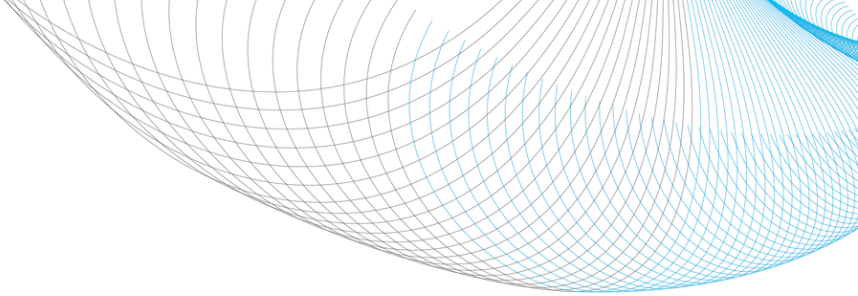


# The State of Telework in the U.S.

How Individuals, Business, and Government Benefit

June 2011  
Kate Lister & Tom Harnish

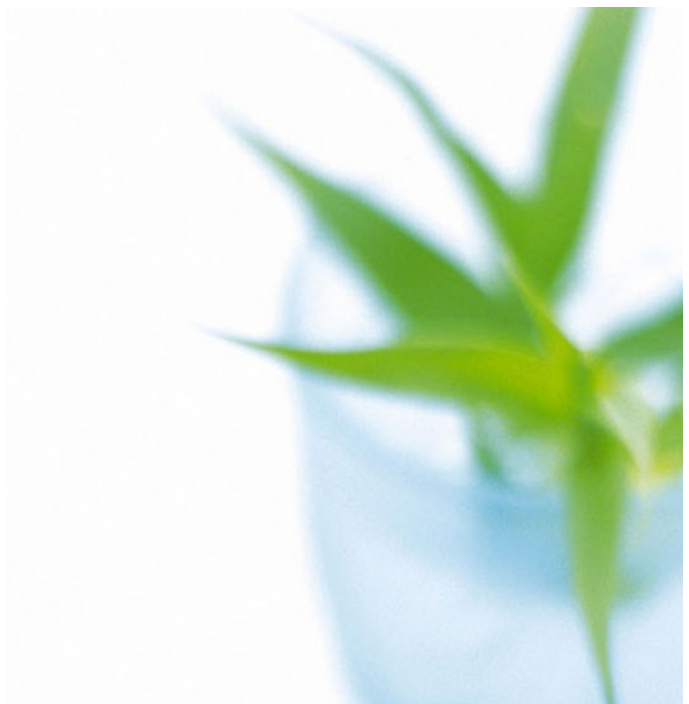


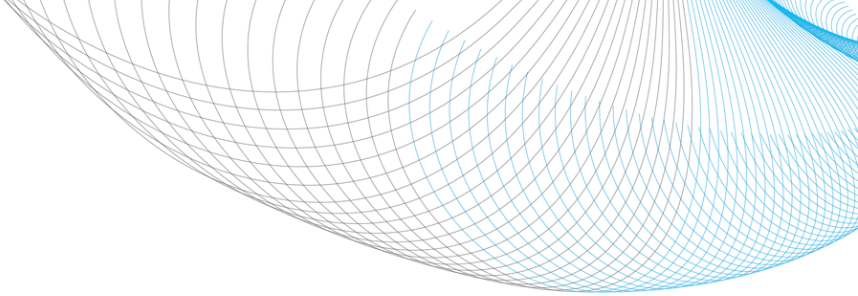


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## INTRODUCTION

The purpose of this paper is to shed light on when and where work is done in the U.S., how that’s changed in recent years, and where the trend might be headed.

But there’s a problem. *“The task of trying to make sense of the various government sources of work at home data is a statistical Vietnam,”* said Bruce Phillips while he was senior fellow at the National Federation of Independent Business Research Foundation. *“The data goes in, but you can’t get it out.”*

Part of the problem is a matter of terminology. So to make sure there’s no confusion, the focus of this report is on those who work at home (or in some cases elsewhere) and are not self-employed—neither as a sole proprietor or in an incorporated business)—in other words, employees who telecommute, or ‘workshift’ as some say. To avoid constant repetition throughout this paper, unless otherwise noted, the words ‘work-at-home’ (WAH) and the term ‘workshift’ refer to employees who fit the above conditions.



No one would disagree that the U.S. workforce is increasingly mobile. But, beyond that broad statement, we know little about the rate of increase in mobility—how often people are out of the office, where they are, and what they’re doing. For that matter, there’s no agreed-upon method of defining who *they* are.

Do you include an employee who takes work home on weekends as someone who works from home? What about a plumber who has an office at home, but earns his living only when he’s on the road? Does it matter whether a person who works at home is employed by a private company, employed by the government, or is self-employed? What about an unpaid family worker, do we include him or her? How do you categorize a mobile worker who works at client locations, in their car, or at a coffee shop? Does someone who works remotely one day a week belong in the same statistical bucket as someone who works at home all the time?

If we could answer these questions and collect consistent data about how and where people work, it would help business leaders:

- ▶ Better understand their facilities’ needs, increase workspace efficiency, and reduce real estate overhead
- ▶ Evaluate their IT readiness and the communications, collaboration, and technology needs of their workforce
- ▶ Effectively integrate employee mobility into hiring, training, and management paradigms
- ▶ Develop and market products and services that support remote work
- ▶ Better address the special needs of the disabled, of military families, and of caregivers

For city, state, and federal leaders, a better understanding of workforce mobility could help them:

- ▶ Evaluate the extent to which home-based work can reduce traffic congestion and greenhouse gases in their communities
- ▶ Solve regional issues such as outbound workforce migrations, talent shortages, and labor force mismatches

- ▶ Understand the ROI of broadband investments
- ▶ Reduce the offshoring of jobs
- ▶ Encourage populations to work and shop where they live
- ▶ Help establish laws to encourage home-based work and abolish those that discourage it
- ▶ Help understand the role that work-at-home programs could play in transportation demand management, energy conservation, and greenhouse gas emissions
- ▶ Reduce un- and under-employment
- ▶ Increase productivity
- ▶ Save money

Until now, some of the most informative data about when and where people work have been buried in nearly impenetrable jungle of databases. We've hacked our way through them, and made some surprising discoveries.

We hope you'll find *The State of Telework in the U.S.* both interesting and informative. What's more, we hope it will leave at least some of you wanting more because there is still much we don't know about the growing population of anytime, anywhere workers.



## KEY FINDINGS

Unless otherwise noted, all telecommuter statistics refer to non-self-employed people who principally work from home.

- ▶ Forty-five percent of the US workforce holds a job that is compatible with at least part-time telework.
- ▶ Fifty million U.S. employees who want to work from home hold jobs that are telework compatible though only 2.9 million consider home their primary place of work (2.3% of the workforce).
- ▶ The existing 2.9 million US telecommuters save 390 million gallons of gas and prevent the release of 3.6 million tons of greenhouse gases yearly.
- ▶ If those with compatible jobs worked at home 2.4 days a week (the national average of those who do), the reduction in greenhouse gases (51 million tons) would be equivalent of taking the entire New York workforce off the roads.
- ▶ The national savings would total over \$900 billion a year; enough to reduce our Persian Gulf oil imports by 46%.
- ▶ The energy saved annually from telecommuting could exceed the output of all renewable energy sources combined.
- ▶ Regular telecommuting grew by 61% between 2005 and 2009. During the same period, home-based self-employment grew by 1.7%.
- ▶ Based on current trends, with no growth acceleration, regular telecommuters will total 4.9 million by 2016, a 69% increase from the current level but well below other forecasts.
- ▶ Seventy-six percent of telecommuters work for private sector companies, down from 81% in 2005—the difference is largely attributable to increased WAH among state and federal workers.
- ▶ Using home as a 'reasonable accommodation' per the Americans with Disabilities Act, 316,000 people regularly work from home.
- ▶ The typical telecommuter is a 49-year-old, college-educated, salaried, non-union employee in a management or professional role, earning \$58,000 a year at a company with more than 100 employees.

- ▶ Relative to the total population, a disproportionate share of management, professional, sales and office workers telecommute.
- ▶ Non-exempt employees are far less likely to work at home on a regular or ad hoc basis than salaried employees.
- ▶ Over 75% of employees who work from home earn over \$65,000 per year, putting them in the upper 80 percentile relative to all employees.
- ▶ Larger companies are more likely to allow telecommuting than smaller ones.
- ▶ Non-union organizations are more likely to offer telecommuting than those with unions.
- ▶ In a quarter of the nation's 20 largest metro areas, more people now telecommute than use public transportation as their "principal means of transportation to work."
- ▶ There is no positive correlation between cities with the worst congestion or longest round-trip commutes and the extent of telework. For example, among the largest 15 metro areas, New York had the third lowest percent of regular telecommuters (2.1%).
- ▶ Among the 15 largest U.S. metro areas, San Diego-Carlsbad-San Marcos (CA) has the highest concentration of people who consider home their primary place of work (4.2%) and Detroit-Warren-Livonia (MI) has the lowest (1.8%).
- ▶ The region with the fastest percentage growth in regular employee telecommuting was Riverside-San Bernardino-Ontario (CA)—posting a 77% increase since 2005 (based on growth relative to the local total population and among populations with over 1 million workers).
- ▶ Among the 124 metropolitan areas evaluated, 34% showed greater five-year growth in regular telecommuters than the national growth.
- ▶ The jury is still out on what impact the recession had on telecommuting. It appears that occasional telework decreased, and regular telework (at least weekly) increased, but we won't know until the 2010 Census data is available. Whatever the conclusion, the five year telework growth rate has been significant
- ▶ The biggest barrier to telecommuting, by a wide margin, is management fear and mistrust.

## METHODOLOGY

Various federal agencies collect information about where people. The Census Bureau collects data on how people travel to work, with one option not traveling at all. The Bureau of Labor Statistics (BLS) captures information on where and when people work. BLS also polls companies about whether they offer flexible workplace options. The IRS and the SBA gather information about home-based businesses. And the Office of Personnel Management (OPM) tracks telework practices in the federal workforce.

In the private sector, a number of organizations track various forms of mobile work, including WorldatWork.

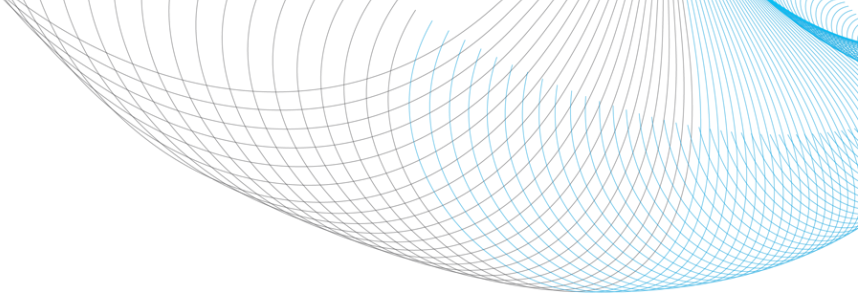
With all that tracking and gathering, you'd think it would be easy to create a picture of where and when people work. Unfortunately, it's not. The following is a summary of the various sources of data used in compiling this paper, along with an explanation of the limitations of each.

## PUBLIC SECTOR DATA

### Census / American Community Survey (ACS)

ACS is a nationwide survey conducted annually by the U.S. Census Bureau. It produces one-year estimates for geographic areas with a population of 65,000 or more: the nation, all states, the District of Columbia, all congressional districts, approximately 800 counties, and 500 metropoli-





tan and micropolitan statistical areas. About three million housing unit addresses and 307 million people are represented in the weighted sample.

