was a strong pattern of increasing telework as income increased; 37% of workers with household incomes between \$100,000 and \$139,999 teleworked, compared with only about 9% of workers with incomes below \$30,000, 11% of workers with incomes between \$30,000 and \$59,999, and 24% of respondents with incomes of \$60,000 to \$99,999. Four in ten (43%) respondents with annual household incomes of \$180,000 or more teleworked.

The table also illustrates which groups had the greatest potential for future telework; that is, groups in which non-teleworkers would be most likely to telework in the future, if given the opportunity. In general, groups with the highest current use of telework showed the greatest additional potential and groups with low current telework also showed low potential. But some groups had noticeably higher potential than the 18% regional average. These included middle-income (\$60,000 to \$99,999 annual income) and high-income respondents (\$180,000 or more annual income), and respondents who were between 25 and 34 years old.

Demographic Group	All Commuters		
	(n=*)	Percentage who Teleworked	Percentage who "could and would" Telework**
Sex			
Female	2,667	34%	18%
Male	2,732	29%	19%
Race/Ethnicity			
White	3,785	37%	19%
African-American	983	27%	20%
Hispanic	307	24%	17%
Age			
Under 25 years	139	18%	17%
25-34	551	29%	24%
35-44	1,049	39%	20%
45-54	1,573	36%	17%
55-64	1,453	32%	15%
65 or older	514	23%	8%
Income			
Less than \$30,000	165	9%	8%
\$30,000 – \$59,999	390	11%	16%
\$60,000 – \$99,999	691	24%	22%
\$100,000 – \$139,999	1,042	37%	17%
\$140,000 – \$179,999	744	38%	19%
\$180,000+	1,186	43%	25%

* All respondents in the group, both teleworkers and non-teleworkers.

** Respondents whose job responsibilities would allow telework and who would be interested in telework

Telework by Commute Distance and Home/Work Area

Commute Characteristic	All Commuters		
	(n=)*	Percentage who Teleworked	Percentage who "could and would" Telework**
Commute Distance			
Less than 5 miles	776	22%	19%
5 – 19 miles	2,074	31%	20%
20 – 39 miles	1,308	32%	21%
40 miles +	606	40%	16%
Home Area			
Inner Core	1,528	32%	24%
Middle Ring	1,546	33%	17%
Outer Ring	2,413	28%	17%
Work Area			
Inner Core	2,406	37%	22%
Middle Ring	1,758	30%	17%
Outer Ring	1,306	22%	16%

* All respondents in the group, both teleworkers and non-teleworkers

** Respondents whose job responsibilities would allow telework and who would be interested in telework

Telework by Employment Characteristics

The survey data also showed some differences in the telework and potential telework distribution by employment characteristics. Federal agency employees teleworked at a much higher rate (45%) than the regional average and much higher than did employees who worked for non-profit organizations (33%), private employers (31%), and state/local agencies (14%).

Generally, use of telework increased with increasing employer size. Four in ten (43%) respondents who worked for employers with 1,000 or more employees teleworked and 36% of respondents who worked for employers with between 251-999 employees teleworked, compared with only about two in ten respondents who worked for employers with between 1 and 100 employees.

Some occupations also had higher telework rates than average, including executive/managerial (41%), technicians (39%), and professionals (38%). Common occupations with below average telework rates included sales (15%), protective services (15%), precision craft/production (9%), and other service, such as restaurant workers (4%).

Again, the relative percentages of non-teleworkers who could and would telework if given the opportunity generally mirrored the relative percentages of respondents who teleworked in each group. Groups with statistically higher potential than the 18% average included non-profit organization employees (24%), employees of firms with between 26 and 100 employees, and firms with between 251 and 999 employees (25%). Potential also was high among respondents in executive/management and technician occupations.

Telework by Employment Characteristics

Employment Characteristic	All Commuters		
	(n=)*	Percentage who Currently Telework	Percentage who "could and would" Telework**
Employer Type			
Federal agency	1,352	45%	20%
Non-profit organization	647	33%	24%
Private employer	2,487	31%	17%
State/local agency	688	14%	21%
Employer Size			
1 – 25	1,197	21%	16%
26 – 100	1,021	22%	23%
101 – 250	644	30%	18%
251-999	791	36%	25%
1,000 +	1,276	43%	28%
Occupation			
Executive, manager	1,203	41%	24%
Technicians/related support	339	39%	21%
Professional	1,835	38%	17%
Administrative support	427	29%	20%
Sales	258	15%	18%
Protective Services	158	15%	13%
Precision craft, production	153	9%	8%
Other service	157	4%	18%

