

Project STRIDE

Strategic Telework Research in Disability Employment Final
Report

Developing and Implementing Strategies for Employing
Teleworkers with Disabilities



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Funded under a grant/contract supported by the Office of Disability Employment Policy of the U. S. Department of Labor, grant/contract #E-9-4-*-*~***. The opinions contained in this publication are those of the grantee/contractor and do not necessarily reflect those of the U. S. Department of Labor.

Keywords: Telework, telecommuting, benefits, barriers, disabilities, employment

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I. PROJECT BACKGROUND

Purpose and Rationale

Technology is changing today's workplace, providing ease of access to information and instantaneous world-wide communication. With the expansion of high-speed broadband technologies over the last several years, employees now have the ability to work seamlessly away from the traditional office setting in the form of telework. In 1991, about 4 million American workers reported teleworking at least once per week, and by 2006, that number increased to over 21 million¹. As this trend continues, telework could provide an extremely viable opportunity for people with disabilities to work.

The potential benefits of telework for individuals with disabilities and for their employers have been heralded in the United States² as well as in Europe³, yet the number of teleworkers with disabilities is thought to be relatively small⁴. However, the practice is gaining in popularity as federal and state agencies search for return-to-work strategies to lower the cost of workers' compensation, which is estimated at more than \$2 billion and 2 million lost production days annually⁵.

Research has demonstrated a positive indication of employer receptivity to hiring teleworkers with disabilities. For example, a former study by Dr. Jarrett (co-investigator for STRIDE) found that 47 percent of employers would consider telework for new employees with a disability. Another 19 percent would "possibly" hire a new teleworker with a disability. Overall, 62 percent of employers with telework employees said they would recommend hiring new employees with a disability and allow them to telework immediately⁶.

Despite those positive perceptions, there is a surprising lack of any national research on teleworkers with disabilities. In addition, many factors complicate our understanding of current research in the field:

1. Telework can have a wide variety of definitions. It takes place in varying locations, can vary in frequency, and there is a large variety of technology support and supervision needed for different telework jobs.
2. Little distinction exists between the conditions and job supports needed by teleworkers with disabilities as compared to teleworkers in general.
3. Limited scientific research has been conducted about both the job environments and strategies that encourage managers to hire new individuals with disabilities to telework.
4. Research has been conducted from either the employer or teleworker perspectives, not the combined factors needed to increase use of telework as an option for persons with disabilities.

1 International Telework Association and Council (ITAC)

2 Hesse, 1996; Jarrett & ILRU, 1996

3 Haddon, 1991; Murray & Kenny, 1990

4 Eaton, *High Tech Careers*, August 1998

5 Cost of federal workplace injuries when measured by workers' compensation losses

6 *Questions and Answers about Telecommuting for Persons with Disabilities: A Guide for Employers*, The Institute for Rehabilitation and Research, Houston, Texas. April 1996.

Much remains unknown about telework and whether it will become a major opportunity for employment accommodations, or merely another workplace option utilized by a handful of employees. Project STRIDE is designed to implement new national research, validated on a regional and local level, to determine how well telework will answer the needs of workers with disabilities.

Project Goals

Project STRIDE was designed to identify: 1) the circumstances and practices in which telework is most successful; and 2) the barriers that prevent more widespread use of telework for employees with disabilities while also providing quantitative data for employment for persons with disabilities. In order to achieve this, the project was conducted in two phases.

Project Objectives

In Project STRIDE's first phase, a national questionnaire was carried out with the intent to:

- Gather information on supporting conditions and strategies to effectively implement telework in for-profit, public and non-profit organizations
- Identify types of jobs and industries for: 1) existing employees with disabilities who transition into telework; and 2) teleworkers with disabilities who are newly hired into telework functions
- Address employer success factors, barriers and job environments, which would promote the practices of hiring new employees with disabilities into telework

In the second phase, two demonstration sites were created in Minnesota and Wisconsin with the objectives to:

- Articulate elements of the national questionnaire in the context of effective and innovative strategies by assisting veterans and/or workers compensation beneficiaries to obtain telework jobs in, government, nonprofit and/or private sectors.
- Conduct research to ensure methods and results can be verified, transferred and repeated.

II. MAJOR PROJECT TASKS

Pre- and Full National Survey – Year One

The national employer questionnaire was carried out in two stages beginning with a pre-questionnaire and followed by a full questionnaire, completed between May 21 and September 30, 2005. Of most interest were employers who had experience working with teleworkers, especially teleworkers with disabilities, as they would have more in-depth expertise on best practices for implementation.

This study distributed an 8-item pre-questionnaire concerning telework practices to 15,782 human resource professionals and managers from small and large businesses, federal, state, county and city governments, universities, hospitals and non-profit agencies. The research sample was not intended to be representative of all U.S. employers. It was used instead to qualify potential employer respondents for the full questionnaire. Respondent employers to the pre-questionnaire that either employed persons with disabilities or employed teleworkers were then asked to consider responding to the full questionnaire.

Of the 463 employers that qualified to proceed to the second phase of the study, 232 completed the “full” questionnaire (97 percent completed it electronically, with the remainder using a paper version). Of the 232 employers, 47.9 percent had employed teleworkers with disabilities, including 10 percent that hired staff with disabilities directly into telework jobs.

Demonstration Sites – Years Two and Three

Two demonstration sites were created through a joint effort among the Midwest Institute for Telecommuting Education, the Humphrey Institute, the Minnesota Resource Center (MRC) and the Stout Vocational Rehabilitation Institute at the University of Wisconsin-Stout. The overall goal was to benefit unemployed populations, with disabilities by providing them with more opportunities to participate in the labor force. Our participants included veterans, workers compensation candidates and those on social security disability income.

To realize the benefits, individuals with disabilities were the main subjects of STRIDE’s ongoing research. Subjects had physical, mental, and emotional disabilities. We included all persons with disabilities who were eligible to fulfill specified job requirements..

To evaluate the efforts, a series of surveys, focus groups, and interviews was conducted. Questions in each format covered expectations of telework, productivity, job satisfaction, job supports, job loyalty and barriers, (See Appendix A).

Surveys were administered to the treatment group at program start, at placement, and six months after placement. Randomly selected participants took part in interviews just before or after placement. Their supervisors were also asked to fill out a survey at placement, 6 months after placement, and when the project ended. If a participant was not placed or dropped out of the training, exit interviews were administered. Information from the control group was captured through a group interview session that included workers who are teleworkers in similar jobs.

Case Studies

Seven case studies involving teleworking by persons with disabilities was prepared to obtain qualitative information that would illustrate the organizational dynamics of teleworking for individual employees and employers and to illustrate that despite challenges, both employers and employees have benefited from teleworking by people with disabilities.

The majority of employers were drawn from the national survey conducted by STRIDE in 2005. Several additional employers were selected by project staff based upon public information obtained during the project period or by contacting employers known to have teleworkers with disabilities.

Once an employer had agreed to participate, research staff interviewed teleworkers with disabilities, an organizational representative with responsibility for telework, and frequently supervisors of teleworkers. Interviews were conducted by telephone and via written survey instruments that were clarified by follow-up telephone conversations, when needed. Separate sets of questions were prepared for teleworkers, supervisors, and organizational representatives,

The case studies were prepared with a strong emphasis on their educational value for other employers. Therefore, the cases were prepared to assist employers in understanding the appropriate conditions under which telework will be beneficial for both employers and persons with disabilities. To ensure that the case descriptions would be read by professional human resource staffs, business owners, and people with disabilities, all but two of the cases were limited to a maximum of 10 pages in length. Cases were prepared at various times during calendar years 2006 and 2007.

III. DEFINITIONS

The following definitions were provided to our employer respondent populations.

- *Telework*: To work at home or at a remote location during normal hours or shift, anywhere from one to five days per week, excluding occasional or after hours telework, sales forces and mobile workers.
- *Teleworker*: An employee or contractor of a company/organization who works at home or at a remote location during “normal hours or shift”, anywhere from one to five days per week. This definition excludes the following: occasional or after-hours telework, sales forces and mobile workers.
- *Employee with a Disability*: A person who has a permanent or chronic physical, mental health or sensory condition that poses a barrier to employment.
- *Teleworker with a Disability*: either an employee with a disability who has transitioned into telework from an existing in-house job; or an individual with a disability who has been newly hired to perform telework, with no prior work experience with that organization.

IV. NATIONAL TELEWORK EMPLOYER SURVEY

The national employer questionnaire focused on employer telework practices for three distinct populations: 1) overall employee base; 2) current employees with

disabilities who have transitioned into telework; and 3) newly hired teleworkers with disabilities.

Employer Telework Practices for the General Employee Population

In the pre-and full questionnaire, the majority of respondents were from the public sector. Approximately 60 percent were federal, state and local government agencies, although public sector employees comprised only about 15 percent of the total U.S. workforce⁷.

Table 1

Employer Sector Representation		
<u>Sectors</u>	<u>Response percent</u>	<u>Response #</u>
Federal government	40	91
For-profit	20	44
State government	13	29
Non-profit	11	27
Local government	8	23
Universities	4	11
Other	4	10
TOTAL	100	235

Industry

Federal, state, and local government agencies comprised 60 percent of the sample, but only 54 percent of these selected “government agency” as their employer industry. While some respondents could have chosen “government” as their employer sector, they instead selected more specific industry types such as education, communication, data processing / information technology, human services, and research within the government sector. On the other hand, some employer respondents selected both, leading to the greater than 100 percent response in Table 3.

Non-public industries were represented more equally, with five to seven percent for each of the following categories: technology, education, financial services, health care, and management consulting. This response indicates that some telework tasks are dispersed among a variety of industries.

⁷ This difference was probably due to a combination of factors. First, it was necessary to differentiate between workforce (employees) and agencies. Government agencies on average tended to have more employees than for-profit sector firms. Second, the research staff’s prior experience was that survey response rates from for-profit firms tended to be significantly lower than that from government agencies.

Table 2

Percent of Telework Employer Respondents by Industry	
Industry	Percent of Respondents
Government agency	54
Technology	8
Education	8
Financial Services	7
Health Care	7
Management Consulting	6
Human Services	5
Communication	4
Research	4
Custodial, Janitorial and Business Management; Construction; Hospitality; Industrial; Retail Sales; Transportation	1 each
Child care; Service and Repairs; Data Processing and Information; Temporary Services; Leasing; Wholesale	0
Other	7
Total	118

Workforce Size

The employee workforce sizes for all respondents, not necessarily those who have employees with disabilities that telework, were as follows:

<u>Workforce Size</u>	<u>Percent</u>
100-499 employees	26
20 or fewer employees	20
1,000-9,999 employees	19
10,000 or more employees	15
21-99 employees	12
500-999 employees	8

Job Tasks

- The number of customer service telework tasks was reported higher in the private sector than in the government sector.

Table 3

Teleworker Job Function by Sector				
Job Functions	Government (136 respondents)		For-profit (78 respondents)	
	#	%	#	%
Office tasks	39	29	28	36
Research and Analysis	39	29	18	23
Administrative	37	27	19	24
Customer Service	19	14	21	27
Technician, non-Supervisor	28	21	16	21
Programming	22	16	14	18
Claims review	17	13	4	5
Call Centers	5	4	5	6.4
Medical Transcription	5	4	4	5
Dispatch	2	1	2	3

- Across industries, office functions were the most prevalent telework job task while the for-profit sector had the largest total number of general telework employees in data processing and information technology.

Employer Rationales

Of all employers across all industries, ADA compliance was not reported as one of the top three reasons for starting telework in organizations. Although for organizations that had implemented telework, 59 percent listed compliance with the ADA compliance as a major benefit.

The majority of employers (73%) indicated telework helped them respond to specific employee needs. Employee retention and increased productivity rated second and third, with other respondents identifying cost savings and reduced operations costs. These rationales were not necessarily exclusive of each other. For example, as employers responded to specific employee needs by providing telework options, they also may have been striving to retain that employee. The underlying fact was that telework, in most circumstances, enabled increased employee flexibility and more effective job performance, which directly and often indirectly, led to enhanced organizational productivity.

Table 4

Employer Rationales for Starting Telework	
Rationale (employers could identify multiple responses)	Response Rate
Respond to specific employee needs	72.5%
Recruit or retain valuable employee(s)	57%
Increase productivity and/or customer service	51%
Reduce overall operations or occupancy costs	25%
Need to work with other remote teams	21%
Comply with ADA; increase workforce diversity	22%
Respond to emergency coverage or disaster recovery	16%
Respond to regional trip reduction requirements	15%

The full questionnaire revealed that the most common type of telework was taking place in isolated situations (46 percent) which would seem to reflect that managers are responding to individual employee needs such as family issues, commute time, health, and assistance with job retention. Employers with greater than 1000 employees were more likely to offer telework to their general employee populations.

Employer Telework Practices for Teleworkers with Disabilities

In terms of incidence for teleworkers with disabilities, the full questionnaire indicated no significant difference between government and non-government sectors. As our sample was composed of only employers that offered telework, statistical significance is not as relevant since we are not able to generalize to the US employer population. Instead we can describe what we found:

- 32 percent of government employers in our sample had teleworkers with disabilities compared to 24 percent of the non-government respondents.
- More for-profit and non-profit respondents had hired more new employees with disabilities than respondents from the government sector.
- In comparing general telework incidence, employers with more than 500 employees had a higher prevalence of offering telework for employees with disabilities than employers with fewer than 500 employees. There were also proportionately more employers with greater than 500 employees who had current teleworkers with disabilities.
- The tasks of research and analysis were listed highest in the number of job functions for current teleworkers with disabilities in the federal and state public sector categories. No local government respondents reported having current teleworkers with disabilities.

There was not a significant difference in the incidence of teleworkers with disabilities among all sectors, government and non-government. There were more government

employers (32%) with current employers with disabilities than for non-government employers (24%). As company size grew smaller, the percentage of telework opportunities for persons with disabilities also decreased.

Table 5

Relation of Company Size to Telework Opportunities For Persons with Disabilities	
Number of Employees	Current Teleworkers with Disabilities
0-20	9%
21-99	23%
100-499	29%
500-999	33%
1000-9999	47%
10000+	59%

Forty-five percent of respondents indicated that telework by persons with disabilities may typically occur throughout the company as individual employee need arises. Almost 23 percent of employers reported that telework had assisted them to comply with the ADA, but this was not the most frequent response; nor did it provide the frequency of usage of telework as a disability accommodation. No employer listed ADA compliance as one of the top three reasons for implementing telework.

Since it would seem that the transition to telework would be easier for employees with disabilities who have proven work experience, we contrasted the incidence of *existing* employees with disabilities who moved to either part- or full-time telework with those *newly hired* teleworkers with disabilities who had no prior experience with the employer. As expected, the full questionnaire uncovered a much lower incidence of newly hired teleworkers with disabilities, with just 10 percent of all companies that offered telework. Employers were more open to making accommodations for existing employees possibly due to the fact that they had not had the opportunity to ascertain whether the new hire would be “worth” the investment of time and special arrangements a new teleworker with a disability would require.

Employer Telework Practices for Newly-Hired Teleworkers with Disabilities: Strategies to Ensure Success for Teleworkers with Disabilities

As shown in the table below, employer responses indicated that several job or company strategies would help to support telework for persons with disabilities who had no prior experience with the organization so long as telework arrangements were implemented.

Table 6

Strategies to Ensure Success for Newly-Hired Teleworkers with Disabilities		
Strategy	%	# (64 respondents)
Ensure that job supports are in place to ensure the teleworker will succeed	66%	42
Implementing training or work experiences to ensure teleworker is job ready	48%	31
Training programs for teleworkers and their supervisors	45%	29
Provide telework job try-out experiences on a temporary basis	42%	27
Amenable human resource policies	41%	26
Recruitment of persons with disabilities for telework position	38%	24

Adequate job supports after hire was listed most frequently among the multiple selections that employers could choose. These responses do not indicate current practices among employers with teleworkers with disabilities, rather they are suggestions offered to better ensure the success of these telework arrangements.

- 10% of all responding organizations reported they have directly hired new persons with disabilities to telework, while 48% said they have not, and 40% said they did not know.
- Job functions included research and analysis (62%); office functions (55%); administrative (52%); customer service (48%); and call centers (47%).
- There were no discernable trends for employer practices in hiring new teleworkers with disabilities; however, both for-profit and non-profit employers were more likely to provide opportunities for new teleworkers with disabilities.

There were more opportunities for newly hired teleworkers with disabilities in employers with less than 500 employees. This contradicts the pattern we saw among general telework and disabled teleworkers, likely because of the small sample

Employer Resistance to Telework

Only 26 total employers had hired new employees with disabilities into telework, which pointed to the difficulties in finding these pockets of employers. Employers identified a host of problems and challenges in the hiring of new employees with disabilities into telework jobs:

Most Challenging were:

- Job tasks were not a fit for telework 48%
- Measuring employee performance is difficult 42%

- Supervisors are uncertain about managing teleworkers 39%
- Not a management priority 34%
- Managers/supervisors are resistant 32%
- Employee selection fairness 28%
- Concern about employee isolation 26%

Less challenging were:

- Cost of technology 22%
- Legal/safety issues 17%
- High accommodation costs 11%

Many of the most frequently cited barriers concerned trust and monitoring of a new teleworker’s performance. The lack of physical proximity to the supervisor was the underlying condition under which teleworker skill levels and work habits were “unknown”. Note, however, that nearly one third (31%) of all respondents were optimistic that all challenges could be overcome.

To probe further, we examined 102 open-ended responses to a question, asking employers why they had not hired new employees with disabilities as teleworkers⁸. We expected certain responses, such as job is not a good fit, or management is wary of telework. Yet many responses indicated that telework by new employees with disabilities was far from a hopeless cause. Of the open-ended responses, 15 respondents said there was no particular reason for the lack of teleworking by new employees with disabilities. Six respondents said no persons with disabilities had applied. Another 11 respondents indicated the situation had never arisen. And 14 other respondents said they did not know why teleworking by new employees with disabilities had not occurred. Therefore, nearly half of the respondents (46 of 102) provided information, which would not rule out teleworking for new employees with disabilities.

Responses to another question, “Would you encourage other divisions or groups within your company or organization to consider telework for *new* employees who have a disability?” also are promising. Of the 226 responding employers, only eight said “no” and another 23 said “don’t know.” Sixty-six said “possibly” and 129 said “yes” which represented 57 percent of all respondents. If one combined those responding “yes” with those responding “possibly,” fully 86 percent of the respondents had a positive inclination.

Summary

We found telework to be more prevalent in the private sector. Employers were most likely to implement telework to respond to a current employee’s specific need, which was taking place in isolated situations throughout the company. Employee retention and

⁸ Q. 14. “Any particular reason why not?”

increased productivity were ranked as next important for telework implementation. A smaller percentage of private sector companies and employers with 500 or less employees were more likely to hire persons with disabilities as newly hired teleworkers. The majority of newly hired teleworkers with disabilities were hired as contractors.

Across industries, evidence suggested telework jobs for persons with disabilities share common characteristics, including phone use, computer skills, and internal and external customer skills to perform their work. These characteristics also are quite prevalent in those industries with the most telework positions, such as finance, communications, data processing, and government. Regardless of the industry represented, there were specific job tasks identified that were most prevalent across the broad range of employers. Telework job tasks were primarily distributed in the areas of office work, research, administrative, customer service, technician and computer programming. Primary pockets of jobs for newly hired teleworkers with disabilities were reported as similar to job tasks reported for the overall employee population.

Employer benefits most highly rated were employee retention and, increased productivity. Employer barriers to hiring new employees with disabilities as teleworkers emphasized that job tasks may not be a fit or there was manager/supervisor resistance. Teleworkers were seen as more difficult to manage and to monitor performance as the employee was out of sight from the supervisor.

The distinction was important in defining *existing* employees with disabilities who moved to either part- or full-time telework, as contrasted with those *newly hired* teleworkers with disabilities who had no prior in-house work experience with the employer. The former has proven work experiences recognized by and familiar to their supervisors; thus easing their move to telework. A much lower incidence of newly hired teleworkers with disabilities, were hired directly into telework jobs. This represented 10% of all respondents that offered telework. Newly hired teleworkers, having no past work experience with their hiring employer, pose more of a challenge to supervisors as they have limited knowledge of actual teleworker skills and work behaviors. Employers were more open to making telework accommodations for existing employees with disabilities. In newly hiring teleworkers with disabilities, employers do not have the opportunity to ascertain whether a new hire would be “worth” the investment of time and special arrangements.

In order to increase telework opportunities for newly hired persons with disabilities, employers recommended that specific steps and supports could be utilized such as to ensure job supports are in place to assist teleworker to succeed (66%); assess teleworkers to gain skills before hire through training programs (45.3%); implement training or work experiences to ensure teleworker is job ready (45.4%); and utilize telework job try-out experiences on a temporary basis before hire (42%).

Almost one fourth of employers indicated they would consider combining specific repetitive functions in several jobs to one job the teleworker could perform.⁹ Almost one third of employer respondents were optimistic that all challenges with telework could be

⁹ Generally, respondents from the national questionnaire were unaware of the possibilities of “job carving” or “job restructuring” as telework options. This rehabilitative job approach relies on arraying tasks by work function complexity, “carving out” low level functions from higher level functions, taking away more routine tasks from existing employees. The employees we contacted required explanations of job carving / job restructuring opportunities.

overcome and almost 50% of employers reported they believed the practice of telework would increase during the next five years.

V. DEMONSTRATION SITES

The full national employer questionnaire dealt only with telework practices from the employer perspective at pre-screened companies and government agencies. The demonstration sites were implemented in fall 2005 and continued through December 2007. The purpose of the demonstration site research was to document the preparation, practices, and barriers that employment supervisors, rehabilitation agencies, and teleworkers with disabilities encountered in the process of securing employment work for teleworkers with disabilities, and had a goal of placing a total of 40 teleworkers with disabilities, including veterans and injured workers. The project focused on assisting the workforce entry for newly hired teleworkers with disabilities. Therefore the processes and steps needed and used to successfully place teleworkers were integral to reaching project outcomes. The rehabilitation agencies and the client referral agencies played a major part in ensuring participants were trained and placed through additional funding for one-on-one support of teleworkers.