ACS asks survey respondents: “What was your primary means of transportation to work during the survey week?”

- ▶ Car, truck, or van - driving alone
- ▶ Car, truck, or van - carpooled
- ▶ Public transportation
- ▶ Walked
- ▶ Taxi, motorcycle, or bike
- ▶ Worked at home

### ACS — Limitations

While the question offers some insight into the WAH workforce, it falls short of providing useful answers in a number of ways:

1) While the respondent is also asked whether they work for a private or public sector organization, if they’re self-employed, or if they’re an unpaid family worker, that ‘class of worker’ data is only tied to the ‘means of transportation to work’ category in a handful of Census Bureau reports.

For example, American Fact Finder, the primary search tool for Census data, does not allow users to determine the number of non-self-employed people in the construction industry who work from home in Millville, New Jersey. It could be used to determine in general how many were self-employed, were unpaid family workers, or were state government workers. It could also determine how many people in Millville just worked from home, but it would not allow you to break out the self-employed.

2) ACS only captures information about people who primarily work at home, not those who do so on an occasional basis—a group far larger than those who do so most of the time.

3) ACS does not capture information about people who work remotely from client offices, shared office centers, coffee shops, their cars, or other ‘third places’.

The Census Bureau occasionally conducts research that addresses some of these limitations, but they have not done so since 2004.

### Use of ACS Data in This Paper

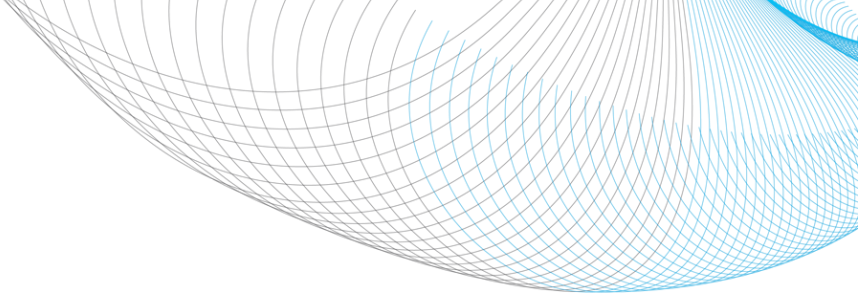
Because of the limitation of available ACS standard tables and online query interface, most of the data in this report was compiled from our own special tabulations of the Census Public Use Microdata Samples (PUMS)—a statistically accurate representation of the population based on a 5% micro-sample.

Five-year trend data is based on PUMS one-year estimates from 2005 through 2009, the most recent year available.

Certain metropolitan areas that were redefined during the five-year period are excluded from the trend analysis. Among those with workforces larger than one million people; the Denver and Miami metropolitan areas were omitted for this reason.

The statistical validity of changes in the WAH population obviously diminishes with a decrease in population size. In





general, the data regarding the total regional WAH population is statistically valid, but the data for areas within populations smaller than a million may not be. For this reason, we primarily focus on larger metro regions.

### Bureau of Labor Statistics (BLS)

Two Bureau of Labor Statistics (BLS) surveys—the American Time Use Survey (ATUS), and the National Compensation Survey (NCS)—offered some useful material for this paper. However, the annual BLS survey does not allow standard searches or produce reports that distinguish the self-employed from the non-self employed at the industry, occupation, or other granular levels. The most recent surveys that do separate the self-employed from the rest of the WAH population cover only 2003 through 2007.

Further, BLS respondents are asked to answer questions based on where they worked *on a particular survey day*, which may or may not be indicative of their regular workplace.

### BLS American Time Use Survey (ATUS)

ATUS is conducted annually. It includes, among other things, information about where and when people work—at their workplace, at home, or at another location. The data is collected through telephone interviews.

### ATUS — Limitations

ATUS defines the term 'working' as time employed people spend doing tasks required for a job. A person who reads work-related e-mail messages for 10 minutes on a Saturday is counted as working on that day, as is someone who worked a 12-hour shift.

ATUS does not distinguish between people who are paid to work from home and those who simply take work home.

### BLS National Compensation Survey (NCS)

The National Compensation Survey is conducted annually. It collects information from companies about the compensation and benefits they offer.

One benefit choice is 'flexible workplace'. BLS defines this as: "Permits workers to work an agreed-upon portion of their work schedule at home or at some other approved location, such as a regional work center." They note, "...such arrangements are especially compatible with work requiring the use of computers linking the home or work center to the central office."

### NCS — Limitations

NCS data only indicates who offers a benefit, not who uses it, how, or how often.

Their count does not include companies that offer workplace flexibility on an ad hoc or occasional basis.

### Other Federal Data

Data about participation in telework programs within the federal workforce comes from the annual *Status of Telework in the Federal Government—Report to Congress*.

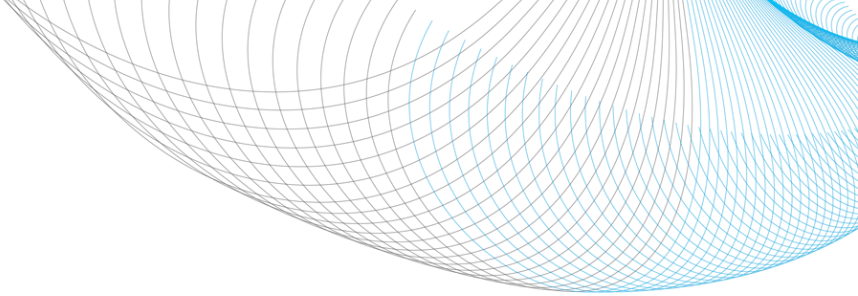
## PRIVATE SECTOR DATA

### WorldatWork

WorldatWork is a non-profit organization with 30,000+ members in 75 countries. Nearly all Fortune 1000 companies are WorldatWork members. Results from two of their reports are included in this paper: *Telework 2011—A WorldatWork Special Report* and the *2011 Survey on Workplace Flexibility*.

### Telework 2011—A WorldatWork Special Report

Together with The Dieringer Research Group, WorldatWork has conducted periodic surveys about ad hoc, oc-



casional, and regular telework among its members since 2003.

Their *Telework 2011—A WorldatWork Special Report* (based on 2010 data) was released on June 23, 2010.<sup>1</sup>

Approximately 1,000 randomly selected U.S. adults were surveyed for the 2011 report. The data was weighted to match the current population.

### Telework 2011 – Limitations

Because respondents self-reported their business type, some self-employed respondents may be counted among employee telecommuters. This may be significant because according to ACS data, the self-employed population suffered significant declines during the recession, while the employee telecommuter population grew.

Due to the small sample size, the teleworker segment of their sample has a margin of error of ±10 percent.

### Survey on Workplace Flexibility

The *WorldatWork 2011 Survey on Workplace Flexibility*<sup>2</sup> asked its 5,191 global members what types of flexible work arrangements they offered to some or all employees. Of this group, 537 responses were included in the results.

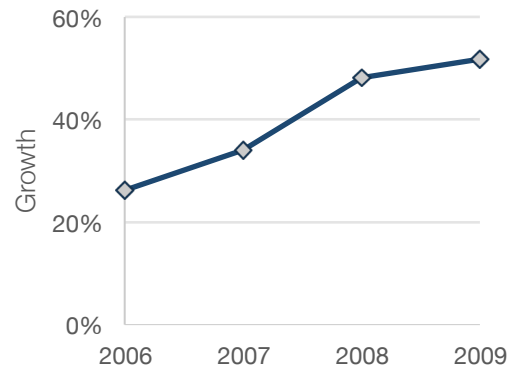
### Survey on Workplace Flexibility – Limitations

Because WorldatWork’s membership is comprised of a disproportionate share of large employers, (91 percent have more than 100 employees), their data under-represents small employers.

## WAH TRENDS

ACS data showed that while the growth rate varied from year to year, the employee WAH population grew 61% between 2005 to 2009 (see Chart 1).

Chart 1 - Cumulative Increase In WAH  
Source: 2006 to 2009 ACS PUMS Data



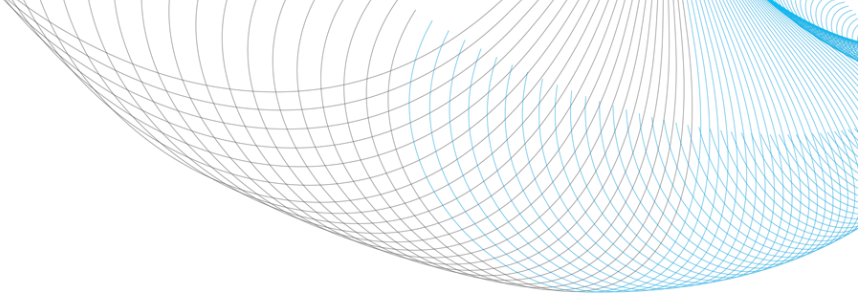
WorldatWork’s *Telework 2011* survey (conducted in 2010) showed that in the wake of a 74 percent increase in the WAH population between 2005 and 2008, there was a small decline between 2008 and 2010 (460,000, when adjusted for the decline in the overall labor market).

Since ACS reports those who consider home their primary place of work and WorldatWork counts those who work at home at least one day a month, we won’t know what impact the recession had on multiple-day-a-week teleworkers until the 2010 ACS data is available.

What is clear is that while the recession may have slowed the rate of growth of telework, the 5-year picture shows significant growth.







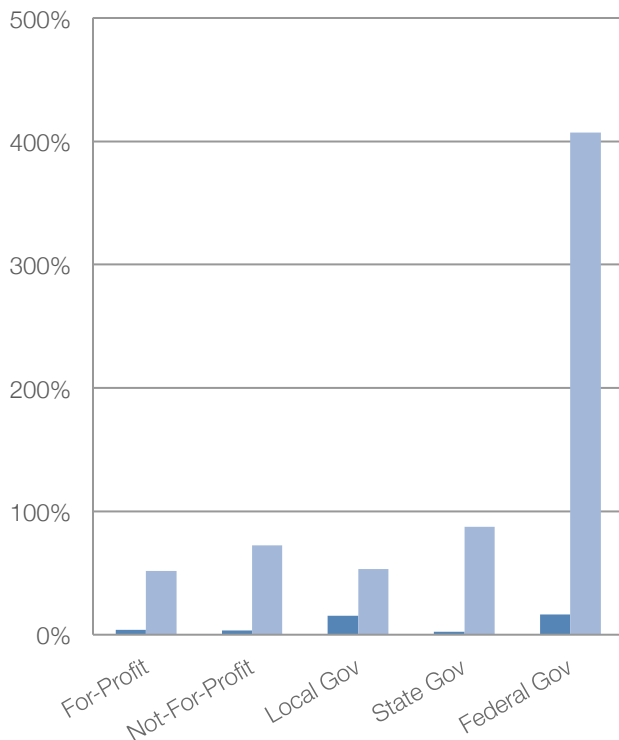
## WAH BY CLASS OF WORKER

Across all types of workers, the WAH population grew disproportionately faster than the total workforce (Chart 2).

**Chart 2 - Workforce & WAH Growth  
2005-2009**

Source: ACS PUMS Data

■ Total Workforce Growth ■ WAH Growth



In 2005, WAH employees totaled 1.5% of the non-self-employed population. By 2009, an additional 1.1 million WAH employees boosted that to 2.3% (Table 1, opposite).