* All respondents in the group, both teleworkers and non-teleworkers

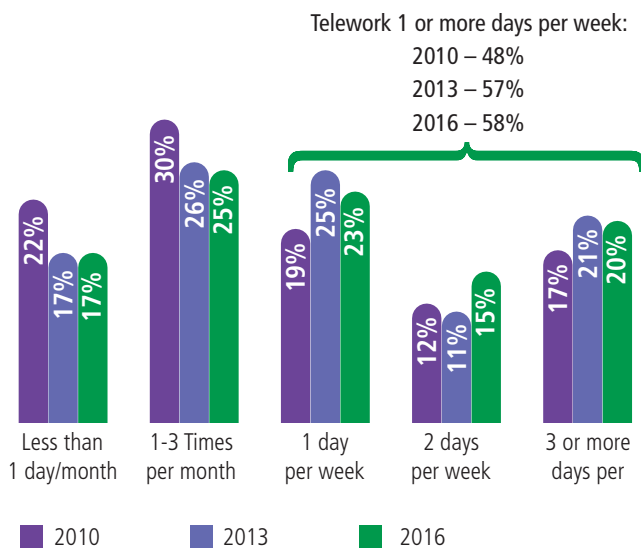
** Respondents whose job responsibilities would allow telework and who would be interested in telework

Telework/Work at Home Frequency and “Episodic” Telework

The frequency with which respondents teleworked is detailed in the next figure. About 17% of respondents who said they teleworked did so less than one time per month. One-quarter (25%) said they teleworked a few times each month. Nearly six in ten (58%) said they teleworked at least one day per week. On average, teleworkers used this arrangement about 1.38 days per week. This overall average frequency is about the same as observed in the 2013 survey and an increase from the 1.3 days per week average observed in the 2010 SOC survey.

Frequency of Telework – 2010, 2013, and 2016

(2010 n = 1,529, 2013 n = 1,559, 2016 n = 1,874)



Frequency of Work at Home Among Non-Teleworkers

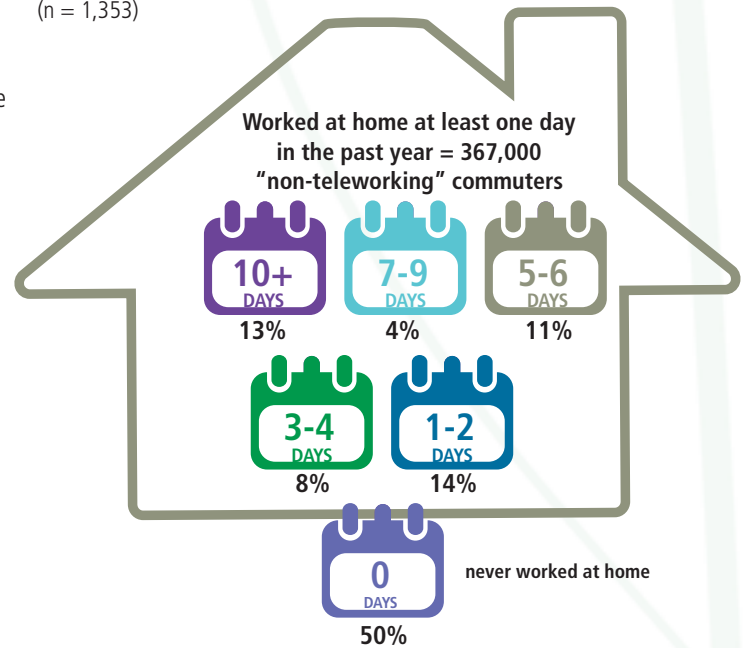
The percentage of respondents who self-defined as “teleworkers,” based on the definition they were read, likely underrepresented the true share of telework activity in the region. The research team considered the possibility that some commuters who occasionally worked at home might not consider themselves “teleworkers.” To test this premise, the 2016 SOC survey asked a follow-up question of respondents who said they were not “teleworkers” but who had telework-appropriate jobs to determine how many actually had worked at home all day on a regular workday during the past year.

Half of these respondents had worked at home at least once in the past year. These respondents represented about 13% of all commuters region-wide or a total of 367,000 commuters. When

added to the 32% of commuters who self-defined as teleworkers, the total percentage of commuters who telework/work at home at least occasionally rises to 45%.

Frequency of Work at Home in the Past Year – Non-teleworkers

(n = 1,353)



The average work at home frequency of these “non-teleworkers” was quite low. Self-defined teleworkers teleworked an average of 1.38 days per week. By contrast, “non-teleworkers,” worked at home an average of seven days per year or about 0.14 days per week (7 telework days per year/50 work weeks per year = 0.14 telework days per week).