The research process involved documentation of productivity, job satisfaction, job loyalty and barriers affiliated with successful telework implementation as reported by teleworkers, supervisors and coworkers.

Project phases included employer and teleworker recruitment, teleworker skill preparation, placement, and job retention services. Formal pre- and post-placement questionnaires were administered to participating supervisors and teleworkers. Coworkers of placed teleworkers participated in a focus group and telework coordinators were interviewed quarterly to obtain documentation of the training and placement processes, as well as for barriers encountered.

Employer Recruitment and Development

Key to our employer engagement was the differentiation between telework opportunities for existing employees with disabilities in comparison to those teleworkers who were newly hired. These were two distinctive populations, as the former had job experience with the employer and their performance levels were known from working in-house. Newly hired teleworkers were rarer as they did not have a job history and lacked the proximity of face-to-face supervision.

Both Minnesota and Wisconsin demonstration sites had existing Business Advisory Councils composed of over 100 employers that have hired job candidates from each agency. We started the recruitment by offering project briefing sessions to educate and engage these companies to examine pockets of jobs conducive to telework. We also asked for employer advice and assistance with recruitment approaches for identifying and connecting with their organization and/or other potential companies.

We met face-to-face with over 50 companies that expressed interest in pursuing telework, particularly if it involved entry-level workforce needs for call center agents and

data entry. The employer recruitment process involved meeting several times with companies interested in the project. We identified six employers that were seriously interested in employing newly-hired teleworkers. Large organizations with 1000 or more employees found it more complicated to proceed due to a variety of factors that weighed into successful implementation. These factors, also documented in the national employer survey, included supervisor and management resistance, difficulty in measuring performance, and ensuring the teleworker was skilled and proficient at the job.

Many of our first interviews with employers, indicated they were not prepared in regard to the technology infrastructure needed and/or did not know how to incorporate the practice into their business models. Telework coordinators found many companies open to the idea of telework. Types of telework varied from formal programs and policies to informal or as needed telework. Companies reported that some employees telework on a part-time basis or informally, are part of a mobile or sales workforce, or telework due to their prior work experience.

Employer development was time consuming as the first point of contact was often the human resources (HR) director or manager. These individuals had several more steps to take if interested in the hiring of new teleworkers. HR staff would often need to obtain buy-in not only from supervisors, but in some cases, executive-level approval.

As the employer recruitment process continued, the coordinators targeted employers that already utilized telework or at the least were technology ready. Within these 50 employers contacted, several designated their call centers as having potential for telework opportunities for new hires. In addition, they suggested other companies that provide customer service outsourcing. Such organizations provide the management of entry-level and sometimes advanced call agent jobs. Large companies such as Interval International, Carnival Cruise, Disney and others contracted out call agent functions to these management firms, such as Arise, Alpine Access, Workplace Solutions and 1-800 Flowers. Outsourcing companies hire agents and are responsible for supervision, performance, and quality control of home-based agents

Experience with the demonstration sites confirmed some of the employer resistance to utilizing remote workers. Observations from the field suggested that certain industries were not as conducive to telework. Companies in the medical or collection industries were largely ruled out due to current federal HIPAA regulations and privacy concerns. One exception in the medical industry indicated that jobs of medical transcription and coding did utilize teleworkers, but required employees to have specific training and skill sets – often with prior work experience.

Telework coordinators found many companies were not set up to deal with that type of employee while others had productivity concerns. For those that were cautious, the fact that the teleworker may be disabled was often a secondary concern. Employers were actually more concerned about hiring teleworkers with whom they had no previous experience. A common complaint among managers was that they lose many of the informal avenues for communication used to pass along meaning and information when off-site workers were utilized

Five active employers, two national and four local, were interested in primarily providing inbound and outbound call agent jobs with one having a word processing job. Newly hired teleworkers performed customer service tasks on average from 20 to 40 hours per week from their home offices. These employers were SERVICE 800, United

Way 211, and Arise. Our study did not involve telemarketing, in which sales cold calls are conducted over the phone. Rather the focus was on inbound customer service jobs that were contracted out for IBM, Sears, Walgreens, Carnival Cruise, and Triple AAA – with average wages of \$9 to \$13 per hour.

Despite employer rationales to reduce operating expenses, telework could be cost prohibitive during the initial startup phase for both the employer and employee. One solution for certain companies such as Arise, whose whole business model is centered on the virtual call center, was to pass many of the costs onto the teleworkers.

For employers that have not traditionally utilized telework, though, it was important to inform them of the potential for reduced operations costs, enhanced ability to meet bottom-line business objectives, and increased employee retention. As the coordinators found, most employers were open to the idea of telework; as such, in many cases it was more about motivating – rather than convincing – them to participate. In addition there were also employer considerations about the costs of setting up the technology infrastructure, establishing teleworker skill building, and finding the time to implement the arrangement.

Teleworker Perspectives

Recruitment of Teleworkers

The goal was to document data on a sample of subjects with a broad range of disability types and/or who have major barriers to employment. STRIDE's first priority was to serve those who absolutely needed to telework due to disability challenges, yet did not deny services to those whose disabilities are not as severe or need not as great. Initial recruitment criteria were for individuals who both had the need or ability to complete job tasks and had a desire to pursue a telework position.

We began recruitment of the treatment group in early 2006. Subjects were recruited from a pool of applicants identified through the Veterans Administration, Workers' Compensation Qualified Rehabilitation Specialists (QRSs), and Workforce Center counselors. These referral sources communicated directly with the telework coordinators from Minnesota Resource Center (MRC) and Stout Vocational Rehabilitation Institute. In procuring state of Wisconsin workers compensation support, it was agreed that clients would be referred through one state of Wisconsin employment specialist who dealt with employment support in western Wisconsin.

Telework coordinators met with VA and Workforce Center Rehabilitation Services counselors in order to inform and educate about telework jobs and candidate requirements. In both Minnesota and Wisconsin, WFC counselors were offered 2-hour briefing sessions in which an employer, Arise, was present to answer questions about call agent telework jobs. This enabled WFC and VA counselors to receive more detailed information about employer expectations on telework. WFC counselors had thought that many jobs could be opened up for newly hired teleworkers with disabilities. Since Arise had contractor positions some rehabilitation counselors expressed concern about the lack of medical benefits and the lower entry-level wages. Direct dialog with an employer encouraged rehabilitation support as both the VA and Rehabilitation Services were responsible for funding the telework training and the equipment requirements for

teleworkers. It was important that rehabilitation counselors understood the difference between contractor and employee responsibilities.

At the first point of client contact, the telework coordinators informed clients and their referring counselors of their eligibility and distributed information on the program. After referrals were received, 64 applicants took part in intake interviews and orientations conducted by MRC and Stout on the telework project and services. At this time, release of information and consent forms, along with initial teleworker surveys were obtained. Project staff then developed individual employment plans with each candidate.

Teleworker preparatory expenses included vocational evaluation, telework training, computer, broadband installation, phone and secondary phone or cell phone.

Teleworker Training and Placement Strategies

Seventy-two individuals were recruited to participate as teleworkers. From that group, four were veterans with disabilities and eight were workers' compensation beneficiaries. Remaining participants were recruited through the state vocational rehabilitation system.

Besides "teleworker," there were a variety of names used for the profession including home-based agent and remote worker. Regardless of how telework was identified, teleworkers needed to have a number of specific skill sets in order to be successful. The best teleworker, in general, was self-motivated and highly self-disciplined with the capacity to effectively use a computer and troubleshoot when necessary. Based on our experiences, many STRIDE participants lacked self-confidence and did not seem job ready for that type of work environment initially.

MRC and Stout utilized a multi-phase process in order to prepare the participants. To ensure candidates were telework job ready, we conducted initial equipment overviews and a half-day vocational evaluation to assess computer and customer service aptitude. If a participant's computer skills needed improvement, self-paced learning was often provided through a rehabilitation agency. Teleworkers also completed a Teleworker Discussion Application that assessed all factors that could impact their productivity in working at home such as family, other distractions, housing, financial and security.

In order to become eligible to apply for various employer call agent positions, candidates were required by employers to complete and pass web assessments of their computer aptitude, business reasoning, personality characteristics and voice quality. Employers utilized a variety of screening mechanisms so MITE developed teleworker training around a core set of aptitudes needed to successfully meet the employer eligibility criteria for entering call agent jobs. This Phase One training was not required of potential teleworkers as some individuals believed they had sufficient skills. Fifty individuals indicated an interest in pursuing this initial training.

Training Phase One: Teleworkers participated in 20 hours of MRC-provided training to practice skills in customer service, problem-solving, computer aptitude, following directions and communications. Trainees reported that the training helped to decrease applicant test anxiety and to achieve scores needed to be eligible to apply for the jobs. In addition a home office evaluation to assess technology requirements and the work environment was conducted for each candidate. This training was offered either in the classroom or remotely from their homes. All of the Wisconsin participants and 50% of Minnesota trainees received the training at their homes. Classes were composed of five to six trainees, which allowed effective 1:1 assistance and also group discussion.

Thirty-eight individuals completed the initial training phase and successfully passed the employer web assessment in order to pursue the first stage of self-paced 20 hour training provided by the employer. For individuals who had difficulty with the web assessment, additional computer training and assistance was provided. Self-paced training covered all the basic concepts of the call center, including hours reporting and scheduling. After successfully completing this training individuals were technically hired agents. The majority of dropouts occurred during the training phase either because a STRIDE participant could not effectively manage their disability or did not know how to adjust when technical problems arose. There was no demonstrated correlation between training approach and likelihood of dropout. The next teleworker step was to select their corporate training path and successfully complete Phase Two training.

Training Phase Two: The training was provided by the employer in which trainees received and mastered specific customer content on products and services, along with call center protocol and troubleshooting. Training was conducted over a period of 3 days to 4 weeks, depending upon the complexity of the training content. During Phase Two, one of the major employers, Arise worked with MRC to ensure the training process matched and complemented the skills needed for Arise jobs. Arise provided a weekly conference call with our classes to ensure trainees understood the web-based curriculum

According to the telework coordinators, the home office assessment proved to be extremely beneficial for all parties involved, but also involved increased amounts of staff time to complete. Participants also were required to become incorporated as a small business in their respective states. Several participants were required to demonstrate a basic proficiency in using the adaptive equipment prior to Phase Two training..

Teleworker Outcomes

Of the 72 teleworkers recruited, 38 entered training, and 31 became employed as contractors. The remaining seven persons dropped out of the training or decided against pursuing call agent jobs. Hiring employers included Arise, SERVICE 800, Alpine Access, United Way 211 and University of Wisconsin Stout.

Participant disabilities are represented in the table below with examples.

**Table 7
Representation of Teleworker Disabilities**

Disability	Number	%
<u>Mental Health</u>	13	20
Mental illness, depression, anxiety disorder, agoraphobia, panic disorder		
<u>Physical</u>	47	72
Back injury, asthma, MS, cardiac, neuromuscular atrophy, spinal cord injury, epilepsy, diabetes, arthritis, COPD, spinal cord stenosis,		
<u>Sensory</u>	5	8
Visual impairment, blindness		
Number	65	100

Employment Status

The majority of teleworkers were contractors. Arise hired their “cyber agents” as contractors who passed their training programs. Teleworkers did not receive benefits, signed a statement of work and were contractually obligated to service customers during the times they scheduled for themselves. Any changes to a schedule had to be submitted at least 72 hours in advance. United Way 211 hired part-time employees, through MRC, a rehabilitation agency. SERVICE 800 hired trainees as employees, but received no benefits.

Teleworker Job Expectations

In a survey of 50 teleworkers at program start, majorities of respondents revealed an expectation that telework would help them to obtain the following job attributes.

Table 8
Teleworker Expectations at Program Start

Teleworker Expectation	Number	Percent
Increased Time Spent Working on Tasks and Objectives	37	74
Increase Opportunities for Career Development	43	86
Improvement in Quality of Home Life	41	82
Increased Quality of Employer Support Services	38	76
Assistance From Rehabilitation Counselor, Employment Specialist, etc.	40	80

The majority of potential teleworkers had high expectations that telework would affect their lives positively. Approximately 80 percent of respondents anticipated assistance from a rehabilitation counselor, employment specialist, other professional, or family member in performing telework duties. Before placement 50% of subjects reported they would have earnings comparable to or less than wages they had formerly earned. Sixteen percent expected they would earn more. Eighty percent of respondents indicated they would receive job supports in performing their telework job.

Work hours

Teleworker hours varied from 10 hours to over 50 hours per week. Teleworkers could work increased hours as they gained more experience with the corporate client. The average contractor worked between 20 to 25 hours per week.

Placement Statistics

Teleworkers were placed into the following job categories, wages and hours. (Table 9). Over 95 percent of teleworkers were required to work a minimum of 15 hours per week. Ninety percent of the teleworkers determined their hours and schedule. Hours were posted weekly from which the teleworker could select.

Thirty-one participants were placed as contractors among five companies, with the largest number of hires by Arise. Call agent job titles included service representative,

cyber-agent, and customer service. Over 90 percent of teleworkers worked part-time hours in order to preserve their stamina and prevent fatigue. For many, full-time work would have been improbable. Some individuals were able to build their stamina in order to work more hours after a few months on the job.

Table 9
Teleworker Workload and Compensation Rates

Position	# Hired	Wage Rate	Hrs / Week
Call Agent	29	\$8.50 - \$13/hour	15 – 50+
Word Processor	1	\$10/hour	15
Web Designer	1	\$9/hour	< 10

Teleworker Compensation

In the pre-placement surveys, many respondents seemed to perceive a telework job as a steady source of income. In reality, however, those who were placed had a variety of compensation experiences. In the Wisconsin demonstration site, the salary for those placed ranged between \$200 and \$800 per month. In Minnesota, the average pay was slightly higher (closer to \$1,000 per month), but overall compensation still did not meet expectations for many. After six months of teleworking, six of eight survey respondents indicated that their discretionary income either hadn't changed (four) or decreased somewhat (two). With respect to satisfaction of wages or salary, four of eight such respondents indicated that they were "very satisfied" with compensation; however, two respondents replied that they were "very dissatisfied."

Due to the variations in compensation as contractors, telework was not always viewed as a reliable source of income. In addition, some of the teleworkers experienced life changes such as moving, eviction and medical surgeries. These caused a disruption in their work and loss of income.

For those who work with virtual call centers such as Arise, teleworkers are able to choose specific corporate clients and engage in their specific corporate training. Examples include Carnival Cruise, Walgreens and many others. Each corporate client had different levels and types of pay. Some of these clients paid a base wage hourly wage while others operated on a pay-per-call model. Therefore, teleworker compensation depended upon the corporate client that was selected.

The mean wage was \$10.22 per hour. Hourly wages were offered by SERVICE 800, United Way 211, Alpine Access and University of Wisconsin-Stout. Arise, teleworkers were offered several options: a base hourly wage; income based on total number of calls received; and a combination of both. Teleworkers could increase income if customers purchased further products or services during calls. After 3 months on the job teleworkers could apply for other corporate clients as contractors, which would often raise their income up to \$12 to \$13 per hour. In order for contractors to move to higher income, teleworkers had to learn and master more complicated and sophisticated customer content.

Before placement approximately 50% of subjects reported they would have earnings comparable to or less than compensation they had in their former jobs or most recent jobs. Sixteen percent of teleworkers reported they would earn more than in the past.

Job Retention

Of the 31 persons who entered employment, 27 still remain employed, a retention rate of 87%. During the first three months of employment, teleworkers often needed telework coordinator support to assist them with various challenges: equipment glitches or malfunctions, scheduling work hours, family-related work disruptions, debt management, unexpected health issues, and lack of self confidence. Telework coordinators proved to be critical intermediary staff to facilitate communication with the employers.

Post Placement Surveys

The table below compares teleworker expectations and experiences at placement and post placement. Compared to the at-placement survey—in which 18 respondents participated, only eight teleworkers participated in the six-months-after-placement survey because post surveys were either emailed or mailed to respondents. The pool of respondents for the six-month survey was lower since a majority of teleworkers had been placed, but had not reached their 6-month employment mark yet. As the number of six-month surveys is substantially lower, it is difficult to draw specific conclusions. Teleworker overall job satisfaction expectations at time of placement were higher in comparison to those held at six months.

Table 10
Teleworker Expectations at Placement and 6 months Post Placement

Expectation	At Placement		After Six Months	
	Number	%	Number	%
Increased Overall Job Satisfaction	15	83.3	5	62.5
Increased Quality of Home Life	12	66.7	5	62.5
Increased Opportunity for Career Development and Advancement	12	66.7	4	50
Increased Quality of Employer Support Services	6	33.3	3	37.5
Decreased Incentive to Stay on Public Assistance	8	44.4	4	50

Beyond that, on three of the questions the post-placement percentages were either higher (2) or nearly as high (1) as those indicated in the at-placement survey. Overall, the results show that teleworkers had relatively reasonable expectations about the jobs except with regard to their overall job satisfaction.

Table 11
Job Loyalty

	Number of respondents indicating “agree” or “strongly agree”	Percent of respondents indicating “agree” or “strongly agree”
I feel very loyal to this organization	4	100
I could just as well be working in a different organization as long as the type of work were similar	1	25
It would take very little change in my present circumstances to cause me to leave this organization	1	25
For me, this is the best of all possible organizations for which to work	4	100
I intend to stay with this organization for a long time	3	75

Barriers Encountered

Other survey data obtained from teleworkers after six months on the job indicated concerns over: income (37.5%); inadequate office equipment (25) and computer connectivity (12.5); dissatisfaction over relationships with co-workers (37.5) and contact with co-workers, team leaders or supervisors (37.5); increased anxiety to perform (50); as well as issues with health and disability (37.5) and fatigue and stamina (37.5).

Table 12
Frequency of Barriers Encountered

	Number of respondents indicating given barrier	Percent of respondents indicating given barrier
Increased anxiety to perform	4	50
Inadequate contact with co-workers, team leaders, and supervisor	3	37.5
Poor relationships with co-workers	3	37.5
Inadequate income	3	37.5
Health and disability complications	3	37.5
Fatigue and stamina challenges	3	37.5
Inadequate office equipment	2	25

Inadequate computer connectivity	1	12.5
Challenges in multi-tasking	1	12.5
Poor relationships with supervisor	0	0
Inadequate support services	0	0
Distractions at home	0	0
Excessive work	0	0

Productivity Indicators

Since starting telework, no discernible changes had occurred for the following job factors:

- Ability to maintain my health
- Ability to manage my disability symptoms
- Level of perceived job stress
- Quality of vocational support
- Amount of discretionary income
- My incentives to stay on public assistance
- My involvement in community activities

In surveys, respondents reported that the training process was lengthy, and depending on the employer, more difficult than most trainees anticipated. In part, being physically or emotionally disabled left many unprepared for the rigors of telework. Even if the individual was well qualified and committed to the process, moving into training could still be a difficult transition. According to the telework coordinators, progress was slow for some due to low computer proficiency and/or poor soft skills.

**Table 13
Measures of Productivity from Teleworker Six-Month Survey**

	Number of Respondents Indicating “Increased Significantly” or “Increased Somewhat”	Percent of Respondents Indicating “Increased Significantly” or “Increased Somewhat”
Quality of supervisor relationship	5	62.5
Overall effectiveness in my job	1	12.5
Quality of customer relationships	6	75
Quantity of work produced	6	75
Ability to get work finished on time	5	62.5
Quality of my home life	5	62.5
Time management skills	7	87.2

The nature of the corporate training for virtual call center companies was also stressful, and made more difficult by the fact that it was done remotely. The training was fast paced and instructors varied on the types of support provided to trainees. Telework coordinators also documented increased levels of anxiety and stress when participants entered the corporate training.

Teleworker interviews were conducted by the research staff through focus groups and interviews between August 2006 and June 2007. One participant described telework as a way to move forward because “there is a big stigma about being unemployed” and noted “Most disabled people would jump at the chance to be productive.” The individual also added that a major benefit to working with a company like Arise was that teleworkers could pick corporate clients that fit their interests and skill sets”.

When asked to describe various advantages of telework, one teleworker responded, “I can be at my best because I know I can stay healthier. I can work harder for my employers. I have my comforts of home and will be able to concentrate on my work better.” Another suggested, “Being self employed increases my sense of responsibility to the max. It's exciting for me to see how far I can go with this challenge.” A third reported, “I have the added bonus of saving on gas money and receiving a boost in income”.

A smaller number of teleworkers described the disadvantages. These included statements about a lack of fringe benefits, feelings of isolation and establishing a different type of work ethic.

Teleworker Exit Interviews and Surveys

Of the 72 persons who were recruited 38 actively continued into the STRIDE program. Individuals who did not pursue telework reported reasons that were distributed equally among respondents. Program exit reasons included medical issues or health problems, change of job goal to community-based employment, inability to qualify for work, difficulties in obtaining computer equipment or internet service, increased stress, lack of interest or follow-through, and desire to work outside of the home. Four candidates pursued jobs outside of the home.

In interviews and placement surveys, some participants reported both glitches with equipment and problems with the trainers. Not getting the appropriate equipment in a timely manner also added to frustrations for some teleworkers. The telework coordinators proved to be critical intermediary staff to provide support to teleworkers as they could work 1:1 with them to troubleshoot or problem solve. The coordinators also worked closely with the employer and held weekly conference calls to ensure participants were able to resolve issues that were impairing their employment process

Other teleworkers had more difficulty adjusting to their new employment situation. Those who have struggled reported high levels of anxiety from suddenly being on their own and accountable to an employer.

In a focus group teleworkers reported there could be a high level of anxiety in the beginning of the job. Teleworkers and coworkers interviewed all mentioned that it was very important to pick Arise corporate clients that aligned with personal interests and to get started with at least one right away. As one teleworker noted, “Waiting to get started will only stress you out more.” According to telework coordinators, a large share of

teleworkers reported the initial three months of employment were the most difficult for placed participants.

For a disabled individual who was already on a fixed income, telework required additional funds for the initial cost of going from intake to working with an employer, roughly \$2000 for computer, internet and broadband installation, phone, headset and printer. In addition, the ongoing monthly costs to pay for a dedicated phone line, technology support and a DSL or cable Internet connection could be over \$100 per month. For participants in the rural areas, the Internet costs could be even higher due to the limited number of providers. One Wisconsin teleworker reported not being able to work because dial-up speed was the only option available in his geographic area.. Set-up and ongoing costs alone could deter some potential participants.