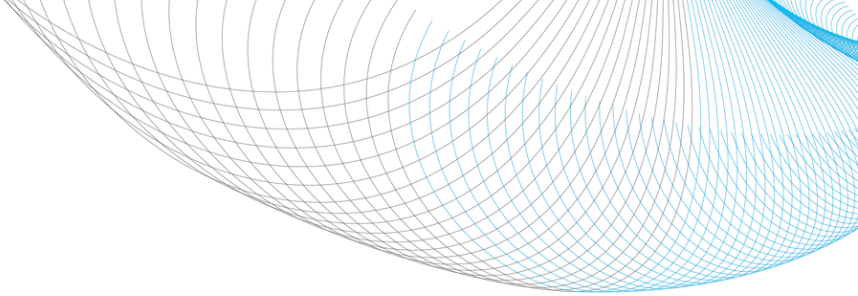


**Table 1 – 2005 and 2009 WAH by Class of Worker as a Percent of Total Workforce by Class of Worker**

Class of Worker	2005	2009
Private For-Profit	1.6%	2.4%
Private Non-Profit	1.8%	2.7%
Local Government	0.7%	1.1%
State Government	1.4%	2.2%
Federal Government	0.7%	3.2%
<b>Total</b>	<b>1.5%</b>	<b>2.3%</b>

Source: 2005 and 2009 American Community Survey

The federal government has the highest percentage of WAH employees within their own population (see Table 1) though they only account for 5.2% of all WAH employees (see Table 2, next page).



**Table 2 – 2009 WAH Population by Class of Worker**

Employee of:	#	% of WAH
Private For-Profit	2,225,497	76.0%
Private Non-profit	298,436	10.2%
Local Government	113,007	3.9%
State Government	138,801	4.7%
Federal Government	153,492	5.2%
<b>Total</b>	<b>2,929,233</b>	<b>100.0%</b>

Source: 2009 American Community Survey

Table 3 below shows that in 2005, employees of private for-profit companies accounted for over 80% of the regular WAH population. By 2009, largely due to greater adoption among federal workers, while their total numbers grew, the private for-profit sector share of WAH employees dropped to 76%.

**Table 3—Work at Home**

**% of WAH Total by Class of Worker**

Class of Worker	2005 % of WAH Total	2009 % of WAH Total
Private For-Profit	80.7%	76.0%
Private Non-Profit	9.5%	10.2%
Local Government	4.1%	3.9%
State Government	4.1%	4.7%
Federal Government	1.7%	5.2%

Source: 2009 American Community Survey

### Private For-Profit Employees

In 2009, 2.2 million employees of private for-profit companies worked from home the majority of the time. They account for 76% of all WAH employees, but lag behind other employer categories in terms of participation rates. And, in part because it's harder to achieve a percentage increase in a large number than it is in a small one, the for-profit employer population also showed the slowest 5-year growth (51.6% - see Chart 2 on page 9).

### Private Non-Profit Employees

About 300,000 non-profit employees called home their primary place of work in 2009. They were 10.2% of the WAH population, and posted the largest growth among the various employer categories during the recession. This is perhaps because non-profit organizations suffered more than others did during the recession, losing both patrons and investment earnings, and they responded by turning to more efficient and effective WAH arrangements.

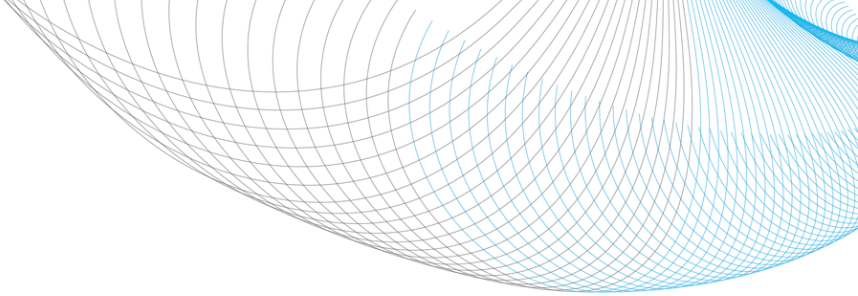
### Local and State Government Employees

Local and state government employees together accounted for 8.6% of the WAH workforce. They represent the lowest rates of participation among the various classes of workers. Some states, including Georgia, Virginia, and Arizona, have passed legislation to increase WAH within their workforce, but the majority of states have not.

### Federal Employees

The WAH standout, in terms of both growth and participation rates, was the federal workforce. In part for the same reason the largest group grew the slowest, the smallest group grew the fastest.

Federal employees who considered home their primary place of work totaled only 30,000 in 2005. By 2006, that number had grown by over 400%, though little progress has been made since that time (see Discussion Section for details). According to ACS data, 3.2% of federal employees called home their primary place of work in 2009. By the government's own count, while 61% of the 2 million



federal workers were considered eligible for telework, only about 100,000, or 5.2% of them did.

Though the federal workforce participation rate is higher than the rate of all other classes of workers, it's surprisingly low considering that since 2000 a federal mandate has required that every U.S. government employee work from home to the maximum extent possible.

The original driving force for WAH among federal workers was the threat of a bird flu pandemic. Since then, Hurricane Katrina, 'Snowmageddon', Swine Flu, and other crises have bolstered the government's resolve to make telework a continuity of operations (COOP) necessity.

In the current administration, the push for more federal telework has moved beyond COOP. Referring to himself as the Teleworker in Chief in his early days in office, President Obama has lobbied for telework.

In December of 2010, the Telework Enhancement Act passed through both houses of Congress with bipartisan support. While no funding was provided in the bill, agencies have been charged to:

- Designate a senior manager to coordinate the agencies' telework program
- Determine eligibility of employees, notify them of their eligibility status, and enter into written agreements with them for those who wish to telework
- Develop and implement telework training programs for managers and employees

The Office of Personnel Management's Director, John Berry, couldn't have been clearer about his and the current administration's support for telework in the agency's annual report on the status of telework to Congress:<sup>3</sup>

*" . . . I believe telework must be implemented with a focus on accountability. As the President said at his White House Forum on Workplace Flexibility last March, 'It's about attracting and retaining top talent in the federal workforce and empowering them to do their jobs, and judging their success by the results that they get—not by how many*

*meetings they attend, or how much face-time they log...'* Presenteeism, the practice of sitting at one's desk without working, can be just as problematic as absenteeism. I am an adamant supporter of telework because workers in an effective telework program can only be judged by their results. Those who can't perform and can't improve can't hide behind their desks. It is up to management to give our employees clear direction and support, and then trust them to deliver." —Message from the Director, 2010 Status of Telework in the Federal Government.

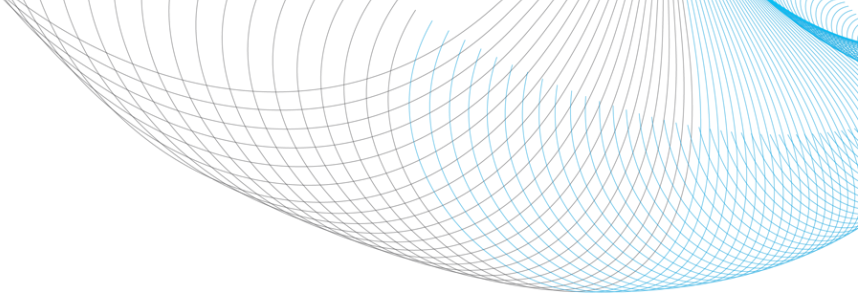
While progress has been slow, federal telework is beginning to take hold. In 2010, the Patent and Trademark Office reported that 55% of its workforce teleworks on a regular basis. At the National Mediation Board, 43% do so.<sup>4</sup>

While the Telework Enhancement Act has no real teeth in terms of sanctions for non-compliance, taken together with other Presidential directives that call for increased sustainability, better continuity of operations, transition to telework-compatible technologies, and reductions in real estate footprints, we expect to see some real strides in federal telework in the years ahead.

## WAH AS A COMMUTER ALTERNATIVE

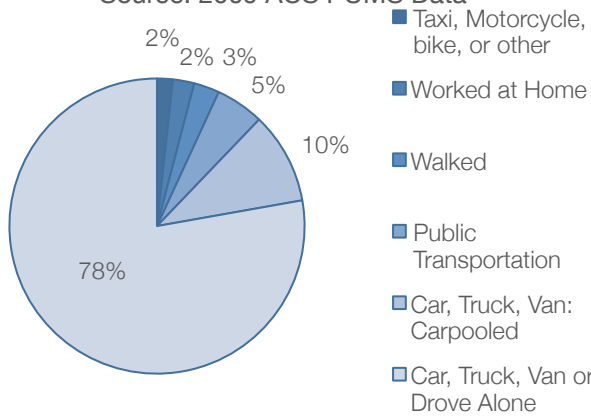
As a primary means of transportation, *not* traveling at all now accounts for 2.3% of the non-self-employed employee workforce (see Chart 3), and is growing at a far greater rate than all other modes.





**Chart 3 - Means of Transportation**

Source: 2009 ACS PUMS Data



In a quarter of the nation's largest 20 metropolitan areas, more people work at home than travel to work via public transportation, walking, taxi, motorcycle, or bike (Table 4).

**Table 4—Metro Areas Where WAH Exceeds Commuter Use of Public Trans., Walking, or Taxi/Motorcycle/Bike (ordered by size)**

- Dallas-Fort Worth-Arlington TX
- Phoenix-Mesa-Scottsdale AZ
- Detroit-Warren-Livonia MI
- San Diego-Carlsbad-San Marcos CA
- Tampa-St. Petersburg-Clearwater FL

Source: 2009 ACS PUMS Data among populations > 1 million

### Top WAH Metro Areas

At the national level, the WAH population grew almost 12 times faster than the general population. In some areas, such as Riverside, CA, and Tampa, FL, it grew even faster.

Table 5 shows the 10 metro areas with the fastest WAH growth relative to their total workforce, and the actual WAH growth within those areas.

Eleven of the nation's 15 largest metropolitan areas have a higher percentage of people working from home than the national average of 2.3%. The San Diego-Carlsbad-San Marcos area topped the list with 4.2% of the population working from home most of the time. Detroit and Houston tied for the bottom slot (Table 6, next page).