When the average telework frequency for respondents who self-identified as teleworkers and the work-at-home frequency of non-teleworkers are applied to the estimated numbers of regional commuters, it equates to approximately 255,000 regional workers teleworking/working at home on a typical workday. About 4% of the telework/work at home days would be from commuters who do not consider themselves teleworkers occasionally working at home.

Total telework/work at home days per week = 1,275,400 weekly days

Teleworkers = 887,000 teleworkers x 1.38 days per week = 1,224,000 weekly days

Non-teleworkers work at home = 367,000 non-teleworkers x 0.14 days per week = 51,400 weekly days

Total commuters teleworking on a typical day = 255,000

(1,275,400 weekly days/5 days per week)

Episodic Telework

The teleworking calculation above for a “typical weekday” might underestimate the true traffic-reduction benefit if commuters telework/work at home on days when traffic is likely to be heavier or more difficult than normal. To examine this situation, both non-teleworkers and teleworkers were asked the following question:

Thinking about a day when traffic in the region is likely to be disrupted due to a snowstorm or a major or special event, how likely are you to [telework, work at home] that day to avoid the traffic? Are you very likely, somewhat likely, or not likely?

Among “non-teleworkers” who occasionally worked at home, 54% said they were very likely to work at home on a “major event” day and 26% were somewhat likely. An even higher percentage of teleworkers teleworked on those days; 77% said they were very likely to work at home on a major event day and 14% were somewhat likely. So teleworking/work at home likely provides a higher than average benefit for regional traffic conditions on days when traffic is likely to be at its worst.

Non-teleworkers who occasionally worked at home also were asked how likely they were to work at home on a day when they had a personal event, such as a sick child or home delivery, or when they needed uninterrupted time to complete a work assignment. Four in ten (39%) said they were very likely to work at home in this case and 33% were somewhat likely. The benefit of telework on these days would be primarily to the commuter in his/her ability to balance work and personal responsibilities.

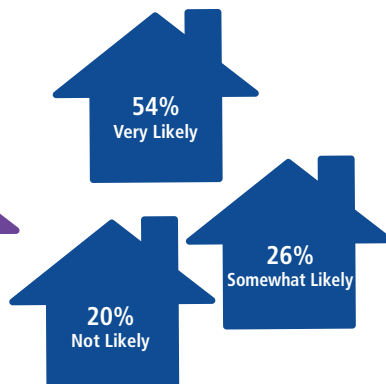
Work at Home Frequency During Major Regional Events – Teleworkers and Non-teleworkers

(Teleworkers n = 1,609, Non-teleworkers who work at home occasionally n = 705)

Teleworkers



Non-Teleworkers

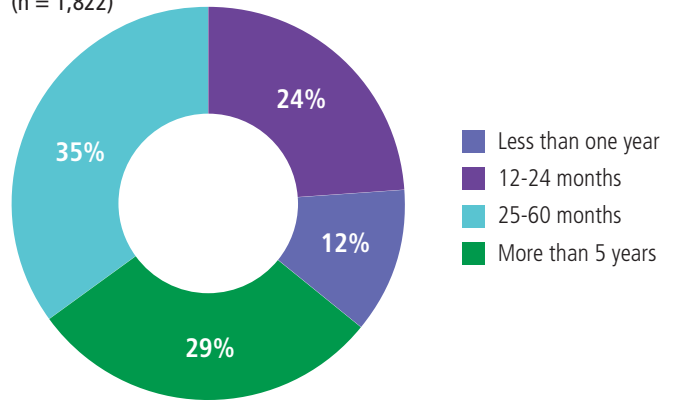


Telework Patterns

Respondents who self-defined as “teleworkers” were questioned about their telework characteristics including: telework location, length of time teleworking, access mode to telework locations outside the home, use of informal or formal telework arrangement, and source of telework information.

Length of Time Teleworking

(n = 1,822)



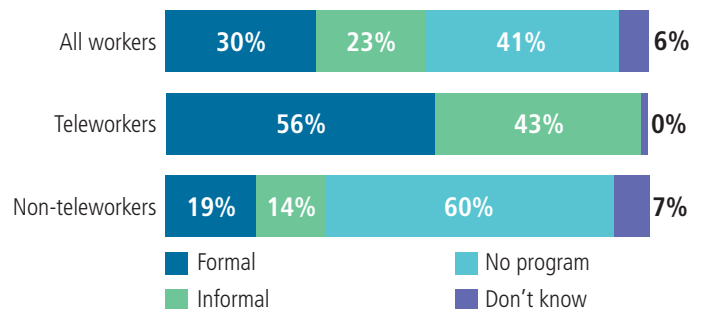
Length of Time Teleworking

Thirty-six percent of teleworkers started teleworking within the past two years and 12% started within the past year. Three in ten (29%) had been teleworking more than five years. On average, respondents had been teleworking about 58 months, approximately the same duration as was estimated in 2013 (59 months), but the trend overall has been for longer telework duration. The average telework duration was just 42 months in the 2004 survey and 53 months in 2007. In the 2004 survey, nearly half (49%) of teleworkers had started teleworking within the past two years.