To remedy this, we obtained permission to offer funds to pay for monthly broadband, internet and second phone costs for teleworkers during the first three months after placement. This Technology Fund helped to relieve the anxiety in regard to teleworker financial instability. As contractors, Arise teleworker income was lower at the start of their job as they were building their speed and knowledge regarding their selected corporate client. This fund was invaluable for other emergency costs arose such as phone line complications, equipment malfunction or warranty issues.

For STRIDE participants, certain avenues of funding were secured to help reduce some of the initial home office expenses. For example, the necessary phones and headsets were furnished by Vocation Rehabilitation and the Veteran’s Administration for some. Other funding sources were used to pay for the first three months of Internet access. For the most part, however, money was not available for new or updated computers.

Supervisor Perspectives

At Placement Survey

At placement, supervisors anticipated that teleworkers would either satisfy or exceed supervisor expectations with respect to productivity and job satisfaction.

**Table 14
Supervisor Expectations**

	Number of Supervisors Anticipating Teleworker to “Satisfy” or “Exceed” Supervisor Expectations	Percent of Supervisors Anticipating Teleworker to “Satisfy” or “Exceed” Supervisor Expectations
Teleworker’s level of productivity	2	100
Teleworker’s level of job satisfaction	2	100
Teleworker’s ability to meet deadlines	2	100
Quality of relationship with teleworker	2	100
Time teleworker spends on tasks and objectives	2	100
Number of hours teleworkers spends working each day	1	50

Amount of time per day teleworker loses to interruptions	2	100
Opportunities supervisor has to talk with teleworker	2	100
Ability to amply monitor employee's work and effectively evaluate performance	2	100
Potential to benefit organization	2	100
Effects on morale among co-workers	1	50
Teleworker ability to manage disability	2	100
Teleworker ability to provide improved customer coverage and hours	1	50

According to surveys and interviews with managers having teleworkers allowed them to reduce overhead costs, to avoid the spread of communicable diseases among employees, to reduce the impact severe weather has on workflow, and provide more effective 24 x 7 customer service coverage. These positions were seen as appropriate for individuals who experience chronic pain or fatigue due to their disability and, as a result, can work only part time.

After-Placement Survey

Table 15
Supervisor Attitudes after Six Months of Teleworker Supervision

	Number of supervisors indicating "significant", "some", or "no" increase	Percent of supervisors indicating "significant", "some", or "no" increase
Teleworker level of productivity	4	100
Teleworker level of jobs satisfaction	3	75
Teleworkers level of job stress	2	50
Teleworkers ability to maintain health	3	75
Quality of teleworker's relationships with co-workers	4	100
Teleworker's opportunities for development and advancement	4	100
My ability to amply observe my employees and effectively evaluate their performance	4	100

We utilized four supervisors for the surveys administered after six months of teleworker placement. Three of four participating supervisors indicated that teleworker

productivity either increased somewhat or remained unchanged over the time span. Similarly, three of four supervisors suggested that the teleworkers' level of job satisfaction had increased somewhat. Two supervisors strongly agreed that telework had increased the level of trust between supervisor and teleworker. Three of four supervisors either disagreed or strongly disagreed that telework had negative effects on morale among coworkers or non-teleworking staff.

Specifically, one supervisor noted that:

Once the teleworkers successfully complete the admissions process (and) basic training, and have the confidence to complete the certification course and begin servicing, they are a wonderful asset to the organization. Since they work independently - their lack of self-confidence gets in the way. Once that is overcome - they are on their way to success.

A less flexible work schedule coupled with the added degree of stress when technical problems come up slowed progress for many participants. To combat this, the telework coordinators at MRC and Stout remained in contact with the participants and the employer after they began working. Specifically, they began holding weekly conference calls with Arise supervisors. Normally progress reports could only be shared with the remote worker, but due to this unique position of STRIDE, Arise gave the coordinators access to the information as well.

Table 16
Issues Encountered in Supervising Teleworkers

	Number of supervisors indicating “strongly agree”, “agree”, or “neutral”	Percent of supervisors indicating “strongly agree”, “agree”, or “neutral”
I have opportunities to talk with the teleworker I supervise	4	100
There are disadvantages within my unit due to telework	0	0
Telework has led to a loss of supervisory control over my employees	0	0
Telework has increased the level of trust between myself and my employees	3	75
Telework has negative effects on co-worker morale	0	0

In another supervisor survey, the respondent notes some difficulty associated with limited personal interaction, stating that teleworkers “miss the face to face contact.” In conversations with managers from Arise, they explained that it was difficult to make the

STRIDE participants realize that Arise was not their supervisor. The teleworkers were independent contractors and business owners. They did not have a natural group of coworkers. Teleworkers paid themselves through a business account, but compensation was largely dependent on the client and call type they chose.

Coworker Perspectives

As over 80% of our teleworkers were contractors, they did not have traditional coworkers. Research staff interviewed teleworking “peers” with disabilities through a focus group. This peer group was composed of teleworkers who had similar jobs as the treatment group and had been employed for 2 years at minimum. Arise teleworkers were supported by an online group leader who helped to guide them in problem-solving and if they experienced challenges with customers. These peers, who were also contractors, highlighted the benefits of the online teleworker communities and nonprofit associations such as the Cyber Agent Association (CAA). Although we have no demonstrated evidence of their effectiveness, such platforms may hold promise in allowing some remote workers to break out from their relative isolation and share advice, provide encouragement and build friendships.

According to non-STRIDE teleworkers in interviews, teleworking can be a rewarding alternative employment option if taken seriously. According to a quadriplegic teleworker from the interview group who contracts with Arise, for example, the scheduling flexibility was great because “You can manage your time in regards to your therapy or going to the doctor or however you choose. In a group interview, one co-worker stated that, “In this type of world, you have to become more budget conscious and understand your money.”

VI. CASE STUDY FINDINGS AND IMPLICATIONS

The case studies illustrated the substantial variety that exists in teleworking by persons with disabilities. Based on the cases, there appear to be several categories, or models, currently:

1. Disability-centered teleworking—This is exemplified by targeting a pool of persons with disabilities from a rehabilitation agency, vendor, or other source in which specialized training and support is provided to potential teleworkers. LIFT, United Way 211, and the original Arise approach, when it began as Willow are examples of this model.
2. Home-based teleworking drawing upon disabled individuals—This includes SERVICE 800, the current Arise approach, and The Hartford Customer Service Group. This model offers telework to persons with disabilities and non-disabled individuals.
3. Incidental or intermittent teleworking--This allows persons with disabilities to participate but having a disability is incidental. These are initiatives which

were started for general corporate purposes or other reasons, such as the State of Arizona (reduce traffic congestion) and the anonymous company (corporate culture).

Another possible typology would be employee-centered programs and business-centered programs. Using this typology, the cases would be classified as follows:

Employee with a disability-centered

LIFT

Arise (original)

Business-centered

United Way 211

SERVICE 800

Arise (current)

The Hartford Customer Service Group

Working Solutions, Alpine Access

State of Arizona

Anonymous company

A third approach would be to categorize the cases along a continuum in which there is a varying degree of engagement of, or focus on, persons with disabilities. The employee-centered programs as well as United Way 211 began initiatives exclusively with persons with disabilities. These programs are closely tied and partnered with rehabilitation agencies. At the other end of the continuum are the State of Arizona and the anonymous company where disability was inconsequential when teleworking began. In Arizona, the primary objective of teleworking was, and continues to be, to reduce transportation congestion while for the anonymous company, the culture is oriented to telework for all employees.¹⁰

Because each of these teleworking programs has multiple dimensions, all of the categorizations are somewhat imperfect. Not only is there fluidity across the models to some extent, a number of programs have evolved over time. Arise began as a telework program for blind individuals and now has a workforce which is largely non-disabled. The Hartford Customer Service Group began as a traditional call center, then began a very limited initiative to retain several individuals with disabilities, and now has evolved into a more widespread home-based program encompassing other teleworkers, the majority of whom still do not have disabilities.

Implications of Cases for Future Telework Involving Persons with Disabilities

10 In neither situation is there assistance provided by a third party in recruitment and selection. Nor is telework training provided prior to hiring. Post-hiring employment support is provided by the anonymous company but not by State of Arizona departments and agencies.

Because of the wide variety of case approaches, it is unlikely that there are a small number of necessary and sufficient elements for a successful telework program involving persons with disabilities. ¹¹ STRIDE staff believe, however, the following conditions strongly increase the likelihood of a successful initiative of teleworking by persons with disabilities:

- To ensure a pool of potential candidates, rehabilitation/referral agencies need a thorough understanding of telework, constraints and objectives of employers, and types of candidates best suited to telework.
- Employers must guide the effort to ensure that necessary skills will be taught to candidates and that the specific job tasks of the teleworkers are meeting employers' needs. Employers also must understand at the outset that some persons with disabilities will require schedules to accommodate their medical appointments and disabilities and that some individuals may need employment supports.
- Teleworker candidates should receive customized training and employment supports for a specific employer, in addition to any basic training provided to all candidates. Customized training is required because the working environment and teleworkers' backgrounds will be vastly different in scope and length for a new hire with little or no prior work history, a new hire with related work history, and an existing employee who transitions to telework because of a disability challenge. Training also may be different depending on whether the person is teleworking full-time (or part-time) or is splitting time between an office and home.
- Employers that are reluctant to begin a telework program or hire new employees to telework should consider work trials or internships. These are often valuable as are part-time positions or splitting time between an office and home setting, if that is possible.
- Employee performance should be assessed early, ideally after one or two months, with appropriate remedial activities and further employment supports, if needed.

Because of the more elaborate selection and recruitment process, individualized customized training, and employment supports for some individuals, telework placement costs frequently will be twice those for the same positions not involving teleworking by persons with disabilities.

The cases yielded other practical information as information from the cases are somewhat at odds with either prevailing views in the past. For instance, communication problems were not found to inhibit teleworking in the cases. Perhaps that should not be

¹¹ The Wisconsin Department of Transportation and Tennessee Valley Authority had telecommuting or home-based programs oriented to persons with disabilities. Those programs existed for years and were quite different than any of the cases developed for this project. It is unknown why those programs were terminated.

surprising given that a teleworker can communicate with his/her supervisor or co-worker not only by telephone and email but also via one of the instant messaging providers. Also few teleworkers seem to be worried about becoming isolated by working at home, and jealousy problems with co-workers who are not teleworking do not seem to exist as they did a decade ago.

Compared to the past, there are fewer supervisory concerns that a teleworker will be less productive at home than in an office setting. No doubt there are many supervisors who still believe that an employee out of his line of sight will be less productive, but improved technology and methods for measuring employees' output make visual oversight less necessary for many jobs. And if wary supervisors know their superiors are supportive of teleworking, then they are likely to be less concerned.

Prior telework experience also appears not to be the prerequisite that it was in the past. Now more organizations are willing to place increased emphasis on an employee's qualifications and aptitude than on their specific prior employment. Also, other issues that have surfaced in the past as inhibiting teleworking, such as legal liability for home accidents and ergonomic issues were hardly mentioned by companies or teleworkers.

Teleworking also may not be the huge barrier to advancement as it once was thought to be. Few teleworkers in the cases thought their promotional opportunities would be restricted by teleworking, and company and organizational officials generally had the same views. Teleworking, at least full-time teleworking, however, still appears to be uncondusive to managing large numbers of office-based employees.¹²

What has been most remarkable across the cases has been the very small number of teleworkers who have cited any drawbacks from teleworking per se. While some teleworkers have been dissatisfied with their compensation levels and benefit packages, only a handful have identified problems which would not exist if they were in a comparable office-setting. These have been as minor as not having the same quality of office equipment or personal comfort levels due to temperature extremes. Most everyone else has been positive or very positive about their teleworking, whether they do it full-time or intermittently. Not one person indicated they definitely intended to stop teleworking.

For many reasons, most companies and teleworkers believe that teleworking will expand in the future. That is perhaps the most important implication of the cases for practice—the trend is definitely toward more companies becoming involved with telework and more positions being held by teleworkers.

VII. POLICY ISSUES AND BEST PRACTICES

Based on our employer research, case studies and the lessons learned during the demonstration phase, several important themes stood out as essential to enabling more persons with disabilities to telework.

12 This may be more than a perception problem. It may be a real problem currently, given the way work is managed hierarchically in most organizations.

What positive policy/practice change(s) occurred at the state or local level as a result of the grant?

Agencies affiliated with our state vocational rehabilitation, the Minneapolis VA and Wisconsin state workers compensation system supported the project and agreed to refer potential teleworker candidates. They provided supplemental funding to assist teleworkers to develop a home computer station and for essential teleworker training. As many of our placed teleworkers were contractors, a group of rehabilitation counselors were interested in helping telework applicants to develop a modified business plan for the teleworker prior to entry into the STRIDE program. They believed a teleworker business plan would assist them to better prepare and educate teleworkers on the costs and responsibilities of having their own small business. This would also help counselors to estimate the total cost of placing a teleworker.

Policy Implications

The conceptual leap to offer telework for many businesses and organizations appears to be less of the issue, now that teleworking is becoming more common. No longer is it a question of responding to “why do this” as it is of “how do we do this?” Although we have yet to move entirely away from the “early adopters” stage of an innovation, many more organizations are now beginning to have at least a handful of teleworkers with disabilities

Our research and practice documented several specific and effective employment models that could be replicated by employers and rehabilitation agencies in order to produce a greater number of job types. Employers would benefit as they would have increased employee job retention and decreased employee recruitment costs. For teleworking by persons with disabilities to be successful, there must be a congruence or positive fit between three elements: employee skills, employer business needs, and specific job tasks. If there is incongruence in this fundamental fit, no amount of assistance will overcome the incongruity. Increased financial support toward the development of various employment models would be beneficial and increase the number of teleworkers with disabilities who can be placed successfully.

One of the placement models focuses specifically on hiring of persons with disabilities into a specific job category such as customer service or computer programming. This model targets a pool of persons with disabilities through a rehabilitation agency or other source. Both the employer and the agency set mutual goals and implement a concerted plan to open up employment opportunities with a specific job category. The employer often has to meet a specific business need such as lowered recruitment costs and employee retention. Customized teleworker screening criteria, testing, training and job supports are developed to ensure there is a 3-way fit among the job, the teleworker and the supervisor. A large amount of employer recruitment and development must occur prior to the start-up. One strategy is to begin as a pilot project in order to adapt the model as needed. Either the agency or the company can be the hiring agent and serve as the employer.

Telework companies that offer virtual staffing solutions are increasing as the voice and web connectivity site technology are improving. No matter what the industry, as long

as there are customers, there will always be an abundance of customer service functions. These companies can draw upon disabled individuals as they are already recruiting non-disabled persons as teleworkers. Some employers may require some work experience onsite before telework is offered. These companies are not only focused on decreasing the occupancy and overhead costs of in-house customer service employees, but also increasing customer coverage on a 24 X 7 global basis. This model draws upon companies that have taken a non-traditional approach to customer service or claims review job functions Virtual call centers operate through phone, email or web site interactions and enable a call center to perform customer service tasks from any location

A third model is based on the prominence of a formal telework program or policy, which was started for general corporate purposes for numerous employees. This model allows persons with disabilities to participate but having a disability is incidental. In most cases, the employee with a disability has transitioned into telework after being employed with the organization.

Each of the telework models has multiple dimensions and the programs have evolved over time. Many have started with a small group or teleworkers with disabilities and become more widespread in teleworker number and geographic distribution. Teleworkers may be hired as contractors or as employees and with a mixed offering of benefits. In addition, it must be remembered that the categories and typologies are based only on the cases identified and researched in this project. It is unknown if these are truly representative of all teleworking programs involving persons with disabilities.

Based on the placement process of STRIDE, the case studies, and our prior experiences, future funds for telework by persons with disabilities should be directed primarily to service provision by third-party organizations and companies. Our rationales for this recommendation are:

1. Third-party organizations have the specialized knowledge about potential teleworkers with disabilities They have established candidate flows and also understand the very different needs of individuals, some of whom wish to be employed full-time to obtain health and other benefits, some of whom wish to earn below \$700 monthly to maintain current SSDI benefits, and some of whom are free to alter their schedules as they have benefits provided by spouses.
2. Third-party organizations should be able to access funds from state and federal government agencies to provide staff time to develop strong employer partnerships and/or programs to find and solidify employer arrangements. Staff may require substantial training to understand the complexities of telework and employer recruitment.
3. Obtaining such funds for workplace accommodations and additional teleworker supports were needs identified by numerous teleworkers in the case studies. Third-party organizations often can provide employment supports, if necessary: job coaching, case management, etc. which can be quite important for individuals who have usually been out of the workforce for between 1-10 years.

4. Some third-party organizations can provide the basic skills (writing and editing, phone etiquette, work simulation), customer service, problem solving, and computer training necessary for a telework position. In the absence of such training, which is rarely provided by a company, the candidate pool will be limited to individuals with recent jobs or higher-skilled individuals.

An alternative would be to allocate funds to employers that then obtain services through contractual agreements with third-party organizations. This is likely to be more expensive, and we do not see how that would be superior in practice to providing the funds directly to third-party organizations.

As the experience suggests, telecommunications infrastructure was a critical component for teleworkers. Federal and local workforce programs should consider allocating more resources for startup technology costs for teleworkers with disabilities. The proper arrangement for cost assumption needs to be settled so as to promote employer interest without creating undue burdens or barriers for teleworkers

Funding should be available for all individuals who wish to become teleworkers. We see no justification for restricting assistance only to a certain group such as individuals who may require less inexpensive assistance, or those who may require more intensive and more costly assistance, or individuals seeking certain types of telework positions. While a greater number of entry-level individuals with mild disabilities might be assisted, due to less intensive training and decreased financial supports, the needs of returning servicemen or individuals with more severe disabilities may be more acute. While there appears to be a greater need and desire among employers to target entry-level positions (customer service, word processing, scheduling) for telework, persons with disabilities who have stronger credentials in information technology and research currently have few options at present for pursuing telework.

Because of the differences in program objectives and participating teleworkers, it is inappropriate to view any one of the models as being superior to the others. All types of options should exist, in fact, so that different candidates can achieve their respective employment goals.

The potential of teleworking for individuals with disabilities is beginning to be realized. With appropriate financial assistance, many more individuals with disabilities could enter productive teleworking employment positions. Teleworking for persons with disabilities is increasingly a viable option that helps individuals, employers, and society in an evolving employment marketplace. Whether it is for disabled veterans looking to earn additional income or attain a sense of accomplishment, or a business or state agency looking to offer a more flexible work environment, telework has the potential to make the working world work better for individuals and employers alike.

As a result of this grant's financial support, what additional supports have been leveraged, to the advantage of serving teleworkers with disabilities?

The rehabilitation vendors provided additional funds to support each teleworker's vocational path. On average, approximately \$1200 to \$1700 of financial support was provided per teleworker. In addition, public agencies provided funds for the teleworker

computer and phone installation. It is noted here that the training and support costs of vocational rehabilitation were higher than the average \$1500 - \$2000 cost per person for the rehabilitation system.

In addition job coaches who were already employed by the two participating agencies, MRC and UW Stout, were utilized as supports to assist teleworkers with job retention.

What do you feel are the most important practices that came out of your grant program?

It is important to assess the full picture of benefits and disadvantages for individual teleworkers. Many individuals have had long periods of unemployment, suffer from low self esteem, have fatigue and stamina constraints, do not possess fundamental job skills, possess unrealistic employment expectations, and require assistance and support as they re-enter the workforce. Teleworkers were concerned about jeopardizing their current medical benefits, as they had few other medical insurance options.

Individual teleworker assessment is critical as it can provide a full picture of teleworker motivation, remote learning style, family issues, stamina and fatigue issues and other factors. Teleworkers must also be cognizant of technology start-up costs, technological malfunctions, and unpredictable hours and income. Telework, even though considered an entry-level job for this project, can be a highly stressful job and may not necessarily be an ideal alternative for those who have difficulty with work-related stress and self discipline. Teleworker evaluations will help to ensure that telework is a good fit, not only for the employer but also for the teleworker with a disability

A training approach that allows teleworkers to become thoroughly acquainted about employer expectations and desired skills was critical to assist their success in job acquisition and retention. Training was essential to familiarize candidates to educate about the realities of telework and to update skills. Participants may have had numerous failures with their re-entry attempts into the workforce, and come with the expectation that telework jobs are more lenient and require traits that may be less demanding than those for equivalent positions at a traditional worksite. Ironically, call agent jobs require discipline, schedule adherence and good customer relations. These conditions may pose more stress for teleworkers than expected. Potential job seekers received increased one-to-one support in building their communications and computer skills needed for remote work.

It is essential that the rehabilitation agency responsible for telework placement has designated staff responsible for developing strong relationships with committed telework employers. Rehabilitation staff needs to have an in-depth understanding of telework, not only for the teleworker with a disability, but also for the employer perspective. It is important to ensure that teleworkers, rehabilitation agency, and vocational rehabilitation specialist staff have understanding about the wide range of wage and pay options so they could create a job situation that best fits teleworker needs.

Increased staff support may be needed through the teleworker placement process and up to 6 months post placement. Employer development also requires numerous company contacts and adequate time to establish working relationships with human resources and

company managers. At least 6 months of consistent employer development was needed in order to procure participating employers. Consistent and targeted communications with the employer greatly increased the chances for teleworker success. Before proceeding with telework, the roles and financial supports offered by the involved parties should be defined clearly. Several of the our participating companies assigned a company liaison to work with the telework coordinators to ensure candidates were placed successfully

It was beneficial to establish a contingency plan and technology fund to avert unexpected costs and overcome barriers unique to telework. As part of our contingency plan, we set aside additional funds to utilize job coaches if teleworkers were having job difficulties after placement. This provided staffing support in order to increase our overall job retention rate.

Teleworkers were employed as contractors and therefore accrued additional business expenses in comparison to expenses of a traditional employee. Many teleworkers were classified as low income and did not have additional funds to support the business. A Technology Fund supported teleworkers during their first 3 months of employment with ongoing costs of establishing their own business. For example, the majority of teleworkers did not have the extra funds to establish a business banking account, or pay for ongoing Internet and phone costs. A large majority were living Teleworkers experienced unexpected emergencies such as housing eviction, phone service debt, hard drive breakdown, and incompatibility with telecommunication providers.