**Table 5—Largest WAH Growth Compared to Workforce Growth**

Metro Area	% Growth	Compared to Workforce
Riverside-San Bernardino-Ontario, CA	76.6%	25.5x
Tampa-St. Petersburg-Clearwater, FL	55.0%	18.4x
Salinas, CA	37.5%	18.1x
Chicago-Naperville-Joliet, IL-IN-WI	49.0%	14.1x
San Jose-Sunnyvale-Santa Clara, CA	129.6%	13.4x
Portland-Vancouver-Beaverton, OR-WA	56.6%	11.6x
Pittsburgh, PA	41.8%	9.7x
Minneapolis-St. Paul-Bloomington, MN-WI	34.5%	9.6x
Los Angeles-Long Beach-Santa Ana, CA	38.0%	9.6x
Phila-Camden-Wilmington, PA-NJ-DE-MD	56.2%	9.3x
Phoenix-Mesa-Scottsdale, AZ	65.2%	8.9x

Source: 2005 to 2009 ACS PUMS Data  
Rank by growth is relative to the total population growth among areas with populations > 1,000,000

**Table 6— % WAH in 15 Largest Metro Areas**  
**Source: 2005 to 2009 ACS PUMS Data**

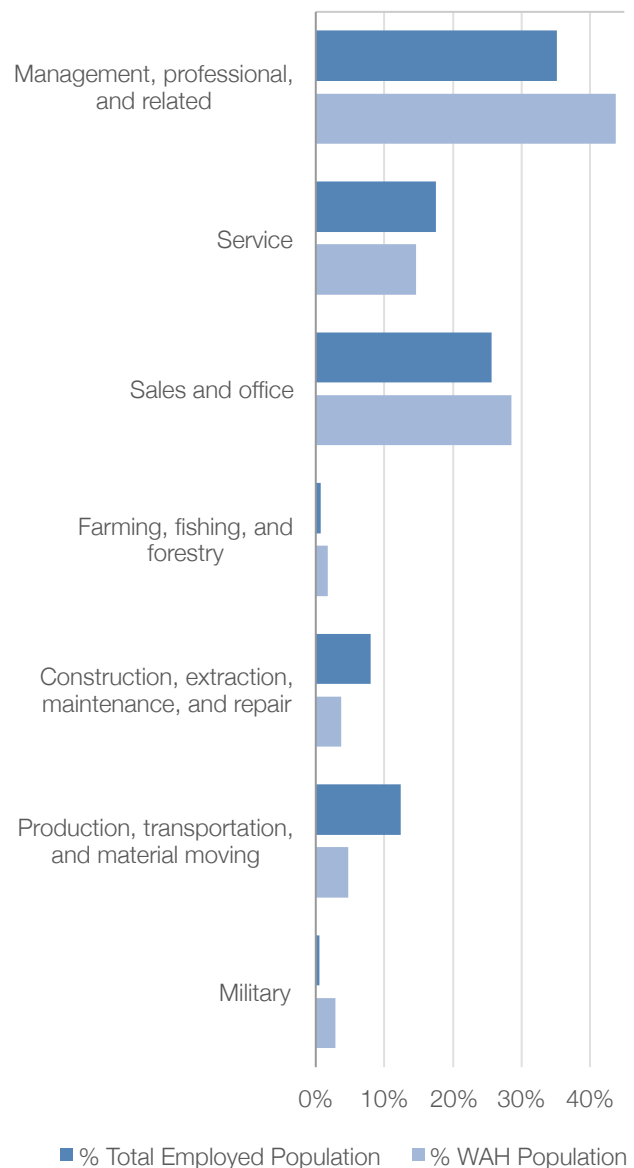
San Diego-Carlsbad-San Marcos, CA	4.2%
Atlanta-Sandy Springs-Marietta, GA	3.4%
San Francisco-Oakland-Fremont, CA	3.1%
Seattle-Tacoma-Bellevue, WA	3.0%
Phoenix-Mesa-Scottsdale, AZ	2.9%
Riverside-San Bernardino-Ontario, CA	2.7%
Dallas-Fort Worth-Arlington, TX	2.6%
Los Angeles-Long Beach-Santa Ana, CA	2.6%
Washington-Arlington-Alexandria, DC-VA-MD-WV	2.6%
Boston-Cambridge-Quincy, MA-NH	2.5%
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	2.4%
Minneapolis-St. Paul-Bloomington, MN-WI	2.3%
Chicago-Naperville-Joliet, IL-IN-WI	2.3%
New York-N. New Jersey-Long Island, NY-NJ-PA	2.1%
Houston-Sugar Land-Baytown, TX	1.8%
Detroit-Warren-Livonia, MI	1.8%

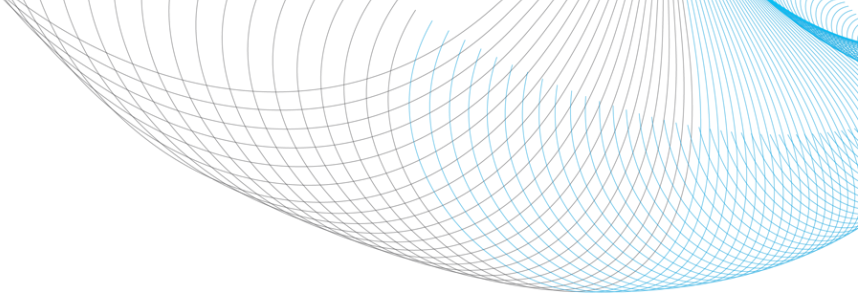
Source: 2009 ACS PUMS Data

## WHO WORKS AT HOME?

More than 70% of the WAH population holds management, professional, sales, and office jobs (compared to 61% of the total workforce; see Chart 4, opposite).

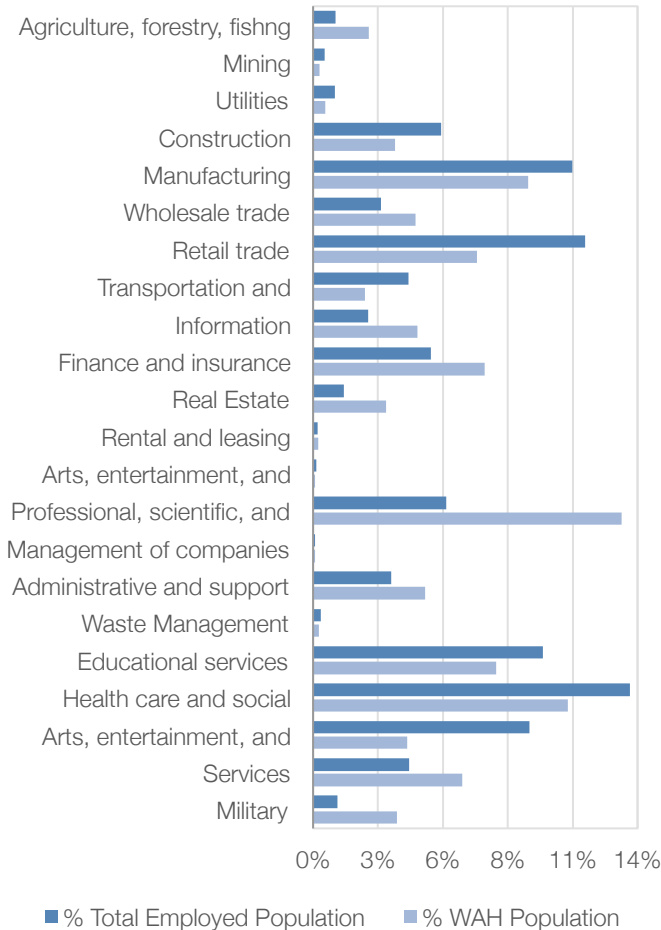
**Chart 4 - By Occupation, % Total Employed Population Compared to % WAH Population**  
**Source: 2009 ACS PUMS Data**





While their numbers are fewer, WAH now has a significant presence across occupations and industries as well (see Charts 4 and 5) because most jobs, even manufacturing, now involve some knowledge work. Thanks to technology, many in non-traditional WAH occupations and industries can now work remotely.

**Chart 5 - By Industry, % Total Employed Population Compared to % WAH Population**  
Source: 2009 ACS PUMS Data

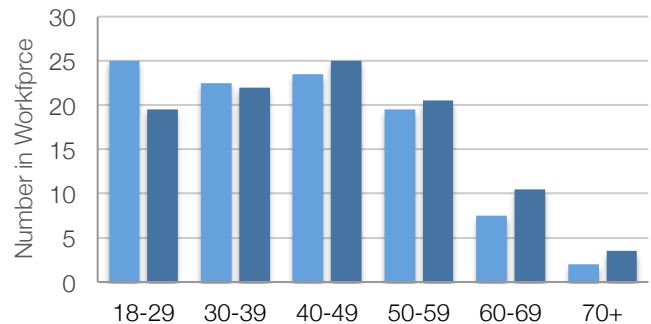


## AGE

ACS data suggests that those who WAH are older than the average worker. The greatest proportional difference is among those over 60 (see Chart 6).

This suggests that workplace flexibility is favored by Baby Boomers, perhaps as a way to slowly edge into retirement. It debunks the concept that WAH and workplace flexibility are only suited to younger, more tech-savvy employees. And it challenges the myth that flexibility is just for women with children.

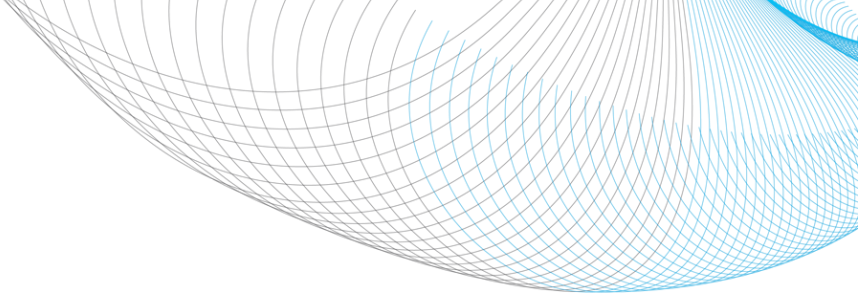
**Chart 6 - Telworkers by Age**  
Source: 2009 ACS PUMS Data



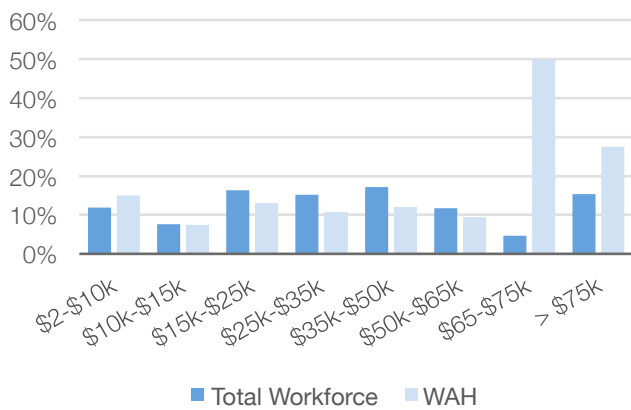
Whether the age skew is a result of who chooses to work flexibly or who's chosen to can't be determined from the data. Likely two factors are at play here. First, senior workers have had more time to earn the trust that's essential to telework. Second, they are less likely to be concerned that opting to work flexibly will impact their advancement, a concern that's frequently cited by younger workers.

## INCOME

Over three-quarters of WAH employees earn over \$65,000 a year, putting them in the 80th percentile relative to the total workforce. While some industries, such as the call center industry offer WAH to the minimum wage workers, most still treat it as a privilege (see Chart 7, next page).



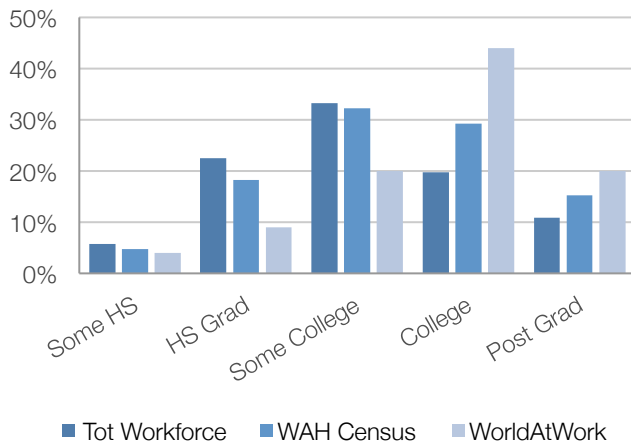
**Chart 7 - Income Distribution Comparison**  
Source: 2009 ACS PUMS Data



## EDUCATION

Most employees who work at home have at least a college degree, and a significant percentage have a post graduate degree. Again, this reinforces the observation that WAH jobs are not equally available to all workers (see Chart 8).