Formal and Informal Telework Arrangements

All Respondents and Teleworkers vs Non-Teleworkers

(All workers n = 5,487, Teleworkers n = 1,882, Non-teleworkers n = 3,605)



Formal or Informal Telework Arrangement

Teleworkers were asked if they teleworked under a formal program or through an informal arrangement with a supervisor. Respondents who said they were not teleworkers were asked if their employer had a telework program, even though the respondent did not use it.

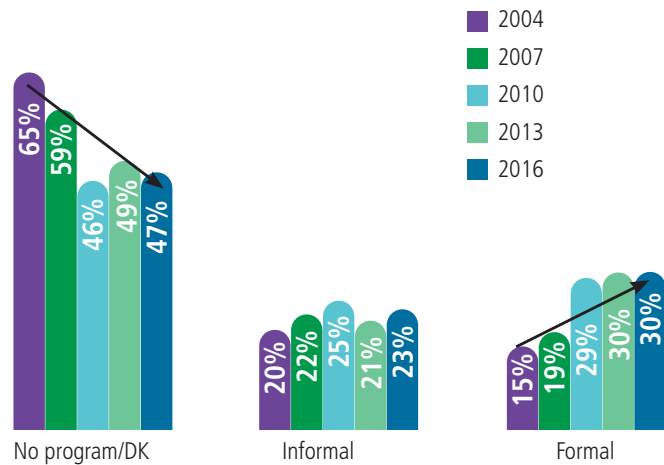
More than half (53%) of all respondents said their employers allowed some telework, either under a formal program (30%) or an informal arrangement (23%). The remaining respondents said their employers did not have any telework program (41%) or that they didn't know about any program (6%).

The figure on the previous page also presents the distribution of telework availability among teleworkers and non-teleworkers. Teleworkers were much more likely than were other respondents to work for an employer with a formal telework program. More than half (56%) of teleworkers said they teleworked under a formal arrangement and 43% teleworked under an informal arrangement with their supervisor. This represents a continued shift from 2004, when only 32% of teleworkers had a formal agreement. This appears to signal a greater acceptance of formal telework.

By contrast, only 19% of non-teleworkers said their employers had a formal telework program and 14% said telework was permitted under informal arrangements. Two-thirds said the employer had no program (60%) or they didn't know if a program existed (7%).

Telework Arrangements – 2004, 2007, 2010, 2013, 2016

(2004 n = 6,896, 2007 n = 6,168, 2010 n = 5,854, 2013 n = 5,892, 2016 n = 5,487)



Telework Arrangements 2004 through 2016 – The figure above shows the incidence of telework arrangement in 2004, 2007, 2010, 2013, and 2016. The share of employees that reported telework availability increased substantially between 2004 and 2010,

but leveled off at that point. In the 2004 SOC survey, only 35% of respondents noted that their employer allowed telework, either formal or informal.

Formal or Informal Telework Arrangements By Employer Type

Program Type	Federal Agencies (n = 1,352)	Non-profit Organizations (n = 647)	Private Employers (n = 2,478)	State/local Agencies (n = 688)
No telework program/Don't know if program exists	23%	40%	53%	62%
Telework permitted	77%	60%	48%	38%
Formal program	69%	25%	18%	20%
Informal Arrangement	8%	34%	30%	18%

Telework Arrangement by Employer Type – The availability of telework arrangements varied widely by respondents' employer types. Formal programs were most common among respondents who worked for a Federal government agency.

Formal or Informal Telework Arrangements by Employer Size

Program Type	1-50 Employees (n = 1,688)	51-100 Employees (n = 530)	101-250 Employees (n = 644)	251-999 Employees (n = 791)	1,000 + Employees (n = 1,276)
Formal program	11%	20%	27%	37%	59%
Informal arrangement	26%	25%	26%	26%	15%
No program	63%	55%	47%	37%	26%

Telework Arrangement by Employer Size – Respondents who worked for large employers were most likely to have access to a telework program and to have access to a formal program.