What were the key lessons learned?

The national employer survey and demonstration sites documented that specific types of job functions were more conducive to either part time or full time telework. For general employee populations, telework job functions were prevalent in the areas of office tasks, research and analysis, administrative, customer service or call center, technicians, programming, claims review, medical transcription and dispatching. Teleworkers with disabilities also were employed in most of the job functions listed above, although many were in isolated situations or scattered through the organization. The largest pools of job tasks were found through call center and customer service functions. One employment agency placed teleworkers with disabilities into programming positions with various employers.

Employers identified that a specific set of teleworker skills are needed in order to be successful. Employers reported that only employees with certain types of jobs were allowed to telework because it was difficult to fit the appropriate job task to telework. Still, when asked about hiring a new teleworker with a disability, the majority of respondents indicated that this depended upon the fit of job tasks to telework. Employers were more likely to move existing employees with disabilities into telework, due to their familiarity with the employee's performance and knowledge of the job. For entry-level jobs with high employee turnover, employers were often more receptive to considering new hires as teleworkers.

The employer business model and organizational conditions must support the overall use of telework. Telework opportunities for persons with disabilities may be related to broader and more pervasive employer management, technology, and organizational cultures that support teleworkers. Telework may be utilized by only a handful of

employees at the start, but as the number of remote workers grows, employers indicated that company-wide supports had been recommended to encourage and manage telework. Employers that merely provide a laptop and telecommunications to employees will pose certain risks to an employer and require additional preparation. If teleworkers have “employee” status, and are governed by internal company policies, then issues arise in regard to safety, liability, employee selection criteria, technology use, data security, and federal employment law. If supervisors lack the tools and guidelines to manage these remote workers, they increase the risks to both the employer and to the teleworker.

Opportunities for future telework employment would rely heavily on the ability to identify “telework friendly” companies that are willing to implement the infrastructure to support other types of job functions, in addition to customer service. Sufficient staff time is needed to recruit employers and develop employer partnerships. To ease in the transition to telework, strong collaboration was critical among the employer, teleworker, placement agency and the referring agencies. STRIDE collaborated with Arise and United Way 211 through a memo of agreement that clearly specified employer and agency roles. The majority of potential telework jobs would most likely be focused on finding the pockets of jobs in which there is higher employee turnover.

Project STRIDE encountered a number of anticipated and unanticipated barriers, some of which seemed to be hindering broader adoption of telework.

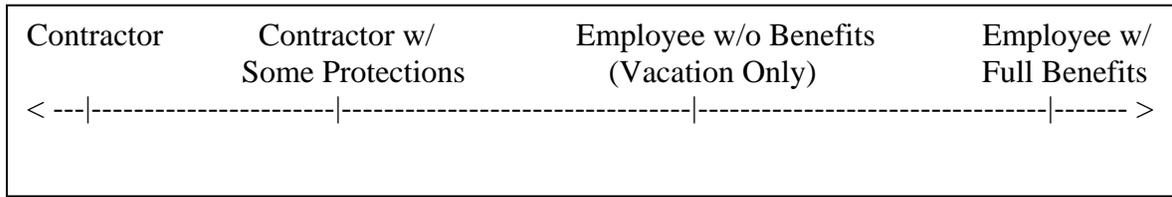
While telework is an innovative solution for non-traditional employees, it does not fit everyone’s needs. Indeed, individuals drawn to telework often faced additional barriers beyond means of transportation or access to communication technology. Of the 72 individuals who were initially interested in telework, 38 successfully met the employer eligibility, enabling them to enter the corporate telework training. As teleworkers continued in the program, some decided they were not interested in telework; some found telework too challenging, experienced fatigue, stamina or surgery complications with their disabilities or did not respond to telework coordinators’ communication efforts. Despite appropriate teleworker job qualifications, telework can be extremely taxing both physically and mentally for disabled applicants who have been out of the work force. Individuals are facing a new type of employment as well if they are contractors and responsible for their own small business. There is much more responsibility for the teleworker to take initiative and problem solve. These conditions raised more stress for potential teleworkers than expected.

For teleworkers with disabilities who already have health benefits or some other sources of aid, telework positions provided supplemental income through part-time work, without jeopardizing existing and needed medical benefits and social security disability income. The positions were especially appropriate for persons with disabilities who could only work part-time due to chronic and changing illnesses with fatigue, stamina and pain challenges. Telework for many of the participants enabled them to be productive and remain a part of the work force.

Employers and rehabilitation agencies need to heed overall job market conditions. The availability of jobs and jobs with benefits was an underlying theme in many of the responses to the open-ended questions. This factor is often overlooked in analyses of telework for persons with disabilities. In a recession, employers are seeking ways to cut costs. One method to reduce staffing cost is by increasing the number of contractors, which in turn may reduce benefit and occupancy costs. When employers are actively

seeking a larger workforce, they will frequently consider different and more innovative arrangements such as telework to expand the labor pool.

There was a spectrum of employment options that varied between an independent contractor to traditional employment, which offered a full array of benefits typical of other businesses. For instance, on one end companies such as Arise interact with teleworkers as independent contractors who assume risks as any private businessperson might. On the other end of the spectrum, traditional call centers directly employ teleworkers with full benefits. Other employers fall in between the two extremes in which some characteristics of conventional employers – such as offering health benefits, while at the same time offering only part-time work, without the opportunity for paid overtime.



The situation was slightly different with United Way 211 where the teleworkers were temporary employees of MRC. The United Way then contracted with MRC to utilize those individuals, which provided them with a steadier base of income. In neither situation, however, were medical benefits provided. Many teleworkers worked 20 to 25 hours per week in order to maintain their health to a better degree.

Employers are advised to address manager and supervisor resistance. If telework fulfills a strong business need, such as decreasing employee turnover or retention of above average employee talent, the employer may be more likely to adopt this employment solution. Some barriers include the manager’s perceived ability to monitor performance as well as issues with fairness in employee selection.

What were you unable to accomplish as a result of the lack of funding available beyond the third year of the grant?

We would have implemented a more comprehensive e-training class experience in order to better train teleworkers who were participating remotely in the training session. We did not have the much-needed advanced technology capacity to offer web-based training with audio discussion.

We were unable to search for and develop other potential telework employers due to lack of staff time. We were also interested in finding an employer that offered health benefits to teleworkers and hired candidates who would have “employee” status.

Sustainability

Adequate staff time devoted to telework placement greatly affects the sustainability of a telework program. For example, in Wisconsin, the telework coordinator will continue to work part time with telework applicants and several of the employers on a part-time basis. This staff person will screen and refer applicants, assisting them to complete the

web site testing and follow-through. Teleworker placement will be funded through the state of Wisconsin rehabilitation agency on a fee-for-Service basis. We will continue to work with two main employers: Arise and SERVICE 800, as they have more job openings and opportunities.

The Minnesota site will be open to individual referrals with disabilities that have the aptitude and skills to independently apply for positions with the two employers listed above. Any additional financial assistance would be provided by the rehabilitation services division or Veterans Administration. As there is no funding to support a complete telework program with customized training, telework coordinators will evaluate telework job readiness through vocational evaluations provided by the MRC agency and make contacts with the employers on appropriate candidates.

Program enhancement would only be accomplished through another grant or funding source that could supplement the underlying costs of new employer involvement, teleworker training and placement.

Stakeholders and Building Collaborative Relationships

Strong employer collaborations with Arise, United Way 211, and SERVICE 800 were critical as the employers made extra efforts to communicate and ensure the training and employment processes were successful. Our teleworker retention rate was 87%, which was due to the extra support provided to teleworkers and telework coordinators. For example, Arise has over 5000 call agents dispersed through the United States and devoted a special liaison to help our agency and clients succeed.

Project STRIDE demonstrated that more widespread adoption and implementation of certain telework concepts is possible if Workforce Centers, VA and state workers compensation agencies participate as full partners. For our project these agencies provided funding for teleworker job readiness training, home office set-up (computer and phone), and some job coaching. Our referral agency involvement also involved educating rehabilitation counselors about general telework practices and also having an employer involved in the training. Training group size was 10 to 15 persons, which allowed ample interaction with the employer and enabled a sufficient question and answer period. Rehabilitation counselors expressed an interest in exploring more types of telework job opportunities, in addition to the call agent contractor positions.

Dissemination of Products and Information

The MRC site developed a 20-hour short course of customized Teleworker Training. Curriculum was geared to assisting potential teleworker applicants to gain aptitude in applying for customer service positions and in building their computer skills as well.

Describe the products developed and other types of information that have been actively disseminated, how they were disseminated, who received the information, and how many people received the information.

VIII. CONCLUSIONS AND NEXT STEPS

Project STRIDE demonstrated that telework could be useful for many persons with disabilities, especially for those who already have health benefits in place. For such teleworkers these positions provided supplemental income through part-time work, without jeopardizing existing and needed medical benefits and social security disability income. The positions were especially appropriate for persons with disabilities who could only work part-time due to chronic and changing illnesses with fatigue, stamina and pain challenges. Telework for many of the participants enabled them to be productive and remain a part of the work force

To gain perspective on the potential of future public policy toward telework, stress on congested commuter freeways, prepare for pandemic threats, and take advantage of new technology, telework-friendly policies have gained support among a broad array of public officials and policymakers. As the rest of the country continues to struggle with similar challenges – and as public policy searches for a means of returning disabled individuals to the workforce, telework can serve as an attractive option.

Appendix A

STRIDE CASE STUDIES

Prepared For:

*The Office of Disability Employment Policy
U.S. Department of Labor*

Prepared By:

*Project Staff of
Strategic Telework Research on Innovative Disability Employment (STRIDE)*

December 2007

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Introduction

A series of case studies involving teleworking by persons with disabilities was prepared for two primary reasons:

- To obtain qualitative information that would illustrate the organizational dynamics of teleworking for individual employees and employers;
- To illustrate that despite challenges, both employers and employees have benefited from teleworking by people with disabilities.

The majority of employers were drawn from the national survey conducted by STRIDE at the beginning of the project period. Several additional employers were selected by project staff based upon public information obtained during the project period or by contacting employers known to have teleworkers with disabilities.

Selection criteria included employers (1) with at least three teleworkers with disabilities; (2) with projects which appeared to be innovative or unique; and (3) with a willingness to provide information.¹³ Many of the employers also allow telework by newly hired people with disabilities. Organizations were contacted to explain the overall purpose of the STRIDE project, the reasons for the case studies, and the case study process. About half of the employers contacted agreed to participate.

Once an employer had agreed to participate, research staff interviewed teleworkers with disabilities, an organizational representative with responsibility for telework, and frequently supervisors of teleworkers. Usually the research staff first interviewed the organizational representative with responsibility for telework. That person then provided the names and contact information for the teleworkers and supervisors. Research project staff contacted each of those individuals about their participation, with all individuals promised anonymity.

Interviews were conducted by telephone and via written survey instruments that were clarified by follow-up telephone conversations, when needed. Separate sets of questions were prepared for teleworkers, supervisors, and organizational representatives, although there was substantial overlap and a core set of questions across the three sets.

For instance, the employer questions solicited information on:

¹³ Prior to starting the case study process, up to two cases had been tentatively reserved for projects in which telework by persons with disabilities had ceased. Despite contacting several employers, no employer agreed to share information about the termination of their teleworking initiative.

- Current status of teleworking in the company or organization (number of teleworkers, types of jobs, telework schedules, etc.)
- Need or problem being addressed by telework and its history (when and why it was started, key implementation items such as training, etc.)
- Results to date for the employer or organization (primary advantages and benefits, disadvantages, unintended consequences, etc.)
- Teleworkers' performances (assessment of productivity, absenteeism and turnover, types of measures used, supervisory and co-worker issues, recruitment and career progression impacts, new employees who telework, etc.)
- Future of teleworking for the employer and for other employers and organizations (likelihood of changes in number of teleworkers, suggestions to other employers, strategies and approaches by governments to increase teleworking in society, etc.)

Teleworkers' questions and supervisors' questions covered the same general topics although there were differences in the number of questions under each category. Each person interviewed was sent a draft of information they had provided to research staff. Interviewees were asked to review, comment, and alter any material in the draft which she or he felt was incorrect or had been misinterpreted. In most instances, everyone saw not only what they had provided but also the entire draft case. Employers were able to identify proprietary information to be deleted. That did not materially affect any of the case descriptions.

The case studies were prepared with a strong emphasis on their educational value for other employers. From the STRIDE research team's experience, most employers are interested in learning about what works or doesn't work from their counterparts. Therefore, the cases were generally framed to assist employers in understanding the appropriate conditions under which telework will be beneficial for both employers and persons with disabilities. To ensure that the case descriptions would be read by professional human resource staffs, business owners, and people with disabilities, all but two of the cases were limited to a maximum of 10 pages in length. One case was extended because of its importance nationally as a mechanism for working with employers in, and a second case was increased in length due to its involvement with STRIDE placements. Cases were prepared at various times during calendar years 2006 and 2007.

Teleworking in United Way's 211 System

1.

Overview--United Way 211

The Greater Twin Cities United Way in Minnesota contracts with a large non-profit agency (Minnesota Resource Center) to provide information to callers in the community who are seeking assistance with food, housing, medical, legal and crisis issues. The non-profit agency serves as the employer for eight teleworkers with disabilities, who work from home between 5 pm and 8 am. The program began 11 years ago, and all positions were newly created for the 8 teleworkers, who now work 20 hours per week on average. The results and experiences to date should be of interest primarily to communities that have or will have 211 and 311 systems, as well as to companies considering development of teleworking through a contractual relationship.

I. Need or Problem Being Addressed

The Greater Twin Cities United Way, a non-profit agency, provides 24-hour call center responses to citizens in need for a regional 7-county area including Minneapolis/St. Paul, Minnesota. This confidential and free service provides referrals to appropriate community resources such as health, legal, transportation, counseling, youth services, childcare, food and housing organizations.

The current 211 Service evolved from an earlier program called First Call to Help, which was a mutual partnership between United Way and the Minnesota Resource Center, a non-profit vocational rehabilitation agency. In 1993, there were about out 50,000 calls per year to First Call to Help. While that volume could be handled adequately by the United Way's call center staff, few staff were willing to work second or third shifts, holidays, or weekends. Because of a desire to provide more effective services during those times, and because the Minnesota Resource Center wished to create telework positions for persons with disabilities, a project was started with funding through Hennepin County.

Although it was not principally a business decision at the outset, the partnership now responds to more than 400,000 in bound calls annually. United Way contracts annually with the Minnesota Resource Center (MRC) to manage teleworkers through a contract for after-hours and weekend call services. The overall call center budget is approximately \$1.4 million per year, with 90% of the funds from United Way. United Way regularly prices out the contract to see if a competitor could efficiently provide and afford this service.

II. Current Teleworking Status

Eight teleworkers with disabilities, six women and two men between the ages of 30 and 70, provide services from their homes during evening and early morning hours. The

teleworkers are classified as temporary employees of the Minnesota Resource Center (MRC). They work no more than 20 hours per week and are ineligible for medical and other benefits. Most teleworkers are on Social Security Disability Income and have a cap on how much additional income they can earn per month. The call center employment helps to supplement their public income.

Teleworkers are selected jointly by the MRC project manager with input from the United Way 211 supervisor. Most of the candidates are from the MRC “pool” of individuals seeking work and are individuals with some type of disability which precludes a full-time position. Candidates must have computer skills and good communication skills. Some individuals receive employment preparatory training and computer orientation training. All new hires are required to train initially for 30-40 hours during the day about subject matter content (housing, public assistance, indigent health options, etc.) and the 211 system at the United Way call center. During this paid training period, new hires also listen to actual calls for assistance and periodically receive updated training. All teleworkers are supervised by the MRC project manager, who also has a disability and had previous call center experience.

Many of the current teleworkers have fatigue and stamina issues. Otherwise, there have been few disability accommodations, except for some ergonomic adjustments. For instance equipment was adapted for one teleworker with cerebral palsy to improve ease of movement within his house. For another individual, MRC provided a walk-around telephone, a computer, and an extra phone line for DSL in addition to paying the monthly cost of about \$60. For a husband-wife team of teleworkers, MRC supplied a computer and two phone lines. Under terms of the contract, all equipment and technology costs are MRC’s responsibility.

Each teleworker has a flexible schedule by day and by shift. A typical schedule is four to six hours per day with some shifts extending to 8 hours and others being only two hours. All work is performed between the hours of 5 pm and 8 am. Teleworker schedules are set a month in advance by their supervisor but some swapping of hours and days are permissible as long as the total number of hours (40 over two-week period) is not exceeded.

In addition to basic computer and employment preparatory skills, the home-based teleworkers must have an Internet search, service orientation, be resourceful and self-disciplined, without being too compassionate. Because some callers are in difficult personal situations, teleworkers must be able to provide assistance in a timely manner without becoming overly involved with any caller, which would detract from assisting other callers. In essence, they are not counselors; they refer individuals to needed community resources.

III. Results

In general, there is agreement among all parties (employees, supervisor, and employer) that the program has worked well in the past and is working well currently. As expected, however, each party has somewhat different perspectives.

Employee Perspectives

Joe and Mary, a husband-wife team of teleworkers, is able to flex their schedule, when the other spouse may need to rest or take a day off to manage disability symptoms. Joe has arthritis, diabetes and pulmonary disease and in 1997, he began to use a wheelchair. Mary had been a nurse and because of lupus, could no longer handle the physical work. The telework jobs help this spousal team to better maintain their health, control their fatigue symptoms and stay out of office buildings, which are ripe with cold and flu viruses. Mary and Joe don't miss having co-workers: when they were in jobs with co-workers their health status was always at risk and vulnerable to the illnesses of others around them.

Debbie, another teleworker, has bad knees which prevent her from sitting or standing for long periods of time. With the home-bound position, she can use her walk-around phone and vary her routine. One of her previous positions had been phone sales, a position which she disliked because of its intrusive nature. Because of the service and responsive orientations of 211, and because of the position's independence and working conditions, Mary is quite satisfied with her current telework position. The downsides are the lack of benefits, no employment career path, and limited face-to-face interaction.

The evening and night shift teleworkers, and their MRC supervisor, met face-to-face for lunch every 3 months to discuss challenges and receive short-term training. That face-to-face interaction has become less frequent. Now, teleworkers interact with co-teleworkers primarily by phone to inform others that they have signed on and there is coverage.

“One day, everyone will work from home. It is cheaper and helps many individuals work who could not do it.”

211 Teleworker

Supervisor Perspectives

Although he has an overall positive assessment of telework, the MRC supervisor noted that special attention must be given to announcing changes in policies and procedures, which cannot be communicated as well via email as in person.

Another area of concern is how teleworker performance is assessed. For individual teleworkers, such factors as number of calls per hour, number of complaints, average call length, and average time between calls are used. Several of these factors, however, are uncontrollable by teleworkers and others do not take into account the complexity of incoming requests. For these reasons, the performance process is less than ideal according to the supervisor. In addition, the software is not entirely reliable which has caused monitoring problems and introduced uncertainty about coverage by teleworkers who are shown not to be working, when in fact, they did. Also sometimes there is a glitch in either the communications software or the database which prevents coverage. When that happens, callers are directed to an answering machine, and responses are provided during daytime hours.

In terms of absenteeism and turnover of teleworkers, there is no doubt about performance. Last year one person left after it was discovered broadband was unavailable in his neighborhood. And one other person quit. Other than that, there has been no turnover, and absenteeism has been minimal in recent years.

211 Employer Perspectives

While satisfied generally with current partnership, given the available funding, the 211 system will be required to pass a call center accreditation process in order to continue providing services. Because of this, it is anticipated that a variety of improvements and changes will be needed within the next two years to meet the new standards. Both technology and human resource components will be affected.

Currently there is no technology available to record calls of the remote teleworkers. While there have been few complaints about the assistance provided, without the ability to record and monitor calls, United Way has no consistent method for ensuring quality control or of rectifying any problems when inadequate assistance is provided. Presently, only the number of calls answered can be documented for each of the remote teleworkers, an approach considered unsatisfactory. A lower than anticipated number of responses to calls could be due to a low number of inbound calls, intermittent coverage by the teleworkers, or problems in accessing the 211 server--three very different reasons which would require different responses by management.

In addition to technology issues, the nature of the skills needed by the teleworkers is changing. Simple referrals to organizations still occur but are less frequent. Instead of answering a phone and locating the nearest service, teleworkers are now being confronted with more complicated situations. These require the teleworker to have more knowledge of social services, better search skills to identify potential services, and more advanced problem-solving and crisis management skills.

The employer, supervisor, and teleworkers all agreed that the 211 system worked extraordinarily well during the Hurricane Katrina period. Staff received 10 times the normal number of calls during that time and performed exceptionally well in meeting

callers' needs and in their reaction times. Employees not only needed to work at least double their normal hours, in some cases they needed to go to the main 211 call center. It proved to be a gratifying experience and one that they are all proud of.

IV. Future

The accreditation process to become a certified call center and referral system will bring a number of significant challenges in 2006 and 2007. To ensure faster, more numerous, and higher quality responses to more complex caller situations, changes will be needed to improve the system, within the availability of resources for this social service system.

Possible changes include:

- Installing a new phone system and new technology, including better web-based applications to maintain teleworker cost advantage over in-house call services;
- Upgrading teleworker skills through more and customized online training or adding other teleworkers with more advanced skills; and
- Expanding the current regional 211 system to new geographical areas throughout Minnesota.

V. Lessons Learned

Based on the experiences to date with the United Way 211 system, a number of key items stand out as strategies to enable more persons with disabilities to telework:

- Implement training or work experiences to ensure teleworker is job ready
- Provide telework job try-out experiences on a temporary basis
- Ensure that job supports are in place to assist teleworkers to succeed

For teleworkers with disabilities who already have health benefits, these 211 positions provide supplemental income through part-time work, without jeopardizing existing and needed medical benefits and social security disability income. The positions are especially appropriate for persons with disabilities who can only work part-time due to chronic and changing illnesses with fatigue, stamina and pain challenges. Telework for many of the 211 representatives enables them to be productive and remain a part of the work world.