**Chart 8 - Education Comparison**  
Source: 2009 ACS PUMS Data



## THE SELF-EMPLOYED

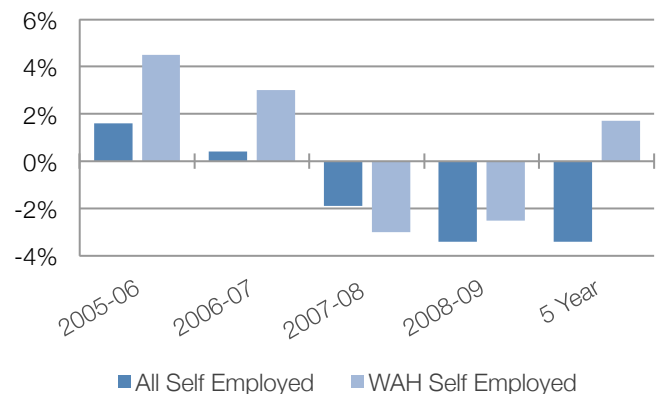
While not the primary focus of this paper, since most government reports (and therefore the media) lump the self-employed in with the rest of WAH population, it's important to understand the impact of their numbers.

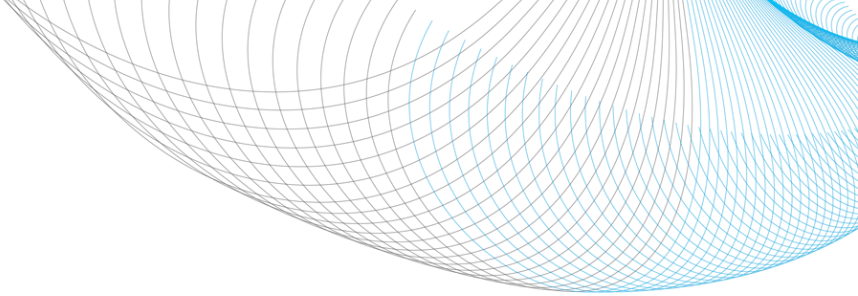
A fifth of all self-employed people work from home. They represent half of those who consider home their primary place of work and are an important part of the economy and the WAH population. However, the industries they represent, their motivations, and their demographics are very different from those of the employee WAH population.

On a five-year basis, the WAH segment of the self-employed population grew only slightly (1.7%). When their numbers are combined with the non-self-employed WAH population, the combined growth totaled only 23%, compared to the 61% growth of WAH without the self-employed.

The recession was not as kind to WAH business owners as it was to the employee WAH population. Both the total self-employed population and the WAH portion lost ground in 2008 and 2009 (see Chart 9).

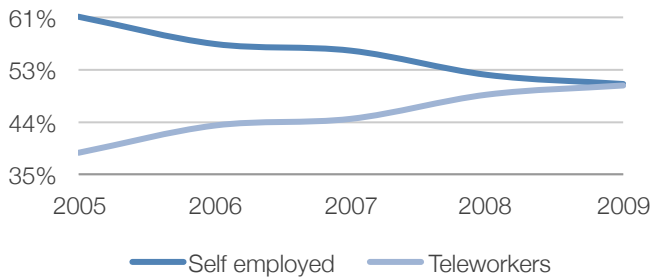
**Chart 9 - 2005-2009 Self Employed Population**  
Source: 2005 to 2009 ACS PUMS Data





Largely as a result of the increase in the employee WAH population, the self-employed share of the WAH population fell from over 60% to 50% during the past five years (see Chart 10).

**Chart 10 - Self Emp. vs Employees, WAH Trend**  
Source: 2009 ACS PUMS Data



## WHO OFFERS WAH JOBS?

Data on who offers work at home comes from two sources, the Bureau of Labor Statistics National Compensation Survey and WorldatWork.

Bureau of Labor Statistics (BLS) conducts an annual National Compensation Survey that includes questions about the benefits offered by companies.<sup>1</sup> To be counted as a benefit, it must be permanent and widely available.<sup>6</sup> The BLS count does not include ad hoc, occasional, and informal WAH programs, which WorldatWork shows to be, by far, the most common approach.

### BLS SUMMARY OF WHO OFFERS WAH

In 2010, only 5% of companies reported offering flexible workplace benefits (see Table 7, opposite). That number has changed only one percentage point since 2003 (the first year of the survey).

**Table 7 — % of Workforce Offered Flexible Workplace Benefits**

Category	2007	2010
<b>Private Companies</b>	5%	5%
<b>Company Size</b>		
100+ Employees	5%	7%
Less than 100 Employees	3%	4%
<b>Occupation</b>		
Management, Professional & Related	5%	5%
Service	3%	4%
Sales & Office	11%	13%
Natural Resources, Construction & Maint.	1%	9%
Production, Transp., and Material Moving	5%	5%
<b>Union vs. Non-Union</b>		
Union	n.a.	1%
Non-Union	n.a.	5%
<b>Blue Collar vs White Collar</b>		
Blue-Collar	2%	2%
White-Collar	5%	6%
<b>Wage Percentile</b>		
Lowest 25 Wage Percentile	n.a.	1%
Second 25 Percentile	n.a.	3%
Third 25 Percentile	n.a.	6%
Highest 25 Percentile	n.a.	12%

Source: 2010 BLS National Compensation Survey

Again, the reason for this startlingly low number likely lies in the BLS's strict guidelines for inclusion as a benefit.

Within the population of those who offer flexible workplaces, the BLS data shows (see Table 7):



- ▶ Larger companies offer flexible workplaces more than smaller ones do.
- ▶ Such arrangements are five times more common in non-union establishments, and three times more available to white-collar versus blue-collar workers.
- ▶ There is a linear relationship between the availability of flexible workplace options and wages through the third 25th percentile—the higher the wage, the more likely the availability. But the highest wage earners are twice as likely to have access to workplace flexibility than the those in the third percentile are, and 12 times more likely than those in the lowest wage group.

## WORLDATEWORK SUMMARY OF WHO OFFERS WORK AT HOME

WorldatWork's *2011 Survey on Workplace Flexibility*<sup>7</sup> offers insight into ad hoc, occasional, and informal WAH practices of its members. To answer the question about which types of flexible work arrangements members offered to some or all employees, WorldatWork found:

- ▶ 83% offered it on an ad hoc basis (to meet a repair person, care for a sick child, etc.)
- ▶ 58% offered it a least one day a month, but not full time
- ▶ 57% offered it at least one day a week, but not full time
- ▶ 37% offered it full time

### WAH Availability by Exempt vs. Non-Exempt

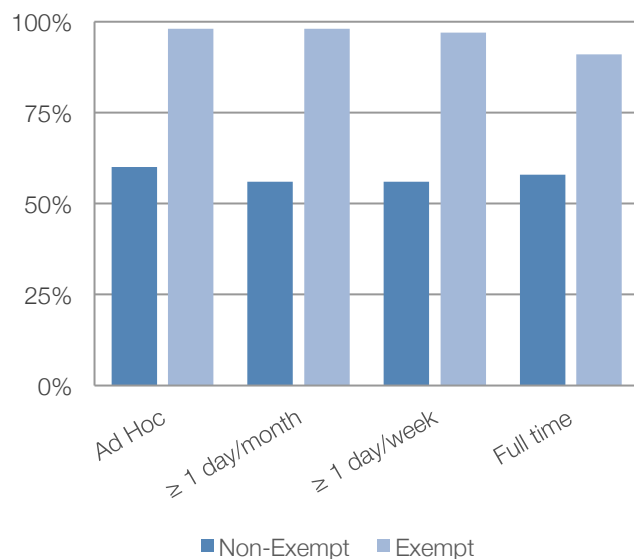
When asked if they made WAH available to all employees, the majority did not. All forms of telework were significantly more available to exempt than non-exempt employees (see Chart 11)

- ▶ 48% offered it ad hoc
- ▶ 29% offered it at least once a month
- ▶ 28% offered it at least once a week
- ▶ 16% offered it full time

### WAH Availability by Company Size

In terms of company size, those with 10,000 or more employees were significantly more likely to offer telework at

**Chart 11 - Exempt vs. NonExempt**  
Source: WorldatWork 2011 Survey of Workplace Flexibility



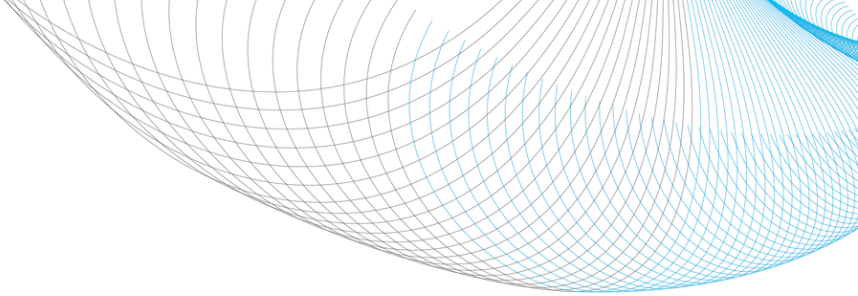
least one day a month to some or all employees than smaller companies (72-73% versus 52-62%).

Companies with less than 100 employees or those with 10,000 to 20,000 employees were nearly equal in their offering of telework once a week (63% and 64% respectively). The largest companies (those with over 20,000 employees) were the most likely to do so (77%).

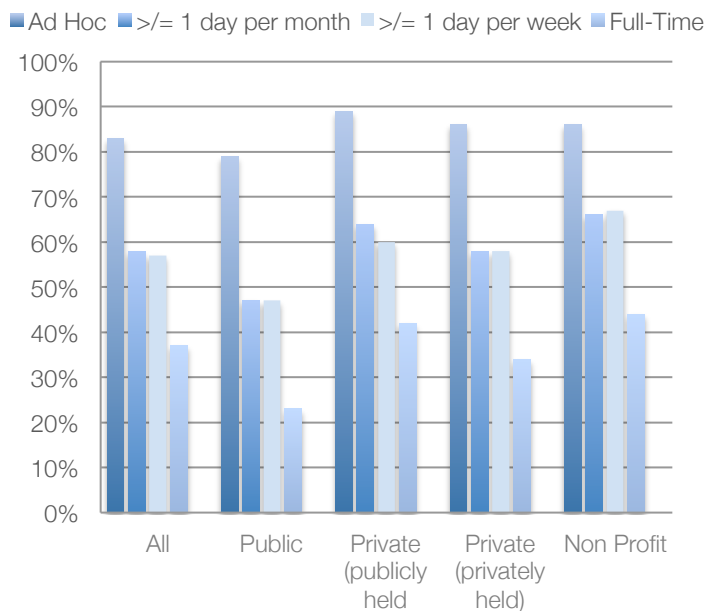
For the most part, the larger the company, the more likely they are to offer full-time telework (offered by 56% of the largest companies and 25% of the smallest).