Also the 211 experience suggests that the telecommunications infrastructure is a critical component for remote teleworkers. There are still problems with some call center data software, and this has interfered with service delivery by introducing an element of distrust/uncertainty into the tracking and monitoring process. If at all possible, employers should make sure their software allows for goals to be easily measured and to yield data

for accurate tracking and measurements. This is an essential element of a remote service delivery process, especially in the absence of a listening in/call monitoring feature.

Because of the importance of an adequate infrastructure for off-site teleworking by persons with disabilities, federal and local workforce programs should consider allocating more resources for start-up technology costs. This would enable more remote teleworkers with disabilities to be engaged in 211-type teleworker positions. Because the United Way 211 service is currently the only one with teleworkers with disabilities in the nation, it can truly serve as a model for other systems, both now and in the next few years.

***LIFT—A Human Resource Service for
Information Technology Teleworkers***

I. History and Overview of LIFT

LIFT is a non-profit organization which places highly skilled persons with disabilities with employers seeking information technology expertise. The organization began 31 years ago through the efforts of former executives at IBM and another computer firm who decided to help a friend's son with a disability obtain an information technology (IT) position. Their friend's son had been unsuccessful in obtaining employment despite having strong IT credentials.

LIFT works with individuals who have physical disabilities only and makes placements with employers throughout the country. ¹⁴ Geography does play a role in placements, however, as all teleworkers generally are expected to work at least one day each week on-site. ¹⁵ Nearly all of the teleworkers are new hires for employers, although LIFT has been involved in several instances in which an individual was a company employee, became disabled, and then started teleworking because of his/her disability.

A highly selective evaluative process, as well as the intensity of training restricts the number of individuals who can be placed. In the past 25 years, 218 teleworkers have been placed, and about 95% are still working. Most of the others have retired. Of those still working, about 90% remain with their original employer. Demographically, about 65% of the individuals placed are men, and the average age at placement is between 25 and 35 years of age. All individuals work full-time.

II. Placements

There are four main phases in LIFT's placement process.

I. Evaluation of candidates

LIFT receives between 20 and 100 applicants per week from state vocational rehabilitation agencies, non-profit rehabilitation providers, and the Social Security Ticket to Work program. The majority of applicants come from Ticket to Work. ¹⁶

Individuals with cognitive or emotional disabilities are not accepted, only individuals with physical disabilities. Every major type of physical disability has been encountered, with the most common disabilities having been:

¹⁴ LIFT has made many placements in New York/New Jersey, Research Triangle Park in North Carolina, Chicago, Silicon Valley, and California more generally.

¹⁵ This is the expectation at the beginning of placements but schedules may change once an individual is placed, as occurred with Teleworker C, whose schedule is described later in this case.

¹⁶ LIFT is paid by the rehabilitation agencies, Social Security Ticket to Work, or other referring organization, and receives no payments based directly or indirectly on the applicant's salary. Additional revenues come from training fees involving employers. Currently LIFT has two full-time employees and several part-time consulting specialists.

- Quadriplegia
- Paraplegia
- Muscular Dystrophy
- Blindness (various diagnoses)
- Deafness
- Cerebral Palsy
- Multiple Sclerosis
- Amputees
- Other orthopedic disabilities
- Other neurological disabilities

While there are 20-100 applicants per week, most individuals withdraw their applications after learning what is expected of applicants in the way of skills, testing, commitment, and references. Of every 100 applicants, about 5 remain at the end of phase I.

II. Training

This phase entails matching an applicant's training and aptitude to a company's specific position requirements. Training is totally customized for each situation. Most training is oriented to the teleworker, with more than 800 information technology courses being offered online. Courses about "e-learning" and "e-working" also are provided. Online mentoring is available 24-7.

As appropriate, LIFT staff provide corporate education about managing a teleworker, accommodating an employee's disabilities, and working with a colleague off-site. According to LIFT staff, many employers are aware of teleworking and even have teleworkers with minor or short-term disabilities, but few have had experiences in accommodating teleworkers with severe disabilities, which involve new challenges. 17 In those situations, there is a need for training which will adapt expectations about a teleworker and personalize the teleworker's environment.

Typically, training will be conducted for 4 days a week at the applicant's home and the 5th day at the company. There is wide variation in the length of the training phase--from one week to six months. Because of the differences in time and due to the customized nature of training in each placement, there is no typical cost of training per teleworker.

More than 90% of the applicants, who start, complete this phase.

III. Contractual Employee Phase

Each individual then becomes a contractual employee of LIFT, working with the assigned employer for a one-year period. The majority of current clients are Fortune 500

17 The cost of accommodations has ranged from next to nothing to as high as \$18,000. LIFT finds that accommodations currently rarely exceed \$600.

companies, not medium-sized or small private employers, or government employers. (Please see Appendix A for a list of employers.)

An individual's salary, as paid by LIFT, is determined by the employer, based on the individual's qualifications and what the client pays for someone in that job title. Five common job titles are:

- Application programmer
- Software engineer
- Systems analyst
- Technical support specialist
- Technical writer

The average annual salary is approximately \$60,000, although there is considerable variation. Beginning and middle manager information technology salaries in government agencies and smaller private firms are significantly lower than those of major corporations. (LIFT staff have found that most of their applicants are highly motivated by compensation levels.) In addition, LIFT provides workers' compensation, unemployment insurance, and a barebones, health benefit plan during this year.

Except for a small number of individuals who realized they were "hot commodities" because of their particular skill sets, all placements in this phase move on to the final phase.

IV. Employer Phase

In the final phase, the IT professional transitions from being a LIFT employee to becoming a company employee. One of the major incentives for individuals is to participate in the employer's health benefit plan, which in all cases has been far superior to that which can be provided by LIFT or nearly any other small employer.

Once this phase has been reached, the employer has a highly skilled professional who has been pre-screened and trained for a specific position within their organization. The individual also has worked 12 months on tasks for them before becoming a permanent hire.

In addition, the company has an employee who, based on LIFT placement experiences, is likely to be:

- creative, having thought outside the box because of his/her disability, and who therefore often can provide unique solutions;
- loyal and unlikely to leave voluntarily.

Below are profiles and views of three teleworkers and perspectives from the supervisor of a teleworker placed by LIFT.

III. Profile— Teleworker A

This individual, approximately 50 years of age and with a master's degree in economics, has been a telework programmer for 16 years with his current employer. Prior to his current employment arrangement, he had not been a telecommuter. When he was hired in 1990, the company incurred expenses of approximately \$10,000 in setting up his telecommuting workstation. Seven years ago the company converted all IT employees to laptops. The company paid approximately \$500 for an additional laptop dock for him to use at home which effectively replaced the original, outdated workstation. His continuing costs are only for a broadband connection.

He is a full-time employee who works in the company's office on Tuesday and Thursday and teleworks Monday, Wednesday, and Friday. While his schedule is fixed, he alters it as necessary because of staff meetings or for a meeting with his supervisor. Due to personal assistant support, he teleworks generally from his residence but also has worked at his parents' home. Whenever he is teleworking, he has daily contact via phone or email with his supervisor. Teleworker A believes that his supervisor views teleworking neutrally, although it requires no more supervisory time than overseeing office-based employees.

“I began by working in one section of my bedroom on a long flat desk we set up which allowed for all my equipment and materials to be very easily accessible. I now have more room and was able to have an office set up in a separate room physically tailored to my situation. Being in a wheelchair, my home office is at least if not more productive than my work office because of the set up.”

Teleworker A feels that his work output (quantity and quality) is about the same whether he works at his residence or his office. One aspect he is able to perform better is off-hours support. Because transportation and personal care assistance are limiting factors, he would not have been able to get into the office during off-hours to provide the same level of support as his peers early in his career without teleworking. His availability allowed him to gain the respect of his supervisors and co-workers early on. While he appreciates his company's accommodations and expects to continue teleworking, he cites a few drawbacks: reduced social interaction (not being in the loop at times, which is becoming more important to him), an expanded workday at times, and possibly an impact on his advancement. While he has supervised non-teleworkers and has been able to advance as well or better than others in the company, because of the size of his department and nature of the company he believes further advancement may be more difficult with his current teleworking schedule because he would need to be on-site more for meetings and direct user contact.

Despite these drawbacks, Teleworker A is satisfied with teleworking because it is more convenient for him. Also telework has been one aspect of his overall positive employment experience at the company, which he says has always treated him well. Because of this positive experience, Teleworker A says he is less likely to consider employment opportunities elsewhere.

Based on his experiences, he believes the most important characteristics of a successful teleworker are discipline, dedication, and a strong work ethic. For someone who may have been out of the workforce for a while, those characteristics may need to be re-learned. Also, because of his experience in being a teleworker as a new hire, he believes that teleworking by some new employees, particularly those in the information technology industry, is appropriate. For a new employee with a severe disability that requires significant time for personal care in preparation for work, Teleworker A feels teleworking can be a tremendous advantage by not requiring commuting time to be added to an already long schedule.

1.1.

IV. Profile—Supervisor A

This supervisor has 30 staff members who build and maintain custom software to support a national membership organization in the telecommunications field. One of her staff has a disability and teleworks on a scheduled basis. For other IT staff (computer programmers, systems analysts, or project managers) there is no formal telework policy, although staff members occasionally telework. Each request for telework is evaluated based on individual circumstances. All teleworkers work at their homes.

The one individual who works formally as a teleworker does so to ease the physical burden caused by his commute. He is able to work full-time, which the supervisor considers a benefit to him and to the company. Special software which cost approximately \$5000 was installed on the disabled teleworker's home workstation.¹⁸ No additional costs are incurred currently for this teleworker or the occasional teleworkers, as all teleworkers can access employer software from their work desktop or a shared server. No training about teleworking was required as the individual had teleworked for another employer. The supervisor also has teleworked and considers that experience positively.

While there had been concerns prior to teleworking about the impact on communication and also the ability to manage remotely all teleworkers, those concerns have not

¹⁸ The initial \$5000 cost would not be duplicated today if another teleworker was hired. The current technology used by the company would cost no more for that employee to work at home today than to work in the office. According to the supervisor, aside from special technology for special disabilities, the costs of telecommuting have become zero for the company.

materialized. The supervisor believes that teleworkers' productivity and job performances are at least comparable to non-teleworkers' performances:

“There really has been no loss of productivity, and in fact, given the ability for employees to work when they may otherwise have had to take time off, productivity has probably increased. Also, our customers continue to give us high marks for service, so we believe there has been no reduction in service level.”

She views teleworking positively for other reasons as well. There have not been major communication issues, there is no added supervisory time required of her, external customers have not been affected, and absenteeism and turnover have not increased. She notes that teleworkers have supervised other teleworkers and non-teleworkers without harm and is adamant that there will be no detrimental effects to promotions and career paths from teleworking. She believes teleworking improves the firm's ability to recruit and retain employees, and overall, she is very satisfied with teleworking and hopes it will become more formal and available to additional employees.

To ensure that teleworking yields benefits to an employer, the supervisor suggests:

- Specifying that teleworking days are well-defined in terms of the work that should be accomplished--teleworkers should be managed based on anticipated productivity;
- Defining a preferred communication method and deciding whether the home, cell or work phone number will be used and then setting standards for checking email and phone messages; and
- Defining in advance the degree of flexibility in teleworking schedules (Does the employee need to agree to alter that schedule at any time, which means teleworking schedules cannot be used to guarantee child care arrangements? Or should the schedule be “fixed” to accommodate the teleworker's needs? There is no right or wrong approach but the degree of flexibility should be decided at the beginning of the process.)

Based on her experience, this supervisor would hire another disabled teleworker. The reason she has not is because there have been no openings in recent years. She would not hire any individual, disabled or able-bodied, who wanted to telework every day, however. She believes that application development requires periodic interaction in person and also that being on-site intermittently is necessary to understand a company's culture.

“One of the benefits of the IT area is that it is project and results driven. The life cycle of a project, from analysis to specs, coding, testing and implementation, has fairly well defined estimates for time and resources. Because of this, monitoring employees who work at home is not much different from monitoring employees in the office. Estimates are set and, within certain

parameters, either they are met or they are not met; output should not diminish because someone works at home. On the other hand, that person should not be held to a higher standard simply because he or she works at home.”

1.2. V. Profile— Teleworker B

This teleworker is a full-time programmer who has been with his current employer for three years. Approximately 50 years of age and with a bachelor’s degree, he has teleworked full-time (set schedule, at his home) for the entire three years. Prior to joining his current employer he worked as a teleworker for a large pharmaceutical company for two years, and prior to that, as a teleworker for a large insurance company for 7 years. Because of his previous telework experience, there was no need for training of any kind when he began with his current employer.

Teleworker B has a mobility impairment, and walking requires significant energy. Telecommuting helps reduce his fatigue. He sees no disadvantages for his employer or himself from teleworking. As with many other teleworkers, he believes teleworkers can supervise other teleworkers as well as non-teleworkers. He does not feel that contact with his co-workers suffers or that more communication and coordination problems arise when teleworking. In fact, Teleworker B believes his employer gains from his teleworking in several ways:

- his supervisor spends less supervisory time when he teleworks, than with colleagues in similar position who are not teleworking;
- he is absent less than he would be if he worked entirely in his employer’s office;
- he is less likely to consider employment opportunities elsewhere because of his ability to telework; and
- his productivity (output and quality) are better, in his view, than when he works in the office.

Because Teleworker B believes telework benefits his employer and himself, and because he does not believe his promotional opportunities and career path will be negatively affected, he is very satisfied with his current teleworking arrangement.

Longer-term, Teleworker B sees teleworking expanding and becoming more common at his employer and other employers. During the past six months the company created a separate log-in domain for telecommuters, which has significantly facilitated the telework experience. He also believes his employer has the most secure networking technology

currently available, and when other employers acquire that technology, they will have fewer concerns about having staff work at their homes.

Teleworker B suggests that employees wishing to telework should treat their non-office day as if he/she were going to the office: they should have the same routine and above all, the discipline to work at least as well as if they were at his/her office. For persons with disabilities who have appropriate training and experience, he feels they can be hired as new employees and telework as soon as they begin employment.

“An area of concern specific to employees who have disabilities is that of off-hours support. A home office enhances the support capability of any employee by making travel time generally unnecessary. Because travel is more difficult and time consuming for a disabled employee, support capability is enhanced even more than that of an able-bodied employee. For the individual with severe mobility impairments, late night support, which would be virtually impossible without a home office environment, is even a possibility with the proper setup.”

VI. Profile — Teleworker C

This teleworker is an Accredited IT Specialist and Certified Advance Technical Expert who has worked at major international information technology company for the past 3 years. Teleworker C is 38 years of age and has a bachelor’s degree. Prior to joining this internationally renown corporation, he teleworked and considered it a positive experience. He is mobility impaired and uses a leg brace and walking aids.

Two years ago, senior company managers began consideration of a Work-At-Home initiative for the department in which Teleworker C works. Because of his disability and prior experience with telework, he was a vocal supporter to management about the potential benefits of teleworking. Subsequently, the Work-At-Home plan was implemented.

Teleworker C now is a full-time teleworker who works at his residence every day of the week. As part of the initiative roll-out, the company provided training on teleworking to all employees. The company also pays approximately \$400 annually for broadband connection. Employees have a monthly office team meeting but otherwise do not have face-to-face interaction.

According to Teleworker C, there have been both organizational and personal benefits from implementation of full-time teleworking. He believes the company is receiving more and higher quality output from him and his co-workers. He tends to work longer

hours than before, due to more comfortable surroundings and not having to devote time and effort to commuting. Also, he says he is absent less, and provides output that is equal to or better than before because he has fewer distractions.

“As someone with a disability, not having to go through the routine of equipping myself with a leg brace and walking aids every work day has improved my quality of life. Physical stress associated with traveling to work each day is completely gone by being able to telecommute. And with that physical stress removed, mentally I am more relaxed and tend to dedicate more time to doing my job.”

Because of his ability to telecommute full-time, he says he has a very high opinion of his department—it was high before the location change occurred and now it has become even greater. He reports that working at home has improved his morale and increased his loyalty and commitment to his employer. He says he is less likely to consider positions in other companies. For the company, he believes this improved employee morale and loyalty means higher productivity from employees along with tangible cost savings from downsizing of offices.

There are few negatives from working at home according to Teleworker C. He does not feel additional supervision is necessary for teleworkers compared to office workers. Nor does he believe teleworkers are precluded from being supervisors of other teleworkers or office employees. He does miss personal interaction with co-workers but does not feel isolated as he has very frequent contact, primarily via instant messaging, with his supervisor and co-workers. (The previously noted monthly team meetings also reinforce interactions.) Nonetheless, he has recommended to management that they create a virtual social climate to maintain team social connectivity.

According to Teleworker C, the company’s culture is moving increasingly to virtual teams and because of this, individuals who are successful teleworkers are likely to be rewarded and not penalized in terms of career opportunities. If anything, future promotions, in a company which has more and more departments moving into off-site work environments and in which supervisors support teleworking, will be given increasingly to those who can telework successfully. Teleworker C believes successful teleworkers must be able to focus on important assignments, eliminate distractions, be adept at time management, and establish rules for work-life balance.

Teleworker C is very satisfied with full-time teleworking as it has improved his quality of life, while simultaneously helping his employer. He believes all the tools are currently available for more individuals to participate as teleworkers. There is no doubt in his mind that teleworking can work for new employees with disabilities, and in his view,

government agencies should provide incentives to encourage more companies to create teleworking opportunities for people with disabilities.

“I am glad that my department has come to appreciate the cost savings and employee morale associated with allowing us all to work from home. And I don’t miss the two hour stuck-in-traffic commute.”

VII. Concluding Observations

LIFT offers information technology employers a compelling value proposition: a highly trained, pre-qualified individual who has successfully completed a contractual internship prior to becoming a full-time employee. And LIFT is available both to the company and the employee years after the initial placement if desired. For instance, LIFT redesigned workstations for individuals who had been placed 25 years earlier. A LIFT placement also offers employers a concrete opportunity to combine social responsibility with corporate self-interest through its personnel policy. It is no wonder that the list of employers appears like a who’s who of the Fortune 500. It is also not surprising that many of LIFT’s clients are repeat customers. What is surprising is that LIFT has many more excellent candidates than positions at the present time.

The LIFT model requires a solid commitment and planning effort from both rehabilitation and employer communities. Potential teleworkers must be screened carefully to ensure they are “teleworker-ready” before they are hired by the employer. LIFT conducts ongoing evaluation of teleworkers and guides them to ensure they meet corporate performance standards. The employer advantage is that employer risk in newly hiring a teleworker with a disability is greatly reduced as the person’s performance level is known prior to hiring.

The main problem restricting placements is primarily one of cost, according to LIFT. First, there are many employers whose human resource policy is to fill information technology (IT) positions with lower-paid staff, that is, lower salary rates are a higher corporate priority than a quality IT workforce. Second, the IT environment is changing constantly and some employers would rather hire consultants for specialized tasks, rather than permanent employees. Third, there are simply fewer IT jobs in the United States because of the continued outsourcing of positions to India and elsewhere.

Overcoming corporate imperatives for cost reduction, particularly with a variable cost such as salaries, will not be easy. Those large employers intent on reducing the cost of their human capital are unlikely to be persuaded that long-term, they may be better served

by having a high-quality IT workforce, than a lower cost IT workforce a continent away. Locating employers that are not driven solely by a cost priority will be one key to enhanced placements.

Another key may be to argue that teleworkers represent the best of both worlds: they can reduce an employer's facility costs and improve productivity, without going to the extreme of being so far away geographically that coordination deteriorates and client relations decline. Employers who believe that teleworkers should appear regularly in their offices to ensure coordination and integration with co-workers would be inconsistent if they also allowed inter-continental outsourcing for non-routine IT objectives.

Besides more information technology positions in the US, additional publicity about successful placements, and enhanced awareness of LIFT through business publications, it is unclear what other changes would increase employer demand. No federal or state laws exist presently that inhibit placements. And while tax incentives always are beneficial, any employer that is focused solely on the cost of their IT human capital is unlikely to be convinced that outsourcing and immediate compensation savings are inferior options.

The benefits to persons with disabilities and to employers from LIFT are tangible and long-term. More employers should recognize and take advantage of the unique personnel whom LIFT can present.

Appendix A--LIFT

Employer Placements

Insurance

Aetna Insurance Company
Allstate Insurance Company
AON Corporation
Blue Cross/Blue Shield of Delaware
The Boston Company
Hartford Insurance Group
Metropolitan Life Insurance Company
Mutual of New York
New York Life Insurance Company
Northwestern Mutual Life
Northwestern National Life Insurance Co.
Phoenix Mutual Life Insurance Company
The Prudential Insurance Company
St. Paul Fire and Marine Insurance Co.
Transamerica-Occidental Life
UNUM Group Life & Health

Manufacturing

AT&T
AT&T Information Systems
AT&T Technologies, Inc.
AMAX Corporation
BOC Gases
Gould, Inc.
Honeywell, Inc.
Hughes Aircraft, Inc.
IBM
Inland Steel Company
International Harvester
3M Company
Motorola, Inc.
Polaroid Corporation
Rockwell, International
RCA Corporation
Standard Oil of Indiana
Storage Technology Company
TRW

Banking and Finance

Bank of Boston
Bank of Hawaii
Chem Network Processing Services, Inc.
Continental Bank
Dun & Bradstreet Corporation
Federal Reserve System
First of Denver
First Federal Savings and Loan
First Interstate Services Company
First National Bank of Chicago
Home Federal Savings & Loan Assoc.
Marine Midland Bank, N.A.
Mercantile Trust-M Tech
MGIC Investment Corporation
Morgan Stanley & Co., Inc.
Northern Trust Company
Valley National Bank

Consumer Goods and Other

Abbott Laboratories
Allergan Pharmaceuticals
Amoco Corporation
Ann Taylor, Inc.
Armour Company
Baker & Taylor Books
Colgate Palmolive Company
Dynachem
Educational Testing Service
Ethicon
Ethicon Endosurgery
Jewel Companies, Inc.
Johnson & Johnson
State of Kansas
Kraft Foods
Libby McNeil and Libby
McDonald's Corporation
Montgomery Ward and Company
Moore Business Forms
NECA

Union Oil Company of California
Verizon
Verizon Wireless

Nestle Company, Inc.
Networking & Computing Services
Novartis
Ortho Biotech, Inc.
PepsiCo, Inc.
Quaker Oats Company
Time, Inc.
TWA, Incorporated
United Airlines
Wakefern Food Corporation
Walgreen Company
State of Wisconsin

Source: <http://www.lift-inc.org/clients.html>

A Telework Culture

I. Overview

Since its founding, this information technology corporation has become known internationally. It has sales in excess of \$3 billion annually and continues to expand at a rate of more than 15% annually. It competes with large and medium-sized technology companies in a variety of different market segments.

While the original impetus for remote work at this company came from employees wanting more flexibility in their schedules and work locations, there also was a business need which required non-traditional scheduling--bringing together team members from throughout the world to discuss project tasks. Today, working from home for some part of the work week is common and has become ingrained in its corporate culture. More than 50% of headquarters staff are estimated to work remotely.

Official company-wide data does not exist about the proportion of employees who work remotely or their demographic characteristics, such as gender and age.¹⁹ Nor is information tracked centrally about schedules. According to a company representative, working remotely one day a week is the most common schedule, but many other patterns exist, and there are some individuals who work primarily from home. The predominant offsite location for remote workers is a residence.

Decision-making about working remotely is completely decentralized, and the conditions are determined on a case-by-case basis by a manager and an employee, based on individual and team tasks. Communications with co-workers are emphasized even while working remotely.

A company official said working remotely has not required greater supervisory time or increased absenteeism, although there are no quantitative data available to support this assertion. Teleworking is not viewed as negatively affecting an employee's promotional opportunities or ability to supervise other employees. According to interviews with company teleworkers, the primary disadvantages to date have been with minor glitches in technology and with an expansion of the traditional work day.

The company encourages remote work by reimbursing employees for internet connection fees and cell phone costs. Also, the company has tutorials available for phone and internet meetings as well as setting up a virtual private network.

Two profiles of full-time company employees who work remotely are provided below. Their jobs existed before these individuals began working remotely, and neither of the individuals was hired specifically because of their interest in working remotely. Both employees are deaf.

¹⁹ Because of the decentralized decision-making about teleworking, it is unknown if any employees with disabilities have been hired who began working remotely immediately. Nor is it known if any employees with disabilities working remotely have stopped.

II. Teleworkers' Perspectives

Profile —Teleworker A

Teleworker A is a programmer who has worked at the company for 10 years. He has a bachelor's degree in mathematics and is between 35 and 40 years of age. Because of software limitations, he rarely worked remotely when he first started at the company. Several years ago he began working remotely intermittently and about six months ago, he arranged with his manager to work remotely one day each week. Normally he works a fixed schedule, but he changes the schedule as meetings are required or personal circumstances (vacations, sick days, physician appointments etc.) warrant. Teleworker A, in conjunction with his manager, picked a day which typically was relatively quiet and did not have a meeting which required his presence.

Although there was some reluctance on the part of his manager and that person's manager about Teleworker A working remotely, he requested a schedule change to reduce the time he spent in rush hour traffic and personal stress, along with saving money and maintenance costs for his car. Teleworker A uses VPN, Tarantella, web conference, and IM (all provided by the company) as well as a video relay service from the state's telecommunications agency.²⁰

He discovered that he could do more than 90% of the same work at home as on site, and to date, he is very satisfied with his remote work schedule experience. Not everything has gone smoothly, however. Soon after he began teleworking he realized that some internal websites remained behind the firewall, inaccessible from his home computer. Further, there were several other unanticipated annoyances and surprises:

- Not meeting in person, to use the whiteboards to discuss design or issues in a visual way (e.g., drawing data model diagrams and scenarios);
- Not taking walks or coffee breaks with colleagues;
- Having different software on his desktops at work and his home computer; and
- Having a slower home printer, which is a problem for long documents that often reach 100 pages in length.

Teleworker A still has a problem with some meetings. Because he is new to the video relay service, he finds attending a meeting in person to be more satisfactory as he can see people speaking while watching the interpreters. Moreover, if speakers draw examples and lists on the whiteboard, he prefers seeing that in person.

Teleworker A believes the remote working experience has been beneficial for the company as well as himself. He considers his productivity to be as high as when he is in the office, and his interactions with both co-workers and his manager have not suffered in

²⁰ See the appendix for a more detailed description of VRS in Texas.

his view. This is significant issue as about half of his group's work involves meeting or working together in person. While he is expected to be fairly autonomous in conducting his other tasks, he still has a weekly session with his manager to discuss his workload and activities. He interacts several times a day with co-workers and colleagues via email and more frequently via instant messaging or in person at other times when a new project is beginning or when deadlines occur. 21

While Teleworker A anticipates his own remote work to continue with the same frequency in the future, he believes that teleworking opportunities could become significant for individuals with disabilities, particularly for those in information fields such as software development. Teleworker A believes working remotely is well-suited for individuals who are self-reliant, goal-oriented, semi-autonomous, and proactive. Other practical steps that improve working at home in his view are (1) minimizing distractions by setting clear expectations with family members; (2) having a home computer that matches or surpasses one's work computer, together with the necessary software (VPN, IM, etc.); and (3) planning in advance to perform work on site that is a prerequisite for subsequent work at one's residence.

“I feel empowered that my manager trusts me to work at home when I want to or need to.”

Finally, based on his personal experiences, Teleworker A believes that working remotely could be useful for a new employee with a disability. However, he believes a new employee should work remotely only after he/she becomes acquainted with co-workers, understands the group's work procedures and processes, and determines how to perform the necessary tasks at his/her residence.

1.3.

“The interesting aspect is that my group is split into teams working in different countries. My perspective of these teams in other countries is as if they were working “at home at different parts of the day”; we find and use ways to communicate and share information/ideas, and once in a while we travel and visit each other. if people work in different countries can work on the same project, why not the same for people working in the office and remotely?”

21 Teleworker A believes working remotely will not affect his promotion opportunities as he can perform the same work at home as at his office, and according to him, the company concentrates on outcomes and delivering results, rather than intermediate activities.

1.4.

1.5. Profile —Teleworker B

Teleworker B, a divisional manager, is in his early 40s. He has worked at the company for nearly 10 years and has worked remotely since he began. Before joining the company, he teleworked and his manager now works remotely full-time from her residence. Teleworker B has an agreement with his manager that he may work remotely as frequently as he desires, provided his productivity does not suffer. By his own choice, he limits his remote work to one day a week. The schedule is usually fixed, although he does alter it because of meetings or other unanticipated items which arise.

Teleworker B's primary motivations for working remotely are to reduce stress from his commute and to focus more precisely on assignments. He feels he is able to complete more documentation and solo tasks when working off site. Isolation has been a drawback from working at home, but not to the extent that he believes it will affect his career opportunities. Teleworker B views remote work as an important employment benefit, and he is very satisfied with his current work schedule.

This teleworker believes the company is encouraging remote work and that it will become more prevalent in the future for two reasons: (1) teleworking saves the company money by reducing office space; and (2) more employees will request flexible scheduling if they are forced to live farther away from headquarters. Although remote work will increase at the company in coming years, Teleworker B does not believe it is appropriate for a new employee, with or without a disability, until that new employee has bonded with his or her work group. He does not have a precise time for that bonding process, however, as he feels it will vary according to the individual, the tasks, and work group members.

Teleworker B advises other companies that may be considering telework to identify appropriate positions as the first step. Then the experiences of other companies with substantial telework should be examined in detail. Finally, Teleworker B suggests that a company educate its managers about the potential productivity, morale, and other benefits from allowing employees to work remotely.

III. Concluding Observations

Working remotely is viewed positively by the company's representative and the two employees interviewed. According to all three individuals, telework has proven beneficial to both employees and the company. They feel that employee morale and loyalty are higher because the company is responding to individual employee's needs. And while no quantitative data were available, in most companies higher morale and loyalty lead to reduced absenteeism and fewer resignations.

All three individuals believe that telework at the company is likely to increase in the future. They feel working remotely is especially well-suited to their company's global business communication requirements and its intensive knowledge-based tasks. And the decentralized decision-making process allows managers to determine if remote work will enable employees to meet their goals.

For all these reasons, it is not difficult to understand why telework work has become prevalent at the company. And while remote work addresses some of the company's particular conditions, such as intensive knowledge-work and its international footprint, which do not exist to the same degree in other companies and organizations, the approach could be adapted to numerous other organizations.

Appendix —Video Relay Service

Video Relay Service (VRS) is a nationally-mandated telecommunications service that enables real-time, two-way communication between deaf, hard-of-hearing, and speech-disabled individuals using a videophone, and telephone users. Each state has an initiative through one of its state agencies.

In Texas, a VRS user connects to a Video Interpreter (VI - an interpreter who works for VRS provider), then gives the phone number of a hearing person to the VI. The VI then places the telephone call to the hearing party. The VRS user sees the VI on video conference equipment, and they can see each other and sign to each other if desired. The VI talks via voice to the hearing party. The VI serves as the key link in relaying the conversation back and forth between the parties. A voice telephone user also is able to initiate a VRS call by calling a VRS center, usually through a toll-free number.

VRS is a popular service because the conversation between the VRS user and the VI flows much more quickly than with a text-based TRS call. In addition a VI is able to express the mood of both parties, interpret the mood of the hearing person in sign language, and voice the mood of a signing person, which are not possible with text-based relay service. Consequently, VRS is much more like a normal telephone conversation in which the emotions of each party are readily identified by inflections of the voice. Like all TRS calls, VRS is free to the caller.

See: <http://www.puc.state.tx.us/relay/relay/vrelay.cfm>

***Telework Arizona:
A State Government Innovation***

2.

I. Overview of Arizona State Government's Telework Program

The State of Arizona is one of the pioneers in telecommuting and telework. Nearly 18 years ago, state government began a pilot project in conjunction with AT&T to determine the feasibility of telecommuting as a trip reduction strategy. Based on positive results from that pilot, a formal telecommuting program began in 1993 through executive order. In 1996, the Governor mandated a telecommuting program for all major state departments, and subsequent governors have reinforced that program through new executive orders. The current goal is a minimum 20% participation rate among full-time, state employees in Maricopa County, which encompasses Phoenix and most of the state workforce. That goal has been achieved with more than 4,200 teleworkers identified in the latest reporting period. ²²

Conditional upon management approval, any state employee may telework, at any frequency. In reality, most employees telework one or two days a week at their residences. Before an employee may telework, he/she must complete an 11-item survey to determine his/her suitability for telework. ²³ Most state employees (83% in a survey of the workforce) believe their job tasks can be performed via telecommuting, and currently there is a wide variety of jobs which are undertaken through telework: research and analysis, programming, administrative functions, technical analysis, claims review, medical transcription, and call center activities.

Because of the importance of telework to many employees, they often are willing to use their own equipment when departments and agencies are unable to provide computers and cell phones to employees. Some departments do loan equipment to employees to use at their residences. Others take advantage of a statewide nonprofit program of donated computers, which have been refurbished and then loaned to employees who otherwise could not telework.

Training for successful telework is considered essential in the State of Arizona. According to a state official, both teleworker training and supervisor training are required to participate and they undergo training together. Supervisors and teleworkers participate in several exercises which help them anticipate what it will be like to work apart from the office one or more days a week. These exercises help them identify and resolve potential complications before they become problems. Understandings reached during these training sessions become part of a formal teleworking agreement which is signed before teleworking begins.

²² Note that this information about teleworking pertains to all state teleworkers. The State of Arizona does not compile data on state employees with disabilities who telework.

²³ That questionnaire is available at the following link:
<http://www.teleworkarizona.com/telefiles/assess.asp>

II. Benefits of Teleworking for State Department and State Employees

Research and data collection have been an integral part and guide for the state's telecommuting program since its inception. Arizona utilized an outside evaluator for a large assessment of its early telework activities, and results from that assessment continue to support the effort. Surveys still are used whenever a new agency begins its telework initiative.

Over the years, such surveys have shown consistently that after a start-up period of six months, nearly all teleworkers and a large majority of their supervisors believe there is increased productivity from telework. The increased productivity is due to fewer interruptions and distractions, the ability of employees to work at peak performance times, and reduced stress from commuting. It was found also that telecommuting employees work more effectively and perhaps harder—so that they will be able to continue teleworking. ²⁴ For employees, there were benefits of improved morale and a more positive attitude toward their jobs, because of their ability to control some aspect of their work schedule.

Other beneficial outcomes have been identified:

- Supervisors have become more focused on accomplishments, which often requires more communication between themselves and their employees about expectations, itself a positive activity;
- Increased communication about goals has reduced the amount of necessary supervisory time; ²⁵
- There have been no discernible differences among those who telework and those who do not in their rate of promotions, although there could be many reasons for this finding;
- Very few employees--only 11% of all teleworkers in the large evaluation--felt they were missing important workplace information when they teleworked, a result which is probably due to the predominant schedule of being away from their offices only one or two days a week; and
- A relatively small percentage of co-workers (one in four) who do not telework believe that teleworkers makes their job more difficult, perhaps because supervisors and teleworkers have training exercises dealing with the burden of telework on co-workers.

²⁴ Ninety-two percent of the teleworkers and seventy-two percent of the non-teleworkers disagreed with the statement that they would get less work done if they worked from home part of the time.

²⁵ Only 24% of non-teleworkers, presumably mostly supervisors, believed that it takes more time to supervise a teleworker.

While the large majority of telework experiences in Arizona have been positive and nearly 20% of a large and diverse workforce is a notable accomplishment, there is still resistance and limitations placed on the number of teleworkers by some supervisors and senior level managers. Not everyone can telework, and right now, only one in five state employees actually does work off-site even for a limited amount of their work week. Nevertheless, state officials are very satisfied with the progress they have made, their current teleworking initiative, and future prospects.

III. Teleworker Profiles

This administrator has an extensive history with telecommuting. He worked previously for the State of Arizona, resigned, and then 11 years later in 2005, was rehired as the statewide director of an administrative office. With a disability since childhood (juvenile rheumatoid arthritis--JRA), upon his rehiring, this person started telecommuting extensively--upwards of 80% of his time. Currently he telecommutes one or two days per week. His weekly schedule varies due to a significant number of meetings outside the office, which occur because of his administrative responsibilities, training offsite, and personal, but job-related volunteer service on boards of several nonprofits and Governor's Councils.

Telecommuting is a major convenience for this administrator because of difficulties he has in utilizing the Phoenix metro bus system from his home. The most convenient transportation option for him is leaving his house early in the morning to catch an express service bus. Because of the time required to become ready for work, however, that transportation option is unavailable on a regular basis. His second transportation option, leaving at a later time, forces him to use a couple of local (non-express) busses and requires transfers.

Because of his disability, Teleworker A has need for personal assistant care and frequent breaks throughout the day. Physical accommodations at his state office include power door openers, desk alterations, a trackball mouse, and Dragon voice recognition software. Because he worked primarily from his house for 11 years before taking his current position, and because of his extensive telecommuting experience, no accommodations were needed or implemented by the State of Arizona at his house.

Teleworker A believes that telecommuting not only is much more convenient but that it enhances his efficiency. By working at home, he need not go through the extensive preparation of readying himself for work or spending time on the actual commuting. He believes also that telecommuting would be beneficial for a new state employee with a disability if telework would help the individual accomplish his/her job tasks and if telework was an appropriate accommodation.

In coming years, Teleworker A thinks that there is likely to be further expansion of telecommuting within state agencies, particularly as the cost of fuel continues to escalate.

Although the formal telecommuting program has been in effect since 1993, it is still viewed as something quite new. And while many upper and mid-level managers telework, few entry level workers, and the bulk of the state's workforce, telecommute. This leaves a large pool of potential telecommuters in coming years.

Supervisor B

This individual supervises 20 staff professionals involved in state and federal judicial proceedings. One of the supervisor's staff professionals is a full-time employee, who telecommutes part-time. This employee requested teleworking only after she was diagnosed with her disability, and she requested it as a reasonable accommodation under the ADA. How frequently she teleworks depends on the circumstances of her disability. Some weeks she does not telework at all. Some weeks she teleworks four days. The telecommuter, who performs legal research, always works at home. No physical or telecommunications accommodations were required as necessary computer equipment was in place prior to the initiation of telecommuting.

Results to date have been satisfactory. According to the telecommuter supervisor, she has remained productive. She does miss out on some normal office social interaction, and according to the supervisor, telecommuting requires that their communication be more extensive than with his employees who do not telecommute. Also, even though telecommuting is necessary to perform her job, there has been some jealousy from co-workers.

Supervisor B does not believe that teleworking will affect promotional opportunities or the career path of this individual. However, because telecommuting has been discouraged generally by superiors, for the foreseeable future, the one telecommuter may be the only person in this office who will be authorized to telecommute.

Teleworker C

This employee has been performing research and analysis for about 9 years with a state government agency. Trained as a lawyer, he began teleworking five years ago once his department initiated teleworking after one of the gubernatorial directives. His employing agency did not incur any costs in setting up his home telework environment, and the telework training he received was mostly devoted to rules and policy review, and in his view, unnecessary. Currently, he works at home a few days each month on a flexible schedule.

His motivations for telecommuting are primarily personal: to save time and avoid the commutes. Telework has proved beneficial for his convenience and has not detracted from his work performance. He believes his work output and work quality are the same regardless of where he works. He feels telecommuting has not changed much of anything about his job—his job commitment, absences due to sickness, impacts on co-workers, and interactions with his supervisor have been unaffected. And despite placing a high

value on social interaction with co-workers and colleagues, he does not feel that intermittent telecommuting has reduced his job satisfaction.

While his own supervisor views telecommuting negatively, Teleworker C believes supervisory time is no different when overseeing telecommuters or office employees performing the same functions. In addition, he believes telecommuters probably can supervise other telecommuters as well as office workers. Overall, he is satisfied with his telecommuting arrangement and does not believe his career opportunities will be impeded by telecommuting.

According to this teleworker, telecommuting is likely to increase somewhat in coming years because the Phoenix commuting situation is becoming worse for him and other state employees. He feels that a new state employee with a disability could telework satisfactorily, provided this employee could work without supervision. Working independently is the most important characteristic of a successful teleworker, according to this employee.

IV. Next Steps in Arizona

Because of the positive experiences over the past decade with teleworking and the support for the program from different governors in both political parties, it is likely that telework will be used more aggressively by state agencies as a business strategy to attract and retain qualified employees. According to a state official with detailed knowledge of the program, that expansion may be quite pronounced in coming years as leaders and senior officials of departments and agencies recognize the strategic value of telework. Most new teleworking is likely to occur from adoption of telecommuting by existing employees in mid-level job titles. A small number of new telecommuting positions may occur with new employees and at entry-level ranks. There will also be future positions that are virtual, that is positions which are full-time telework.

Most of the impetus for expansion of telecommuting will be due to the state's need to attract and retain employees and be facilitated by technological improvements and a worsening of commuting conditions for state employees. Yet increased telecommuting for other purposes also may be a factor. For example, the Arizona Department of Administration in October 2006 incorporated telework as one pandemic planning strategy. All divisions were asked to identify their critical function employees and then lead them to internal websites where employees negotiated telework agreements with their supervisors, received instructions on available remote connectivity services, and performed their critical business functions from home as a test of emergency planning.

Within the context of a general increase in telecommuting, state officials believe that employees with disabilities who telework will increase also. Some growth will occur because the state workforce is likely to include more persons with disabilities due to Phoenix's tight labor market, and the state's continuing need for qualified employees as Arizona's population expands. To increase significantly the number of employees with

disabilities who telework, however, may require a new initiative. One option would be for State agencies to work with organizations and companies that assist employees with disabilities with employment issues. One official indicated that state agencies are likely to hire more employees with disabilities in a telecommuting position (part-time) if they had a larger pool of trained applicants, more refined placement services, and possibly short-term job supports.

Arizona's progress has been quite remarkable not only for a state entity but for any type of organization. And they share freely their information about what has worked and what has not, including step-by-step suggestions for designing and implementing various stages of a telework program. Officials in other states and organizations have access to extensive practical information on the state's excellent website. See <http://www.teleworkarizona.com/Handbook/prototype.htm> or the home page of the website: <http://www.teleworkarizona.com/>

Disabled Teleworker Case Vignettes

I. Introduction

Not all organizations could be developed into full case studies for a variety of reasons. In the course of contacting organizations for possible case studies, a number of organizations were identified which deserve to be profiled. Several of those organizations are described below. Subsequently, information is provided about teleworking in specific federal departments and agencies. While this information was collected several years ago, it is unlikely that major changes have occurred in either the incidence of teleworking or the ranking of departments and agencies.

II. Organizations

Working Solutions, a 10-year-old call-services company based in Plano, Texas, employs between 2,000 and 5,000 agents, depending upon the season. All agents work as independent contractors. Because of such factors as job flexibility for agents and the company's selection and training process, employee turnover is extremely limited—less than two percent according to a senior company executive. Some agents are persons with disabilities.

<http://www.workingsol.com/home.htm>

Alpine Access, a 9-year old company based in Denver, utilizes home-based call agents, all of whom are company employees. Publicly announced client partners for Alpine Access include Office Depot, J.Crew, 1-800-Flowers, and the Internal Revenue Service. One of the primary advantages cited by the company is its access to quality employees from throughout the country, and they identify a number of previously untapped labor pools from which they draw applicants:

- At-home parents
- Retirees
- People with physical disabilities
- Veterans/military
- Residents in rural areas

According to company information, their calling agents are more highly trained and experienced than those of other calling firms with approximately 80% of their agents having some college background and on average, having between 15 and 20 years of experience. Full-time agents receive medical, dental, vision, and matching 401(k) benefits while part-time employees receives pro rata benefits. Individuals may be promoted from agents to team leaders, coaches, account managers, and so forth while continuing to work from home.

Approximately 2% to 3% of all applicants ultimately become employees, a percentage which will prevent a large number of persons with disabilities from becoming home-based agents.

<http://www.alpineaccess.com/external/index.html>

Return to Work began as a disability advocacy group in 1998. In recent years it has focused increasingly on injured soldiers returning home from combat in Iraq and Afghanistan. Return to Work (R2W) now provides evaluation, training, placement and supported employment, and service learning for active duty members. Individuals located in Colorado and Florida receive services in-person while individuals located elsewhere are provided services virtually. In 2006, R2W received an anonymous grant of more than \$1 million to support its services to the US Army Community Based Health Care Organization (CBHCO) and to other military service members returning from Iraq and Afghanistan.