### WAH Availability by Type of Organization

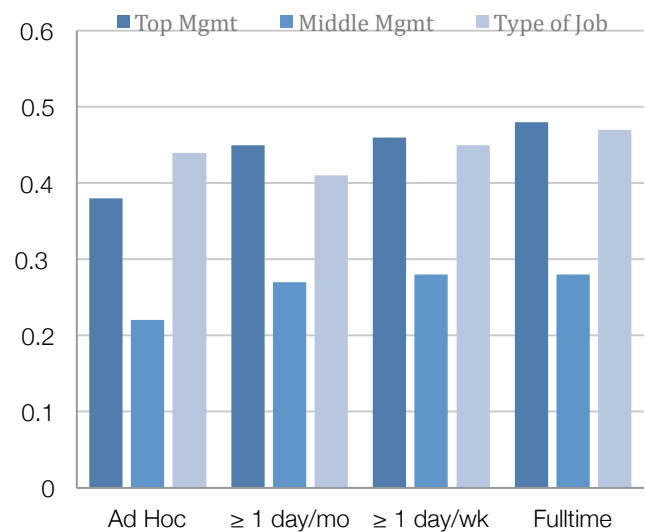
The extent to which WorldatWork's member companies offered telework to at least some employees varied by type of company, with non-profit organizations offering regular and full-time telework more than any other sector. Publicly held companies were the second most likely to offer it on a regular basis (see Chart 12).



**Chart 12 - Telwork Offerings by Type of Organization**  
 Source: 2011 WorldatWork Survey of Workplace Flexibility



**Chart 13 - Obstacles to Telework**  
 Source: 2009 WorldatWork Telework Trendlines



### WAH Availability by Industry

Full-time telework was most prevalent in finance/insurance and healthcare/social assistance industries (60% and 55% respectively). It was least available in the manufacturing industry—though still significantly offered at 24%. This challenges the commonly held theory that only service sector jobs are compatible with full-time telework. You have to look at the work itself to understand if it is compatible with WAH.

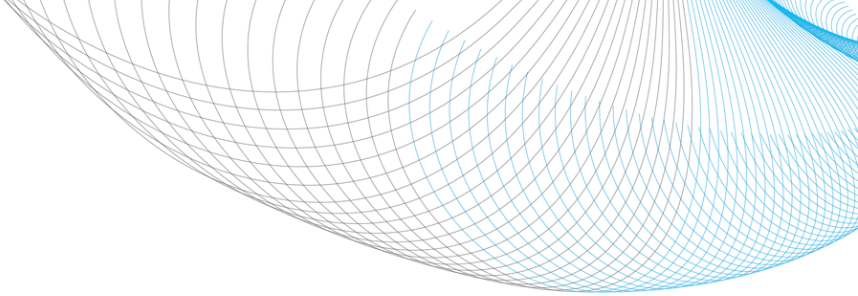
### Obstacles to Offering Work at Home

When asked to indicate the primary obstacles to telework (among those who did not offer it), management resistance was overwhelmingly cited as the most common holdback. Job incompatibility was second (see Chart 13).

This data is consistent with a wide body of research that shows that while interest in WAH (of any frequency) is very high among employees and more than half of jobs are conducive to it, management resistance remains the biggest obstacle to WAH.

## HOW OFTEN DO THEY WORK AT HOME?

BLS data showed a 28% increase in the number of employees who reported working at home (either as part of their regular workday or working after hours) from 2005 to 2009.



The average number of hours worked at home has been stable at about 2.5 hours a day since 2008 (see Table 8).

**Table 8—Employees Who Performed Work at Home**

	2005	2006	2007	2008	2009
Employees	14.1m	15.6m	15.9m	16.4m	18.0m
% Change	2.2%	10.6%	1.9%	3.1%	9.8%
% of Pop.	15.4%	16.5%	16.0%	17.0%	17.0%
Avg hrs	2.19	2.27	2.55	2.50	2.50

Source: BLS Time Use Survey  
Non-self-employed. Includes unpaid WAH.

Employees in management, professional, and related occupations worked remotely more than twice as many hours as other workers did, for a total of about 6.5 hours a week in 2007.<sup>8</sup>

While ancient in terms of how far technology has come, a 2004 special BLS supplement to the Current Population Survey showed the average number of paid WAH hours among those who have a formal WAH agreement to be equivalent to 2.4 days a week (see Table 9).<sup>9</sup>

**Table 9—2004 WAH Hours of Work**

Hours/Week	% Employees
Less than 8	21%
8 to 34	35%
35 or more	15%
<b>Average</b>	<b>18.6 hours (2.4 days)</b>

Source BLS Work at Home in 2004 special supplement

WorldatWork asked survey participants: “Thinking of your normal business hours, how frequently do you work only at home for an entire day?” In 2008, approximately 16 million answered with at least once a month. That number has increased by almost 62 percent since 2005 (see Table 10).

**Table 10 5 Yr Growth of WAH at least once a month**

2005	2010	5 Year Increase
9.9 million	16 Million	61.6%

Source: WorldatWork surveys 2005 to 2009

WorldatWork also found that teleworkers were doing so more frequently in 2010 than in 2008. Those who reported they teleworked almost every day grew from 40 to 45 percent. And those who did do at least once a week, increased from 32 percent to 39 percent. At the same time, teleworkers reporting they worked from home once a month declined from 28% to 16%.<sup>10</sup> This shift may indicate that occasional telework is proving itself effective and reducing fears to the point that more frequent participation is accepted. Alternatively, it might indicate that the fringe teleworkers went back to the office during the recession while the more frequent participants—those who’d proven the savings potential, expanded their telework days.

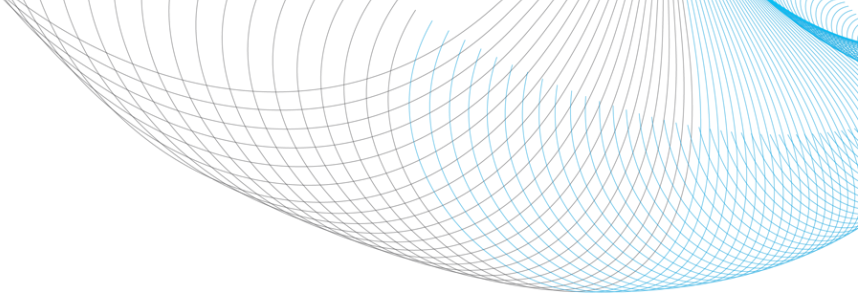
## WHERE DO THEY WORK?

In 2007, BLS compiled a special tabulation about where people worked. It showed that about 7.5% of work was performed at home and 2.9% was performed in other places. Again, those in managerial, professional, and related occupations did more at home (12.8%) and other places (3.5%) than other employees in other occupations.<sup>11</sup>

The latest BLS data does not include other places of work, but it does show a decrease in work conducted at an office from 90% in 2007 (a number that had changed little since 2003) to 87% in 2009.<sup>12</sup>

The second most common work location was home. On days they worked, nearly one in five employed people spent at least some time working at home (again, this includes a mix of paid and unpaid work).

Only about 3% of all work hours were performed at other locations, such as a restaurant, someone else’s home, or outside.



WorldatWork found similar numbers. They asked participants: “Indicate whether you have ever conducted work-related activities at any of the following types of locations over the past month.” Home was, by far, the most cited non-traditional place of work (63%).<sup>13</sup> The second most frequently cited location was in the car (40%). Other favored ad hoc offices included automobiles, eateries, and hotels (see Chart 14).

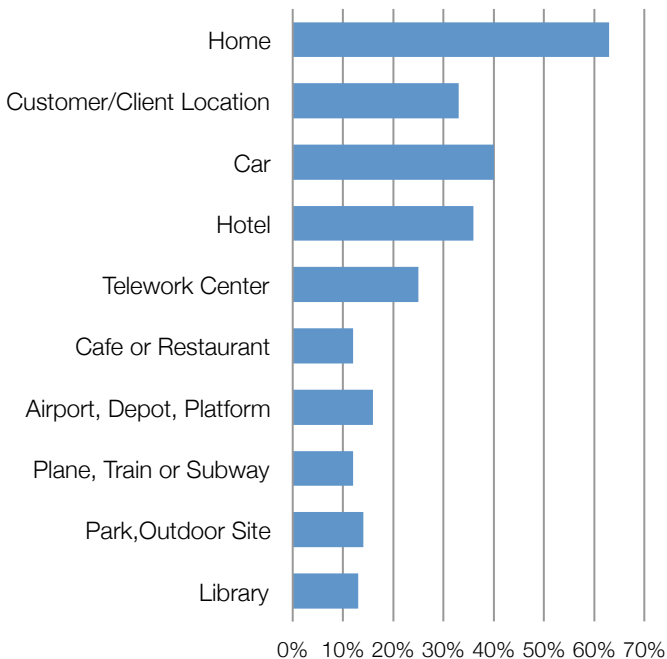
## WHO WANTS TO WORK AT HOME?

While the question was not repeated in 2011, WorldatWork’s 2009 *Telework Trendlines* showed that 50% of

non-telecommuters rated the chance to WAH as four or five on a scale where five meant they were very interested in working from home. Only 21% said they would not be interested at all. Thirty-seven percent said they’d take a small pay cut in exchange for being able to work at home two days a week.<sup>14</sup>

There are also some groups of people for whom being able to telework is more critical. These include the disabled, those with eldercare responsibilities (a rapidly growing group), military families, and rural workers.

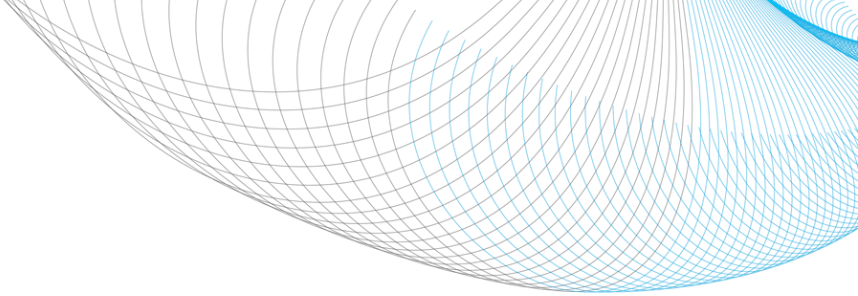
Chart 14 — Remote Work By Location  
Source: WorldatWork Telework 2011



## WHO COULD WORK AT HOME?

Insight into this question of who could work at home can be gleaned from a number of studies:





1) The WorldatWork 2011 *Survey on Workplace Flexibility* suggested that employers felt that between 41% and 47% of jobs were compatible with WAH.<sup>15</sup>

2) WorldatWork's 2009 *Telework Trendlines* shows that the 38% of those who did not telecommute felt they had job-related tasks that could be done at home. Respondents most commonly answered that they felt they could do up to 40% of their job at home, though almost a quarter felt they could do 80% or more remotely.<sup>16</sup>

3) In 2005, researchers Matthews and Williams (M&W) estimated the potential WAH population at 40% of the workforce (based on 2002 BLS totals).<sup>17</sup> They did so by determining which U.S. jobs were telework compatible, which they defined as:

- ▶ Having an information component
- ▶ Being individual vs. group work
- ▶ Having clear parameters for evaluation
- ▶ Not requiring personal contact with customers
- ▶ Not requiring physical work that could only be done on site

On this basis, they included professional specialty, technical support, administrative support, and half of sales jobs (assuming that half were non-retail). They excluded management positions altogether, assuming (incorrectly) that "managers would not be teleworking in the near future."

We repeated Matthews and Williams approach using 2010 Labor Force numbers with the following modifications:

- ▶ We included a small portion of the populations where there were already people working at home in occupational categories that were not included in M&W's estimate. For service and production/transportation occupations, we assumed 5% compatibility. For construction and maintenance, we assumed 10%.
- ▶ For the government workforce, we assumed 61% of jobs were compatible based on the Department of Labor's 2009 *Report to Congress*.
- ▶ For management jobs, we assumed 50% compatibility.

The result of our analysis shows that about 63 million U.S. employees hold jobs that could be done at home at least part of the time (45% of the workforce).

Taken together with the conclusions about who wants to work at home, we arrive at a total of about 50 million people as a theoretical maximum for WAH (see Table 11 and Chart 16). That accounts for 36% of the total workforce or 40% of the non-self-employed workforce.

**Table 11 – Breakdown of 63 Million Who Could WAH**

	#	% could WAH
Could, wants to, but doesn't	30.4 M	49%
WAH 1-5 days/month	16.0 M	25%
WAH 3-5 days/week	2.9 M	5%
Doesn't want to	13.4 M	21%

Sources: Telework Research Network, WorldatWork 2011 Telework Survey, 2009 American Community Survey

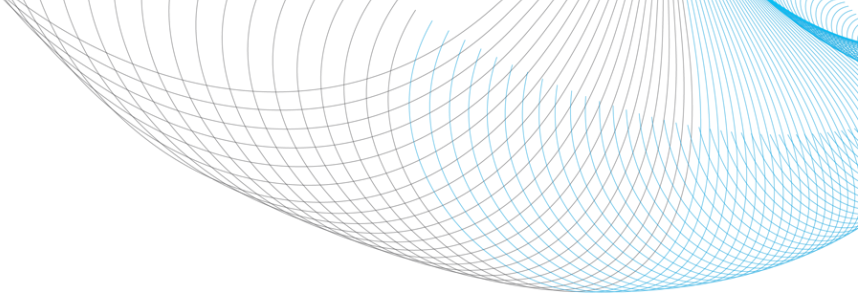
## PROJECTED GROWTH

Over the years, many experts have put forth their predictions for growth of telework.

In 2005, Gartner Dataquest predicted that by 2008 thirty-six million U.S. employees would telework at least once a month (27% of the worker population) and 13 million would work from home at least once a week (10% of the population).<sup>19</sup>

In 2009, Forrester Research reported, "more than 34 million U.S. adults telecommuted at least occasionally." They added:

*"Fueled by broadband adoption, better collaboration tools, and growing management experience, the U.S. telecommuting ranks will swell to 63 million by 2016. Those 29 million new telecommuters lined up five abreast would*



*stretch from New York to LA! Leading the surge are occasional telecommuters and regular telecommuters who work from home between one and four days a week. The impact of this expanding remote workforce is far-reaching: It will force firms to expand their digital footprints, harness new social software, crisply define their culture, and examine their real estate and energy policies.”<sup>20</sup>*

In February of 2011, *Fortune Magazine* reported that 82% of companies that made its annual “100 Best Companies to Work For” list allow employees to telecommute or work at home at least 20% of the time.<sup>21</sup>

There is no doubt that remote work will continue to grow. And there’s no doubt that it will soon begin to grow more quickly as a result of a number of factors, including:

- ▶ Ever improving communications and collaboration technologies
- ▶ Increased high-speed broadband penetration
- ▶ The proliferation of web-based applications
- ▶ A return of labor and talent shortages that were of key concern prior to the recession
- ▶ The needs and wants of an increasingly tech-savvy labor force
- ▶ The desire for flexible work among retiring Baby Boomers
- ▶ Record-low levels of employee engagement
- ▶ Workforce burnout—a factor that was already a problem before the recession, but even more so now as a result of it
- ▶ The increasing pressure on working adults to care for aging parents
- ▶ Increasing sophistication about how to manage and work with distributed workers and groups of workers.
- ▶ The declining numbers of Baby Boom managers who are not comfortable with WAH workers as they head off into retirement.
- ▶ Continued pressures on companies for indirect costs of office space including real estate, design, management, and operations.
- ▶ Escalating fuel prices and continued unrest in the Middle East

- ▶ Increasing pressure on companies to reduce their carbon footprint, including the likelihood of financial sanctions
- ▶ Continued emphasis on cost containment and bottom line performance
- ▶ The growing recognition of flexibility as a corporate strategy, not just an HR tactic
- ▶ Continual reminders of WAH as a continuity of operations strategy
- ▶ Growing concerns about our underfunded and under-maintained transportation infrastructure
- ▶ Federal budget pressures and government mandates for the federal workforce including the Telework Act and others on sustainability, continuity of operations, technology replacement cycles, real estate management, cloud computing and others.

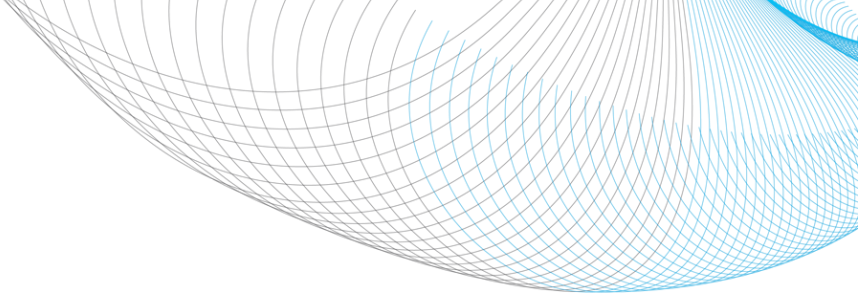
The question remains: how quickly will remote work grow?

Clearly, ad hoc and occasional WAH will lead the way. More than 16 million people already work remotely at least once a month. Based on the historical growth rate reported by WorldatWork (roughly 12% per year), without any acceleration, that number will reach the theoretical maximum of 50 million people by 2018.

If we similarly project the regular WAH population growth, account for projected changes in the labor force, and assume it continues to grow at its historical growth rate, the regular WAH population would total 4.9 million by 2016, a 69% increase over its current level—but still a very small portion of the workforce and well below the forecasts of others.

## CONCLUSIONS

While we acknowledge the barriers to widespread telework, it’s an interesting exercise to project what it would mean if the 50 million potential telecommuters in the U.S. worked from home on a regular basis (half time). Based on our Telework Savings Calculator™, the collective company, community, and individual savings would total over



\$900 billion a year. The financial and non-financial benefits would include:

### **BUSINESSES WOULD:**<sup>22</sup>

- ▶ Save over \$13,000 per person
- ▶ Increase productivity by over \$466 billion—6 million man-years
- ▶ Save \$170 billion in real estate and related costs (assuming a 20% reduction)
- ▶ Save \$28 billion in absenteeism (25% reduction) and turnover (10% reduction)
- ▶ Improve continuity of operations
- ▶ Avoid environmental sanctions, city access fees, etc.
- ▶ Reduce their energy costs and carbon footprint
- ▶ Improve work-life balance and better address the needs of families, parents, and senior caregivers
- ▶ Avoid the ‘brain drain’ effect of retiring Boomers by allowing them to work flexibly
- ▶ Be able to recruit and retain the best people

### **INDIVIDUALS WOULD:**<sup>23</sup>

- ▶ Achieve a better work-life balance
- ▶ Recoup almost a week of free time per year—time they’d have otherwise spent commuting
- ▶ Save \$2,000-\$6,700/year, not including daycare and eldercare costs or reduced car insurance premiums
- ▶ Suffer fewer illnesses

### **THE NATION WOULD:**<sup>24</sup>

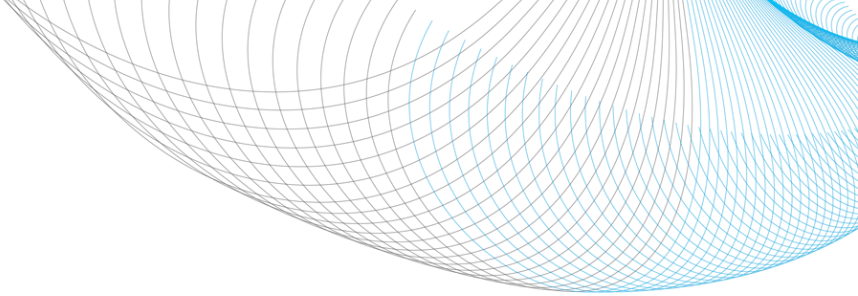
- ▶ Save 281 million barrels of oil a year (\$28 billion/year at \$100/barrel)—the equivalent of 46% of our Persian Gulf imports
- ▶ Reduce greenhouse gases by 51 million tons/year—the equivalent of the entire New York state workforce off the roads

- ▶ Reduce road travel by 91 billion miles/year thereby reducing the strain on our crumbling transportation infrastructure
- ▶ Reduce road congestion and increase the productivity for non-telecommuters
- ▶ Save 77,000 people from traffic-related injury or death
- ▶ Improve emergency responsiveness
- ▶ Reduce pollution from road work and new office construction
- ▶ Reduce the offshoring of jobs and homeshore some that have already been lost
- ▶ Provide fuller employment opportunities for special populations include rural workers, the disabled, and military families
- ▶ Reduce the economic and political vulnerability that stems from our dependence on foreign oil
- ▶ Reduce terrorism targets of opportunity

More than a dozen state and federal legislative initiatives aimed at encouraging telework have been introduced in the past three years. Many have been enacted. Federal transportation monies already fund a handful of state and local advocacy programs. While this is encouraging, unless a coordinated approach to telework is taken, well-intended initiatives risk duplication of effort and cost. Moreover, without a good understanding of who is already teleworking, it will be impossible to measure the success or return on investment of new programs.

### **THE FEDERAL GOVERNMENT SHOULD:**

- ▶ Develop cross-agency initiatives to foster state and local telework advocacy programs. DOE, EPA, DOT, DOL, SBA, VA, CDC, the Council on Disability, NSA, DOI, DOD, and even SSA all have something to gain from telework.
- ▶ Specifically include telework as a valid transportation demand management and pollution reduction strategy in the nation’s transportation and energy policies.
- ▶ Collect data from those state and local advocacy programs that have already proven successful. TeleworkVA, for example, has a program that offers cash incentives to



companies that allow their people to work from home. Other successful models are offered by the federal government's own telework programs, The Telework Exchange, TelecommuteConnecticut, Commuter Challenge in Seattle, 36 Commuting Solutions in Denver, M-ATAC in Washington DC, TelCoa, WORKShiftCalgary, the Sloan Work and Family Network, and dozens of private practitioners. Sharing information about what has already been tried and what has worked can save substantial expense.

- ▶ Agree on a universally accepted method of verifying and measuring telework participation. This is particularly important as public monies are used to fund programs and as city access fees, commuter taxes, carbon reporting, and environmental sanctions become realities.
- ▶ Provide funding for the implementation of the Telework Enhancement Act of 2010. Passed with bipartisan support, this legislation is intended to increase telework participation within federal agencies, but as no funding was associated with the bill, many agencies are finding it impossible to comply.
- ▶ Establish a public-private partnership within SBA to help small private sector companies evaluate and implement telework.
- ▶ Encourage states and local governments to support telework for their own employees and to encourage private sector adoption. Progress toward telework goals should be included in agency head and managers performance evaluations. Best practices and vendor assessments should be openly shared between government agencies to avoid duplication of effort and ensure that poor performing vendors are not hired elsewhere (think Yelp for government). Essential telework fundamentals such as IT and organizational readiness assessments and telework training (for agency leaders, managers, employees). should be required for all programs using federal funds to ensure that programs are not set up for failure. Pre- and post-telework metrics should be captured to accurately evaluate program success.
- ▶ Include questions in future American Community Surveys that allow researchers to easily distinguish home-based employees, home-businesses, volunteers, and unpaid family workers across all variables. In addition, questions should be added to account for mobile employees and to

determine where and how often each class of worker is working remotely.