Persons with disabilities unrelated to combat also receive services. According to information provided by the founder and president of R2W, the organization has won multiple state and federal contracts to provide vocational rehabilitation services. Their services benefit from advanced, web-based technologies which have been donated by companies, for instance an elaborate case management system.

Everyone (counselors, job developers, and other staff) at R2W works from home via the Internet, often using free video chat methods to provide services. For example, several cases in Colorado are being handled by a counselor in rural New York via telephone, e-mail, and video chatting. According to material provided by the president of R2W, they have found the video chat technique to be particularly effective in improving relationships and enabling counselors to isolate issues needing early attention.

Some of R2W's staff are themselves disabled teleworkers. R2W also has arranged for persons with disabilities to telework. One such individual is a webmaster for a nursing home. <http://www.return2work.org/>

III. Teleworking in Federal Government Departments

All federal government departments and agencies were surveyed about teleworking in 2004 by the U.S. Office of Personnel Management. Question 9 on the 2004 OPM Telework Survey was:

Please answer the following question concerning disability and medical conditions:

- a. Number of employees using telework as a reasonable accommodation for a qualified disability? _____

b. Number of employees using telework as an accommodation for a temporary disability or temporary medical reasons? _____

Based on the responses to question 9a. there were 699 disabled federal teleworkers at that time. This number of disabled federal teleworkers represented about one-half of one percent of all federal teleworkers (140,694). An additional 3,300 federal teleworkers had temporary disabilities or medical conditions. That number represented 2.34% of all federal teleworkers. The combined number of permanent and temporarily disabled federal teleworkers comprised approximately 2.85% of all federal teleworkers in 2004.

The distribution of disabled teleworkers varies significantly across departments and agencies. Many agencies had no permanently disabled teleworkers at that time, whereas nearly 10% of Federal Trade Commission teleworkers were disabled.

Table A shows the ranking, in descending order, by proportion of disabled teleworking employees in departments and agencies. Besides the Federal Trade Commission, at least 1% of teleworkers were disabled in seven other federal entities:

- U.S. Nuclear Waste Technical Review Board
- Access Board
- Federal Reserve
- Commodities Futures Trading Commission
- Department of Energy
- Department of Education
- Pension Benefit Guaranty Corporation

Four other agencies, NASA, SEC, HUD, and Agriculture were immediately below them in terms of their percentages.

Table B shows the ranking, in descending order, by the absolute number of disabled teleworking employees in departments and agencies. There were more than 100 disabled teleworking employees in both the Treasury Department and the Department of Defense. Departments and agencies with more than 20 disabled teleworking employees included:

- Health and Human Services
- Agriculture
- Justice
- Social Security Administration
- Education
- Interior

Table A.**Ranking of Departments and Agencies by Proportion of Disabled Teleworkers**

Department/Agency	Number of Eligible Employees	Total Number of Teleworkers	# of Employees Using Telework for TEMPORARY MEDICAL Reasons	# of Employees Using Telework for a Disability	Disabled Teleworkers as % of Agency Teleworkers
Federal Trade Commission	815	31	2	3	9.7%
U.S. Nuclear Waste Technical Review Board	16	15	1	1	6.7%
Access Board	24	19	3	1	5.3%
Board of Governors, Federal Reserve	49	49	2	2	4.1%
Commodity Futures Trading Commission	500	50	4	1	2.0%
Equal Employment Opportunity Commission	1,692	727	26	13	1.8%
Department of Energy	12,468	1,246	121	17	1.4%
Department of Education	3,859	1,576	99	20	1.3%
Pension Benefit Guaranty Corporation	516	192	3	2	1.0%
National Aeronautics and Space Administration	17,058	1,186	101	11	0.9%
Securities and Exchange Commission	3,883	648	25	6	0.9%

Department/Agency	Number of Eligible Employees	Total Number of Teleworkers	# of Employees Using Telework for TEMPORARY MEDICAL Reasons	# of Employees Using Telework for a Disability	Disabled Teleworkers as % of Agency Teleworkers
Department of Housing and Urban Development	7,168	1,088	3	10	0.9%
Department of Agriculture	71,034	4,066	252	36	0.9%
Farm Credit Administration	287	128	1	1	0.8%
Department of Defense	183,844	21,318	649	147	0.7%
Department of Treasury	100,439	29,362	704	198	0.7%
Department of Health and Human Services	59,654	11,331	275	72	0.6%
Small Business Administration	3,323	328	4	2	0.6%
National Archives and Records Administration	1,767	170	0	1	0.6%
Department of Interior	31,548	3,580	192	20	0.6%
Social Security Administration	10,628	4,441	76	23	0.5%
Court Services and Offender Supervision Agency	1,016	205	7	1	0.5%
National Labor Relations Board	1,319	447	15	2	0.4%
Environmental Protection Agency	12,894	3,585	70	16	0.4%

Department/Agency	Number of Eligible Employees	Total Number of Teleworkers	# of Employees Using Telework for TEMPORARY MEDICAL Reasons	# of Employees Using Telework for a Disability	Disabled Teleworkers as % of Agency Teleworkers
Office of Personnel Management	2,803	1,910	40	8	0.4%
Nuclear Regulatory Commission	3,138	789	26	3	0.4%
Department of Transportation	26,445	3,553	92	13	0.4%
Department of Homeland Security	38,573	1,938	59	7	0.4%
Department of State	1,240	1,019	3	3	0.3%
General Services Administration	11,219	2,874	47	5	0.2%
Department of Justice	46,127	18,604	159	31	0.2%
Department of Labor	15,649	7,845	26	13	0.2%
Federal Communications Commission	1,969	634	8	1	0.2%
Department of Commerce	24,779	9,627	104	9	0.1%

Table B.**Ranking of Departments and Agencies by Absolute Number of Disabled Teleworkers**

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Federal Communications Commission	1,969	634	8	1	0.2%

SERVICE 800's Home-based Customer Service Representatives

I. Introduction

SERVICE 800 was founded in 1989 to help service organizations measure the quality of the services they deliver. Generally SERVICE 800 is engaged by companies that wish to collect data from customers about the services they have been provided by the company's representatives. Data on customer satisfaction are typically obtained shortly after customers are provided services.

SERVICE 800 has offices in London, England and Minneapolis, Minnesota. The large majority of the company's employees are customer service representatives. All such representatives work from their homes. Indeed, when the company was founded, one of the guiding principles was to provide employment for mothers who wished to stay home and work. Currently, approximately 200 service representatives work from their homes, 20 hours per week, a minimum of four hours per day. 26

Each customer service representative must have computer knowledge, telephone skills, and an electronic set-up with a high speed internet connection, a personal home computer (Windows XP), a virus protection program and firewall, a separate dedicated voice phone land line (no VOIP or cell), an approved long distance provider, and a quiet work space. Representatives are responsible for their own set-up, provided they meet the company's specifications. SERVICE 800 reimburses representatives for phone calls.²⁷

SERVICE 800 has a formal recruiting and selection process. Candidates who pass a set of initial minimum requirements are then selected by a recruiting coordinator. Nearly all new representatives then receive training about process and procedures, probing techniques, adherence to scripts, phone etiquette, and so forth. The company considers this training essential for effective performance by the customer representatives.

Because all representatives work from their homes, SERVICE 800 has achieved significant cost savings from not having a large infrastructure. Another major benefit, according to a senior company official, has been the loyalty and commitment of customer representatives—turnover is low and some representatives have been with the company for 10 years. The company takes pride as well in knowing that their approach allows individuals unable to leave their homes to become employed again.

SERVICE 800 has significant challenges as well with having a workforce that is almost entirely off-site. The two primary challenges has been (a) communication with the customer representatives and (b) supervision of the representatives. The latter has been especially challenging.

Communication is addressed by encouraging networking among the representatives,

26 Some representatives work as much as 40 hours per week, and some who normally work 20 hours per week actually have longer hours during peak calling periods and when filling in for others who are on vacation. Nonetheless, the general work schedule is 20 hours per week

27 SERVICE 800 provides a competitive wage structure and a 401K program for service representatives.

conducting regular telephone and web-based meetings among team members, and generally promoting a “we are family” philosophy. There are four calling teams in North America, each with 40 representatives. A team meeting typically will cover a variety of topics such as reviewing process and procedures, submitting telephone bills for reimbursement, discussing unique problems related to a calling program, introducing new members, and making personal Announcements such as an engagement or birth of a child. Minutes for these meetings are distributed among participants.

Besides these team meetings, customer representatives are encouraged to contact their supervisors/team leads as often as they find it necessary via email or phone call. Further, supervisors and team leads are responsible for sending a daily message to their teams. These messages usually contain work available for the day or specific work direction for the team to follow that day and a “thought for the day” with some inspiring phrase or message.

Monitoring and oversight of the representatives, according to the company, is a work in progress. Everyone is required to log into a website to start work and to log off when she is done. These records must match the hours the customer representative reports. ²⁸ Data regarding the representatives’ interviews are monitored through a web-based application. The company currently has the ability to see how many attempts are made and interviews completed by a representative for different time periods (per hour, per day, per week). Quotas per se are not established, although there are expectations about how many interviews a representative should conduct for a specific client program.

In addition, many of the representatives are required to record every interview conducted but this has proven ineffective due to some incompatibilities from instant messaging programs and screen savers. SERVICE 800 is currently working on a VOIP solution that will allow all calling resources to record every interview they conduct.

With this company and job-related information as background, it is now time to describe the perspectives of several individual customer service representatives. Five current customer representatives have disabilities, and all of them were hired, as all customer representatives are, as new employees who work at home. Four representatives provided information and perspectives about their telework experiences.

Profile--Teleworker A

This teleworker has been in her position for approximately 18 months. She works 20 hours a week, including weekends, and it is rarely the same times each day. Her schedule is entirely her choice. She had no prior experience with telework, yet her four hours of training at the SERVICE 800 office were sufficient in her view. She is middle-age and a high school graduate with some additional formal education.

Teleworking not only provides Teleworker A with the flexibility she needs for her

²⁸ SERVICE 800 also has a web-based application which documents actual time worked.

working and personal life, teleworking is the sole reason she is able to work. She has serious pain issues due to lower back problems which prevent her from sitting for more than 30 minutes at a time. Teleworking allows her to work from her bed with a laptop computer and table so she is able to lie back when necessary. Before her back problems intensified, she worked a couple of jobs in normal settings. Then her part-time jobs became too stressful physically. When she found employment with Service 800 she was thrilled:

It filled my needs on nearly ever level, monetarily, physically and I knew it would be a job I would enjoy. I'm lucky enough to still be able to do a job out in the "real world" once a week so I do get to interact with others. Service 800 has been a life saver on many levels I don't know how I would survive without the money and the pride I feel everyday knowing I do something with value.

On days when she works, she always is in contact with her supervisor, usually via email. Isolation is not an issue for her as she also has contact with colleagues via email when she works, and participates in the monthly team meetings.

She takes pride in being good at her job. She believes the most important characteristics of a successful teleworker are:

- Keeping focused
- Meeting deadlines
- Enjoying one's job

From her perspective, there are no drawbacks from telework, and she is very satisfied with her current employment situation. She is certain that she will continue teleworking in coming years.

She strongly believes that persons with disabilities can be hired successfully as a new employee who teleworks. Also she feels that teleworkers can supervise other teleworkers. (She has no experience with teleworkers supervising non-teleworkers.)

More generally, Teleworker A cites her company's history as demonstrating that home-based employment can work:

“Our company is a perfect example of anyone, disabled or not, being able to work from home. It's how the company started.”

Profile--Teleworker B

This teleworker has been a SERVICE 800 employee for about 10 years and concentrates primarily on quality control checking, while performing limited customer service. Teleworker B, who has some junior college education and training as a medical secretary, had never worked at home or in a teleworking situation before being hired, at the age of

46, by SERVICE 800. Training for her position at SERVICE 800 consisted principally of on-site calling role-playing with a trained person listening and making suggestions.

She works 20 hours per week, but her schedule is flexible both in the days of the week and in the hours she works each day. She spent between \$1500 and \$2000 on a phone line, computer, software, and printer to create her home office, and she spends \$25 monthly for a high speed connection.

Her experience with teleworking has been quite positive. Working at home allows her to be in control of the fatigue and stamina associated with her MS. She can quit working when her hands or eyes are not functioning well and rest when too fatigued. While the lack of interaction with co-workers is a disadvantage, that type of interaction is not a high priority for her in terms of job satisfaction. In addition, whenever she works she has interaction via email with co-workers, and there are newsletters, picnics, regular teleconferences, and the annual Christmas party which promote interaction.

“I feel good about being able to earn money and feel productive.”

Teleworker B’s view, based on her 10 years at SERVICE 800, is that home-based employment will become increasingly common in the future. She believes that there will be enhanced technology and also an increasing number of individuals will want to work from their homes. Teleworkers, in her opinion, can supervise other teleworkers, and persons with disabilities can telework at the outset of their employment. She believes the most important characteristics of a successful teleworker are listening skills, honesty in one’s work schedule, and accuracy in recording comments in customer service tasks. Those characteristics can be as common with new employees as with employees with more experience.

Because she is satisfied with her teleworking, does not think her promotional possibilities are diminished by teleworking, and appreciates being able to work, she says she is less likely to consider job opportunities elsewhere. She intends to continue teleworking for the foreseeable future.

“There are alternatives for stay at home moms or the disabled to consider for employment opportunities. SERVICE 800 is a great company to work for.”

To help other individuals with disabilities who would like to telework, Teleworker B suggested the creation of a special website that would be restricted to persons with disabilities.

Profile--Teleworker C

This visually-impaired teleworker has been performing customer service work for SERVICE 800 for two years. She is part-time and has a very flexible schedule, which allows her to work in the mornings while a child is in school and also for her to take afternoon classes at a local school for the blind. Approaching 40 years of age and with a

two-year college degree, Teleworker C lost her vision in 2004. Her home-based work enables her to pick her own hours, work with the public, and work in a setting without having to hire a driver for transportation.

The hiring process was relatively easy and quick, even though she had not ever teleworked previously. She applied for a position with SERVICE 800, and after being selected, spent an hour role-playing which served as her training. One-time worksite accommodations expenses for a computer and Jaws software were provided by the state services for the blind agency. Her only continuing expenses are for a monthly cable modem internet charge.

Teleworker C's experiences have been very positive. She receives high marks from the SERVICE 800 quality department, has been invited by a large local healthcare company which recognized her customer service representative skills, and has served as a mentor/trainer to another representative who was blind. She attributes much of her success to her home-based environment:

“I am more focused at home. When I worked for (large company) I was talking to other co-workers a lot. I still performed my job duties, but I feel I am 100 percent focused working from home. I don't have distractions.”

She communicates daily via email and telephone with her supervisor. She has no contact with co-workers except during the monthly team meetings.

If offered another position with another company, Teleworker C said she would try that out. However, she would continue to work for SERVICE 800.

Teleworker C feels that working from home does not present obstacles to being a supervisor of others. And she has no hesitation in recommending that persons with disabilities start out teleworking as new employee. To Telework C, the most important characteristics of a successful teleworker are:

- Patience
- Kindness
- Understanding
- Willingness to perform to the best of one's ability.

Teleworker C is extremely satisfied with her current position:

“I would like to state that this has been the very best opportunity for me. Being disabled was hard to accept at first, but once I put my mind to it, I proved to myself that even though I am disabled, I can work. Jobs are very limited in my area. This job has taught me I can do anything. I truly love my job with SERVICE 800.”

Profile--Teleworker D

This 64-year old teleworker began 10 years ago with SERVICE 800. She had worked for 15 years previously in customer service, although finding the SERVICE 800 position required nearly a year as few firms were hiring people who could work only in their homes. Teleworker D is unable to work in an office, being chemically sensitive and having an environmental illness. Her formal education includes a high school diploma.

Teleworker D is required to work at least 20 hours per week, and she has chosen to work a fairly regular schedule of four hours everyday, Monday through Friday. Each morning she logs in and then logs out when she is finished in the afternoon. If any problems occur she contacts her supervisor by email or telephone. That has occurred very rarely, however. She spent approximately \$1,000 for a computer and a headset for her phone and pays monthly for high speed internet connections.

Because all employees are home-based, they reside in different locations around the world, and because of the nature of the job tasks, Teleworker D has minimal contact with co-workers: only a monthly call with her calling team and supervisor, as well as an annual picnic and a Christmas party in December. Teleworker D does not view this lack of interaction as a serious drawback, however, as she prefers working independently.

Her primary motivations for teleworking are to have a job and be a self-sufficient and productive individual. She believes that she is well suited to being a successful teleworker, because such individuals need to be self-motivated and self-disciplined as well as having a pleasant phone voice, good communication skills, and a quiet location devoid of distractions.

While teleworking is fine for her, she believes that it may not be appropriate for all people or for all new employees at other companies. She feels it would depend upon what the company requires of the employee and what skills the particular employee possesses.

Teleworker D is very satisfied with her telework position and plans on working for years to come. She says:

“It provided an income, made me feel like a productive person, and kept me in touch with the outside world... I am 64 years old. I plan on working until the day I am no longer here on this earth.”

The Home-Based Culture

SERVICE 800 is a fairly unique company. The company was designed to provide home-based customer service employees, management are very satisfied with the results to date, and their plan is to expand the number of home-based employees whenever their workload requires additional personnel. Because of the home-based culture at SERVICE800, the experiences of its representatives are quite atypical of situations

nationwide. With management fully supporting home-based employment, there are no supervisors who are lukewarm about telework. Nor are there issues with promotions and career paths being affected negatively by teleworking--teleworkers have been promoted to supervisory positions and some supervisors telework.

Company management believes that teleworking will become more common in the future. They have noted that increasing numbers of individuals possess the tools and equipment, including a home office, to work remotely. More individuals, particularly stay-at-home mothers, and persons with disabilities are seeking part-time employment as well. Because a larger pool of individuals now have the tools and capabilities of working, and there are improvements in the technology of measuring the performance of remote workers, the company believes teleworking will be expanding. Tax relief would be an incentive to employ more persons with disabilities as customer service representatives, according to a company official. Even so, according to this same official:

“Teleworkers are the way of doing business for SERVICE 800.”

***Arise's Certified Professional
Teleworking Model
(Parts A & B)***

This expanded case was developed at two different times in the STRIDE project. Part A was prepared in late fall 2006 and focused on presenting information about Arise Virtual Solutions and from individual teleworkers who had been working with Arise. Part B, a second set of interviews, was conducted approximately 12 months later with individuals who were recruited, selected, and trained by the Minnesota Resource Center (MRC or Resource, Inc.) in conjunction with Arise. The second set of interviews enabled the STRIDE staff to probe further about training issues, obtain information about the recruitment and selection priorities of Arise, and secure information from individuals who had participated in STRIDE activities.

Part A

I. Overview—Arise Virtual Solutions, Inc.

Arise Virtual Solutions, Inc., formerly WillowCSN, (now Arise) is the leading provider of virtual call center services in North America. The company contracts with large- and medium-sized corporations and associations to provide customer service call center services, utilizing service representatives called certified professionals, who perform work in their homes. In late 2006, Arise had approximately 3,200 agents, with plans to increase that number to more than 10,000 in coming years. In late 2006, Arise added 12 new major clients.

The virtual contract call center model provides a number of advantages for clients. First, traditional call centers have higher overhead costs because of building and real estate expenses. Second, traditional call centers have difficulty providing consistently good services for peak load periods and at atypical hours (late evening and very early morning) because of employees' reluctance to work short shifts and to travel at night. (About four of every ten Arise corporate clients want 7-day per week, 24-per day coverage.) Third, turnover at traditional call centers normally is quite high, leading to inconsistent service and increased recruitment, selection, and training costs.

Besides the advantages of the virtual call center approach, Arise offers their corporate clients well-trained agents who can provide superior service for more complicated transactions. Increasingly, clients not only need services to be provided around the clock, every day of the week, but a team of certified professionals who can provide more detailed explanations and responses to unstructured situations. In addition, Arise has responded to clients' desire for pay-for-performance contracts--all of their new contracts are of this type, rather than fixed, cost-plus contracts.

Arise's growth has been facilitated by the Internet and web technology. The virtual agent model, the term used now is certified professional, started in 1997 as a consortium of Bell

South, the State of Florida, and Florida State Services for the Blind. From 1997 through 2002, all training was offered in person at Florida sites. To enhance recruitment and selection opportunities, training became web-based in 2002. This change allowed increased access to military spouses, retirees, stay-at-home parents, and persons with disabilities and has enabled training for new clients to be performed more rapidly and without travel expenses for the agents.

The virtual agent/certified professional model is quite different than the traditional call center operation for employees as well as clients. Each certified professional is required to incorporate as a small business and establish a separate business checking account. Arise then deposits funds directly in those accounts, and certified professionals pay themselves from those business accounts. Agents also pay for their own computer, high speed internet connection, and \$39.50 per month for Arise's technology costs.²⁹ Agents must pay their own taxes, with Arise providing workshops on tax matters and other small business topics.

For the most part, certified professionals are guaranteed an average wage per hour, with final compensation being determined by either the number of minutes on the phone or the number of completed calls. The average starting wage is between \$10 and \$14 per hour. Some agents have opportunities for incentives, based on encouraging customers to accept offers for discounted promotions. Also, some agents can earn up to \$20 per hour by staffing higher stress positions such as the American Automobile Association's emergency line.

Agents typically work 10 to 65 hours per week, based principally upon a teleworker's desire, assuming his/her performance meets acceptable standards. Most agents provide services to more than one client, which Arise has found beneficial for both clients and teleworkers. Service levels for clients are generally higher as customers encounter more positive agents. And because certified professionals do not handle the same type of calls at all times, they tend to be less tired, more refreshed, and higher performing. Arise uses interactive voice response (IVR) to monitor quality of certified professional calls.