- ▶ Make ubiquitous high-speed broadband access a priority. Without uniform access, telework will not be available to those who need it the most.
- ▶ Require that state and local taxing authorities abolish policies that double-tax home-based workers. New York's 'telecommuter tax' may explain why the NY metro region's telework participation rate is so low.
- ▶ Offer partial home office tax credits for people who work from home part time and allow WAH employees to deduct their home office equipment costs.
- ▶ Offer Small Business Innovation Grants (SBIR) to inspire technology that supports telework.
- ▶ Encourage the relaxation of local zoning laws that prohibit home-based work.
- ▶ Evaluate OSHA, Fair Labor Standards, ERISA, and other employer regulations that impact remote work.

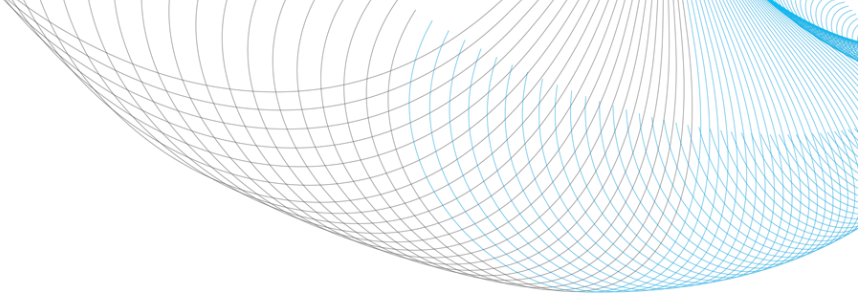
## DISCUSSION

### WHY DO SOME METRO AREAS HAVE HIGHER CONCENTRATIONS OF TELEWORKERS THAN OTHERS?

We expected to find a positive correlation between areas with the worst congestion or those with the highest levels of 'extreme commutes' and high levels of telework, but didn't find such a relationship. We expected to find a correlation in places where there are telework incentives, but we didn't.

What we see most in the data are places with large populations of information workers—Detroit is at the bottom of the list for example. But there are many factors that might encourage or discourage telework. For example, a long period of highway maintenance in San Diego, coupled with a relatively limited public transportation system may have led to its work at home growth. And while New York is infamous for its traffic jams, its "telecommuter tax" (essen-





tially double taxation of telecommuters) most likely discourages participation.

The fastest growth areas may be a result of slow starters, an example of the "brilliant recovery from a piss poor start" effect. It's easier to achieve a large percentage increase in a small space than it is a large one.

## **WHAT CAUSED THE SURGE IN FEDERAL WORKERS TELECOMMUTING? IT'S OBVIOUSLY TOO EARLY FOR IT TO BE THE TELEWORK ENHANCEMENT ACT.**

The huge growth (+400%) all came between 2005 and 2006. Until recently, continuity of operations was the primary driver of Federal telework. In 2005 both the Oklahoma City bombing and Hurricane Katrina were wake-up calls. In addition, in part because of Katrina—but also as a result of increased demand, fuel prices had been steadily rising. They crossed the \$3/gallon barrier in late 2005, and some people said, "Enough!" Oddly, the \$4/gallon barrier does not seem to have the same impact.

Here's the federal government's own take on the 2006 growth in telework among federal workers:<sup>25</sup>

"In the wake of the devastation caused by Hurricane Katrina, we have seen the importance of telework in responding flexibly to emergency situations— in this case, by providing a tool to help alleviate the issues caused by steeply rising fuel prices nationwide. Additionally, Congress showed its continuing interest in telework in the Federal Government through the enactment of Public Law 108-447 in December of 2004, encouraging increased telework participation in certain agencies."

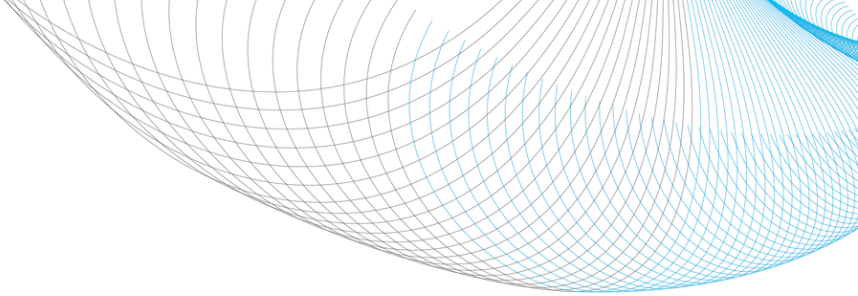
## **WHY IS YOUR FORECAST FOR THE GROWTH OF TELEWORK SO MUCH MORE CONSERVATIVE THAN THOSE OF OTHERS**

Having worked with a number of companies and government agencies in the early stages of their telework pro-

grams, it's clear that the majority is not ready to make the organizational culture shift that's required to manage a remote workforce. The issue of mistrust—'how do I know they're working', is huge and not easily overcome. Management attitudes that were born in the days of sweatshops and typing pools still dominate. And even in those rare organizations where senior management unambiguously supports the concept, lack of middle management buy-in is the stumbling block.

Oddly, the fact that the majority of information industry employees are not at their desk most of the time, is something most companies don't want to acknowledge. The tools, training, and technologies that are needed to support telework, are really just a catch-up on how employees are working already.

While looming labor shortages, increased pressure from value chain partners and others to engage in sustainable practices, rising fuel prices, budget pressures and a variety of other factors will continue to make telework attractive, the cultural barriers will not be quickly overcome.



## ABOUT

### TELEWORK RESEARCH NETWORK

The Telework Research Network is a consulting and research firm based in San Diego, California that specializes in evaluating the business case for telework and other workplace flexibility strategies. They've built telework savings models for the US, UK, Canada, and the US federal workforce. Hundreds of company and government leaders have used their proprietary Telework Savings Calculator™ to evaluate the ROI of alternative workplace strategies.

The Telework Research Network's researchers have synthesized over 500 studies on telework and related topics. They've interviewed the nation's largest and smallest telework employers and their employees, the telework advocates and naysayers, top researchers, leaders of successful telework advocacy programs, and venture capitalists who have invested in the remote work model. Their research has been quoted in *Harvard Business Review*, *The Wall Street Journal*, and scores of other publications.

The Telework Research Network staff is available for consulting and research projects, custom telework and flexible work modeling for companies and communities, branded savings calculators, writing, and speaking.

Their research is conducted independently and made possible by their sponsors. Related white papers include:

[Telecommuting: The Bottom Line Impact](#)

[Performance Based Management](#)

[The Shifting Nature of Work in the U.K.](#)

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### NEW WAYS OF WORKING

New Ways of Working (NewWOW) is a membership organization of thought leaders from companies and academia exploring new ways of working such as distributed work, environmental sustainability and work, cross-cultural work, innovation, and productivity.

New WOW takes an integrated approach to workplace change, combining corporate real estate, human resources, and information technology. Members are an intriguing mix of experts from the fields of workspace design, technology and real estate/facilities. [www.newwow.net](http://www.newwow.net)



# Endnotes

- 1 Telework 2011—A WorldatWork Special Report, based on data from The Dieringer Research Group, Inc telephone survey of 1,002 randomly selected U.S. adults conducted between Oct. 20, 2010, and Nov. 2, 2010
- 2 Survey on Workplace Flexibility, WorldatWork, February 2011. 5,191 members surveyed with 537 valid responses.
- 3 2010 Status of Telework in the Federal Government, U.S. Office of Personnel Management.
- 4 2010 Status of Telework in the Federal Government, U.S. Office of Personnel Management.
- 5 Bureau of Labor Statistics, 2007 and 2010 Annual Benefits Survey. 2010 included a sample of approximately 18,000 firms with 10,000 responding.
- 6 A 3-8-11 email from Natalie Kramer, Economist in the Office of Compensation and Working Conditions, National Compensation Survey Bureau of Labor Statistics offers this explanation of whether the flexible workplace benefit should be counted:

*"This benefit is also known as flexiplace or telecommuting. It allows employees who traditionally work at the establishment to regularly work an agreed-upon portion of their work schedule at home or other approved location. Excludes temporary arrangements.*

*1) An employee with a chronic back problem for years expects no improvement. Arrangements are made for him to work at home 2 days a week indefinitely. If this arrangement is personalized for a specific individual, and other employees would not expect the same treatment under similar circumstances, the plan would be out of scope.*

*2) An employee's work involves review of documents on the computer and email with clients to resolve issues. Work can be done away from the office as long as the employee has computer access. The employee has production quotas to meet each day. The company allows the employee to work from home one day per week as long as the quotas are maintained. This is an in-scope arrangement because other than failing to maintain a quota, there is no indication that the arrangement is temporary.*

*3) Another employee breaks a leg and cannot drive for 3 months. His company allows him to telecommute from home during the recuperation, with the understanding that the telecommunicating would end after 3 months. This is an out-of-scope flexible workplace arrangement because of the specified three month limitation.*

*Note: Arrangements that are expected to continue indefinitely are usually in scope; those set up for a special project are out of scope."*

- 7 Survey on Workplace Flexibility, WorldatWork, February 2011.
- 8 Where People Worked, 2003 to 2007, US DOL BLS, Issues in Labor Statistics, June 2009. Based on a special tabulation of American Time Use Survey data.

- 9 Work at Home Summary, BLS Economic News Release USDL 05-1768, 2005.
- 10 Telework 2011—A WorldatWork Special Report
- 11 Where People Worked, 2003 to 2007, US DOL BLS, Issues in Labor Statistics, June 2009. Based on a special tabulation of American Time Use Survey data.
- 12 BLS 2010 ATUS Economic News Release, Table 7.
- 13 WorldatWork Telework Trendlines 2009, data from The Dieringer Research Group, Inc. Note: Because this data is for those who self reported as telecommuters only rather than all U.S. adults, the margin of error for telecommuter data is +/- 8.6 percent.
- 14 WorldatWork Telework Trendlines 2009
- 15 WorldatWork, 2011 Survey on Workplace Flexibility
- 16 WorldatWork Telework Trendlines 2009
- 17 Telework Adoption and Energy Use in Building and Transport Sectors in the United States and Japan, Matthews and Williams, Journal of Infrastructure Systems ASCE, 2005.
- 18 Status of Telework in the Federal Government—Report to Congress, US Department of Labor, 2009.
- 19 Teleworking: The Quiet Revolution, Gartner Dataquest, 2005.
- 20 US Telecommuting Forecast, 2009 to 2016, Forrester Research, March 11, 2009.
- 21 100 Best Companies to Work For, Fortune, 2011.
- 22 Calculated by the Telework Research Network's proprietary Telework Savings Calculator™ and assuming: 25% reduction in real estate costs at \$43/sf, 1.5 day a year reduction in absenteeism, 10% reduction in turnover, and 25% increase in productivity (at an average salary of \$41,605, the weighted average of the jobs included in the projection - based on 2009 ACS)
- 23 Calculated by the Telework Research Network's proprietary Telework Savings Calculator and assuming IRS standard mileage reimbursement for auto costs (not including gas), \$3.80/gallon for gas, and food and clothing costs based on BLS data (net of extra home costs for food and net of extra home electricity for home office use).
- 24 Calculated by the Telework Research Network's proprietary Telework Savings Calculator and assuming 75% reduction in telecommuter driving on telework days for those 82% of employees who formerly drove to work solo, oil at \$100/barrel, 20.3 average mpg, US DOT accident metrics, and EPA pollution metrics.
- 25 2006 Status of Telework in the Federal Government - Report to Congress (reporting on 2005)

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