Unlike in most traditional call centers, there are promotional opportunities for some teleworkers. Some agents have become specialists in providing technology support to other agents, while others have become involved in advising applicants. Still others are promoted to a group leader role and supervise a number of other agents. Finally, some agents find a niche in training agents about new services or new clients' products. Arise's contractors can join a national group of certified professionals. This association offers health benefits and also helps provides a forum for interaction which reduces the isolation that some certified professionals feel. At any given time, certified professionals can chat online and instant message both their group leader and other co-workers as necessary.

Recruitment and selection of certified professionals are crucial elements in the virtual teleworker model. Successful teleworkers must be technology savvy, entrepreneurial, disciplined, self-starting, and able to set and work their own hours. They must also have

²⁹ That was the fee in late 2006.

strong communication skills, be willing to ask for help if needed, and adapt to, and learn, new technologies. Based on past experience, Arise had determined that only about 15% of applicants are suited to become a certified professional. The average age of an Arise agent is 38, and more than 80% of agents have had previous call center experience. About 70% of agents are women, and 30% are bilingual. Approximately 4% of Arise's current certified professionals have disabilities. Profiles of three Arise certified professionals with disabilities are provided below. All of these individuals have extensive experience working for Arise.³⁰

II. Teleworkers Perspectives

Profile--Teleworker A

Teleworker A is in a wheelchair. He used to become sick regularly but hasn't had a cold, let alone anything more serious, in more than four years. He is simply not around people as much because of his work setting and lack of commuting to and from a regular office. Arthur has a college degree, performed an internship at the University of Miami in the early 1980s, and has an information technology background. He has also been a teacher's assistant. Currently he resides in Fort Lauderdale, Florida.

His current primary client is Time Magazine where his goal is to market higher priced options to callers. In the past he has also worked with General Electric and Office Depot, and is planning on beginning a new assignment with Staples. He also previously worked on emergency calls for the American Automobile Association (AAA) but found those to be too stressful for his liking. His average hourly wage is in the range of \$12-\$13 now and will be increasing to approximately \$15 per hour with his Staples work.

He has worked with Arise for 10 years, and is highly complimentary about the firm. He said Arise provides individuals with multiple opportunities to succeed so if one job does not prove satisfactory, an agent can try another. Further, the firm shows confidence in agents who perform well--once an agent's performance reaches an acceptable level and an agent demonstrates they are working satisfactorily, there is less monitoring her/his calls. The primary negatives of the job have been technology glitches, which can disconnect temporarily an agent from the system, and few co-worker relationships.

In terms of scheduling, Teleworker A generally works early in the week and in the early afternoons, which are heavy calling times and also, coincidentally, are the times when he feels best. He said he is able generally to determine his own schedule. Other real advantages of the job are that he does not need to commute, he saves money on clothes and transportation, and he can prepare for new tasks by studying in advance. He particularly likes the independence of telework, noting that he is free of petty oversight situations and abhorrent supervisors. He also believes that advancement opportunities at Arise are important, although he personally has no desire to become a group leader.

³⁰ Additional information about Arise is available at <http://www.arise.com/Content/default.asp>

Profile--Teleworker B

Teleworker B has an anxiety disorder: agoraphobia. While this disorder sometimes is associated with fear of public spaces and open spaces, strictly speaking an agoraphobic is afraid of encountering embarrassing situations from which there is no easy escape. Persons with agoraphobia usually have no fear of people per se, which is one reason why Telework B thinks telework can be an ideal employment option for agoraphobics--it allows them to stay within their safety zones. Pamela, who does not like to be outside or around people, has recently also developed carpal tunnel.

Teleworker A has an information technology background. She was in an early class on e-learning and worked for two years with the National Institute for Telecommuting. Her accomplishments include being named the TeleAgent of the Year in Florida. For Arise, she currently provides Level 1 technical support for Palm's PDAs and Teleflora, an online flower ordering company based in Los Angeles. In the near future, she intends to begin working with Apple as her third client.

Teleworker B is part of a group of six TeleAgents who went through training together and have become friends over time. Members of this group also have mentored newly hired agents. To be a successful certified professional, she believes an individual must be very self-disciplined and computer literate. While not everyone has the requisite skills to be a TeleAgent or finds a good fit with telework tasks, she believes no one should let their personal reluctance or fears prevent their applying to Arise's program. If one is successful, she notes the personal satisfactions can be substantial as one feels they are making a contribution.

The financial benefits from telework must be viewed in perspective according to this teleworker, who has a daughter. Teleworker B is on Medicare and receives SSDI. While she has to monitor carefully how many hours she works to avoid exceeding an income limit, overall she says she is just able to get by because her monthly medication costs are approximately \$465. Her hope is that government regulations will be changed to allow her to work more and still be on SSDI without losing medical benefits. She cited the impracticality of small business rates for medical insurance, as they are much too high for someone with her level of income.

Profile--Teleworker C

As a quadriplegic with C2 and C3 incomplete, Teleworker C has limited use of several fingers. He is able, however, to type in his role of helping applicants to start the Arise admission process. He basically serves as a support, helping new applicants with technology problems. His work utilizes skills and training he developed in receiving a two-year technical degree from a local community college.

In his prior employment as a programmer, this teleworker found it too difficult to commute and the work too taxing. Even though he now works 30-40 hours per week, he is less tired than in his prior job. Further, Arise helped him to regain his speech, as it was a requirement of the position, and his speech has improved steadily from conversations with customers. He said he has few difficult customers, which also makes his job less stressful and taxing than before.

Other advantages of his job are: scheduling flexibility (“it is wonderful”), rewarding tasks, and his home-based location, which allows him the energy to travel for himself when he desires. He said he has no sense of being isolated, because of his frequent interaction with customers. An enormous advantage of his current position is that he is able to perform necessary therapy every morning, which maintains his health. Despite his considerable physical limitations, he said he has no need for a personal assistant, and his wife is able to work full-time outside of the home.

Teleworker C believes many individuals with disabilities who are not currently working could become certified professionals. He said the most important characteristics are dedication and reliability--a certified professional will become successful if she/he does what she/he says they will do. And he likes the compensation approach in which a certified professional’s pay is determined primarily by the number of calls they handle--the more calls there are, the more compensation an agent receives.

Part B

The following four teleworkers became certified professionals by successfully completing training at the Minnesota Resource Center (MRC) and passing all Arise requirements. Their experiences were of considerable interest because of MRC’s role in providing training assistance.

Profile--Teleworker D

This veteran has been working for ARISE about one year and is very pleased. He has a flexible, part-time schedule of his own choosing, both by days of the week and during the day. He has had numerous prior jobs, although none included call centers or teleworking. He is 57 years of age and has some college coursework. Personally he spent \$200 in one-time expenses to set up his at home work station; additional, unknown costs were incurred by the Veteran’s Administration and the Minnesota Resource Center. Also he has on-going expenses for broadband.

He received two types of training prior to his first client assignment. At the outset, the Minnesota Resource Center provided two weeks of instruction about Arise, including its admission process. These included computer-based materials, which he feels are superior to print materials. Once he was selected, Arise provided 10 days of training about clients’

needs, programs, and contacts. Teleworker D believes that both sets of training were adequate and necessary in preparing him for his current activities, which focus on the admissions process for new recruits.

Communication by phone, email, and instant messaging occurs throughout his workday both with his supervisor and his clients. Co-workers are extremely supportive as well. And according to Teleworker D, Arise has mentors and technicians who provide support when necessary: program issues are handled by a support department that is very proficient and personal concerns or difficulties can be shared with personal mentors that each agent has for each client. He feels these supports are adequate.

Despite his varied employment background, Teleworker D had practically no employment opportunities prior to becoming associated with Arise. Also, he had doubts about his ability to complete the admissions process and begin teleworking. Now he is able to work as his disability allows, his biggest barrier is his own self-management, and his image of himself has improved substantially.

Financially, he finds the financial benefits limiting, despite new incentives being given to some teleworkers.³¹ His pay is less than \$20,000 annually, comparable to work at other customer call centers, but far less than he earned previously. He believes there will be opportunities to increase his earnings in the future, based upon what he sees as other possible incentive opportunities. The pay cut he took, however, was unanticipated, and he does not have resources to update his home electricity situation or buy replacement, energy efficient windows, which would reduce his heating costs from being at home all the time. As an independent contractor, he receives no benefits from Arise but does receive medical benefits from the Veteran's Administration.

Teleworker D feels the two most important characteristics of a successful teleworker are communication and self-worth. There is no doubt in his mind that teleworkers can supervise other teleworkers or that teleworkers can supervise non-teleworkers. Because he does not believe that many jobs require a physical presence at a particular location, he sees teleworking as expanding in coming years. In his view, teleworking by new employees with disabilities is a viable option, although it is not for everyone. He believes the programs and techniques used by Arise are top-notch in preparing new agents for their tasks.

Teleworker D suggests that the number of teleworker opportunities for persons with disabilities could be increased considerably if there was additional financial assistance provided to offset start-up costs of agents. As noted earlier, in his own situation, his home working environment could be improved if he had resources for energy efficient

³¹ To enhance recruitment of new agents, Arise had several promotions that reduced the cost to applicants such as reducing the cost of the background check by 50%. That promotion continues while at least one of the other promotions has since been discontinued.

windows, additional insulation, and electrical upgrades.³² Also he suggests that some persons with disabilities need to be more assertive about teleworking:

“... more intimidating to think of the process than once initiated... just go for it and the rest will fall in place”

Presently, with the cost of gas, no other viable employment options, and disability setbacks, he is focused on being the best he can be at his current position. He is very satisfied with his current employment situation and is not seeking opportunities with other companies.

Profile--Teleworker E

With a B.A. in English/Communication, prior work experience in two call centers, approximately 20 years of paralegal and legal secretary experience, and previous background as a teleworker, Teleworker E was a very attractive candidate for Arise. To prepare for the admissions and testing process, the Minnesota Resource Center (MRC) provided a review of the Arise training materials. This MRC training occurred intermittently over a period of two months. For someone with her background and training, she did not consider the training essential as it was duplicative of what was on the Arise site. She does believe however the admissions process was thorough and applicable to the activities she has been performing. Once hired, Arise then trained her on its system and sample clients.

Teleworker E needed a computer, desk, printer, chair, incorporation fees, telephone service, and access to the Internet. All set-up costs were paid by the MRC. She has continuing costs for the internet, telephone, Arise technical support, paper and supplies, and fees paid to Arise for classes related to future client opportunities. She has a part-time flexible schedule, although if she takes on a new client her schedule has to adapt to the training class schedule. The number of hours worked are dependent on the minimum and maximum hours set by Arise for each client. For example, her current client requires a minimum of 15 hours per week, and she may exceed that number if other hours are available.³³ She has worked with Arise since spring 2007.

Interaction with co-workers is not that important to Teleworker E. She has no issues with isolation, and she frequently interacts with two colleagues on a weekly basis. Otherwise

³² Besides financial assistance for those specific items, Teleworker D would like to see some incentives from the federal, state, or county governments to support people who work at home. According to Teleworker D, home-based employees reduce wear and tear on local roads, consume less energy, and generate less pollution. He is unsure whether this incentive should be a direct grant to "work from home" individuals or some type of credit for setup and maintenance of a home-based telework environment.

³³ Available hours must be divided by the number of contractors servicing the same client so that is a factor in determining if more work is possible. Most contractors will work with more than one client in order to attain the number of hours they prefer.

her interaction with other contractors is through the “chat room” when working for a client.

Teleworking affords this teleworker the flexibility she needs to work around her disabilities, which limit and restrict her mobility. Many times, she is in pain in the morning and it is not until the afternoon that she is able to move around without pain and restriction. Often, her hands are swollen which restricts her ability to type, write, lift or pick up items.

Her employment with Arise allows her to work and earn an income that supplements the social security benefits she receives, but she is not entirely satisfied with several aspects of the arrangement. First, her pay rate is \$8.50 per hour, and because Arise provides no benefits, she must restrict her hours to avoid surpassing the current earnings threshold.³⁴ Otherwise she would lose her medical benefits from social security. Teleworker E believes that if the objective of teleworking by persons with disabilities is to encourage individuals to eliminate social security benefits, then only employers that provide benefits should be utilized, or another federal agency should provide medical benefits.³⁵

A second area of concern has been communication with Arise, or rather the lack of communication. Some communications from Arise go through the MRC, rather than to her directly, which she finds personally insulting. She believes that the label of “disabled” has been a hindrance with Arise in establishing a working, business, professional relationship. Arise has treated her as if she needed a guardian or someone to intervene on her behalf, when in fact, she is an intelligent, educated, competent individual with physical, not mental, limitations.

Third, Teleworker E feels that Arise could improve a number of administrative procedures with its contractors. Although Arise provides classes/training to contractors on specific client requirements and needs, she does not know who her supervisors are. ³⁶ Nor is she happy about feedback from Arise employees:

“One of the many mysteries in the world of Arise is I don’t know who exactly the supervisors are and when you are directed to an individual (e.g. in payroll) that individual does not respond to your concerns or attempt to resolve issues amicably for both parties.... I believe it is Arise’s

³⁴ These social security medical benefits cost Teleworker E about \$93 per month. She is also technically eligible for medical assistance through a Minnesota county program, but that starts only after she has expended \$350 per month, which in reality means she receives no medical assistance through that program.

³⁵ Teleworker E suggested that a stipend needs to be provided for one year while an individual is participating in a federal demonstration project.

³⁶ The MRC, according to Teleworker E, attempts to provide support but she does not feel it is their responsibility, now that she is working with Arise. Also she has been told that individuals at the MRC are her “coach” but she believes her “supervisor” should be someone at Arise.

responsibility and obligation to provide support to its contractors, thereby assuring the success and wellness of the contractor.”

In sum, she has had no problems or concerns about teleworking activities per se, only her working relationship with Arise. She is somewhat satisfied overall with the supplemental income she have been able to earn but not sufficiently satisfied to rule out looking for other teleworking opportunities. 37 At this time she is focusing on her health, and if it improves, she may be able to expand her work opportunities.

Profile--Teleworker F

This teleworker has worked for Arise for about 8 months. She is approximately 30 years of age with an associate’s degree in medical administration. This qualifies her to perform medical transcription, insurance, billing, and a variety of other activities in the health information, administration field. Her prior employment does not include call center tasks or teleworking, although she has been a certified nursing assistant, cashier, casino employee, and retail bakery worker. She has a lower back injury which now precludes any type of physical labor.

Similarly to many other Arise teleworkers, she works a part-time flexible schedule which she has chosen. Also like other Arise contractors recruited in conjunction with the Minnesota Resource Center (MRC), she received training to help become an Arise certified professional. Her training was about four weeks in length, although she feels that she may have been able to absorb the material in less time. Once she was selected to be an Arise contractor, she received an additional three weeks of computer-based training on how to use their system for call transfers, and secure log in as well as using client application tools such as books, resources, databases, and chat rooms. Teleworker F believes the Arise training was appropriate for the tasks that she has performed.

Expenses to become a contractor included \$1200 for a new computer, \$200-\$300 for classes, \$100 for phone for 3 months of internet/phone, \$40 for a headset, and about \$120 for three months of Arise technical support. All of these costs were paid by the state rehabilitation agency or the MRC. Her only continuing new expense is a monthly fee for high speed internet/phone service.

Her experience with teleworking to date has been somewhat mixed. Her primary motivation for teleworking is to have a flexible schedule and make a decent income. She is proud of her ability to be responsible for her own schedule. And she is able to earn money from her contracting as the hourly pay range is between \$8.50 and \$13 per hour. She however, has found the teleworking environment to be lacking in social interaction. There is no companionship from co-workers as many of the professionals with whom she

37 She is unsure whether she would recommend that others contact Arise about employment. She believes teleworking can work for a new employee with a disability if they are provided accurate information about likely working hours, wages, and costs. With accurate information, an applicant can then decide if the Arise arrangement will meet his/her needs.

has contact live half a continent away. And the interaction she has with co-workers and others at Arise she considers quite impersonal. She realizes that some isolation comes from teleworking but she nevertheless prefers more interaction. This is one reason why she also works in a part-time retail position near her home.

Longer-term, Teleworker F is unsure about her commitment to teleworking. She is satisfied with her work now and not likely to seek employment elsewhere. Also she believes the self discipline required to be a teleworker is a positive as is working independently, provided one has the attributes and personality to do so:

“You don’t receive a lot of supervision or direction. You have a great deal of responsibility to make sure you are meeting certain standards—i.e. job performance, hours, revenue....It is a great alternative to working outside the home but [a person must] keep in mind you are pretty much working with yourself and you need to be a very responsible and self disciplined person in order to make this work. You have little supervision and a lot of decisions are made using your own judgment—you must be very confident that you know your applications, policies, and procedures.”

However, Teleworker F does not believe she can advance at Arise. Further the impersonal aspects of the job and the business bother her to the point where she said: “I am just a number to these people. ACP# ____.” (This number was deleted to maintain confidentiality.)

She believes that persons with disabilities who have substantial self-discipline and an independent personality could be well suited to teleworking even as a new employee. She thinks teleworking is a fantastic option for a person who has limited mobility, is unable to drive, or does not have resources to use local public transportation. She strongly recommends that more publicity be directed to appropriate government agencies that teleworking options exist for those with suitable backgrounds and personalities.

Profile--Teleworker G

Teleworker G’s prior employment background includes customer service (wholesale and retail), administrative support, reception work, quality assurance, marketing, travel coordination, and operations management. As part of her customer service experience, she took calls, generated orders, and performed collections. She is in her mid-50s and has a high school diploma and some community college courses in algebra.

This teleworker was injured and now has a physical disability involving her back. Prior to her injury, she worked 45-60 hours per week and was always on the go. After her injury, she was unable to secure employment, despite her background:

“Employers are extremely hesitant to hire someone knowing you have limitations especially when it comes to your back...most positions have

minimum physical qualifications which tend to rule me out immediately.”

She was referred to the Minnesota Resource Center (MRC) by a state department of vocational rehabilitation counselor who saw her as a candidate for teleworking. Teleworking provides a very good environment for Teleworker G, and the schedule flexibility is especially appealing:

“Doing telework out of my home through Arise, I am able to arrange my schedule around the breaks needed to alternate between sitting/standing/walking and the medications which have a tendency to make me lethargic and sleepy. My flexible schedule also allows me to work around numerous doctor appointments.”

Before she became an Arise contractor in July 2007, Teleworker G received training from the MRC on customer service in general and methods for using Arise systems in particular. This training, which also focused on quality assurance standards and expectations, was conducted over a six-week period for 3-4 hours per day. In addition she received preparatory instruction about the Arise admission process and test simulations using computer based materials (videos, presentations). 38

As part of the process of becoming a contractor, she spent approximately \$1500 remodeling a spare room into an office and making necessary improvements in electrical and telephone connections. She has ongoing expenses for a separate phone line and for a high speed internet connection.

Once confirmed as a contractor, Teleworker G began client-specific training using the client’s software and website. In general, this training lasts approximately two weeks. In her view, a slightly longer period of hands-on training should be provided. Arise also has provided employment supports through skills enhancement and mentors, who are Arise agents who started out as rookies and have now become much more skilled. Teleworker G believes these supports at Arise are beneficial and adequate to address issues and problems of beginning agents.

During her four months at Arise, Teleworker G has never met a colleague, as her co-workers are dispersed across the United States. The contact she does have with co-workers has been entirely through instant messaging and business-related. Further, she does not have regular communication with her supervisor, because she has no supervisor per se. Yet she does not feel isolated at all. In fact, she enjoys not having the interruptions, and when asked what she would change about her job, she said, “nothing.”

Prior to becoming a contractor, Teleworker G was concerned that she would not succeed at teleworking. Yet, teleworking successfully has given her a sense of self-worth through contributing financially as well higher self-esteem by working for herself, rather than for

38 Teleworker G said the financial help provided by MRC and DVR those first few months was a blessing. The resources she received alleviated stresses related to money issues and allowed her to concentrate on training.

others. She has substantial pride in accomplishment and believes that along with a proper attitude are the key characteristics of a successful teleworker. Despite having no benefits at the present time, Teleworker G says that she very satisfied with her contracting opportunities and is very likely to continue in that capacity.

This transformation can best be described in her own words:

“My disability caused great emotional damage to me. I felt segregated at work. I was no longer contributing financially or physically to my family. My social life decreased dramatically. I became extremely depressed. I was then referred to DVR about 9 months after my injury. My DVR counselor turned my life around by referring me to this program! I now feel worthwhile, I am able to contribute financially to my family, and I have great pride and increased self esteem in what I have accomplished.”

In the future, Teleworker G sees increasing numbers of companies moving to teleworking because such workers are more productive. In her opinion, teleworking by persons with disabilities could be increased by offering telework through all Workforce Centers and Social Security Income offices. In addition, financial assistance would aid this effort as would informing state rehabilitation staff more completely about when teleworking may prove useful for persons with disabilities. Also, she feels that disabled individuals sometimes are too reluctant about new opportunities. Her advice to other persons with disabilities about teleworking: *“Do it and accept any training offered!”*

III. Observations

Arise’s business model has evolved through years of customization and adaptation to both technology and market conditions. The company’s expansion illustrates that its telework business model is meeting a true market need of corporate clients by offering enhanced service levels at lower cost than traditional customer call operations. Also Arise offers a dispersed workforce that is important to some corporate clients who are particularly concerned about customer service during regional disasters. With certified professionals spread geographically across the country, the likelihood there will be loss of technology and major blackout periods without customer service is minimized.

Because of the virtual aspect of Arise’s business and their continuing need to recruit potential new agents from non-traditional populations, there may be increased employment opportunities for returning veterans with disabilities and individuals who have been receiving workers compensation. Certified professional teleworker positions offer:

- flexibility of scheduling and home bound employment, two excellent job characteristics for persons with disabilities as these characteristics allow

individuals to tailor work around their health needs, other jobs, or personal situations;

- tasks mostly involving inbound calls, instead of outbound sales, thus reducing job-stress and pressure;
- a certified professional association for obtaining various types of group benefits if desired; and
- an opportunity which enables individuals to feel productive as they are a contributing member of the workforce.

There will be limits to how many persons with disabilities can become certified professionals, however. First, some individuals will have difficulty with the start-up expenses, which may be as high as \$2,000, if a person does not have a suitable computer. From the teleworker profiles, several individuals required assistance from state or federal programs but not everyone may be able to obtain outside assistance. Second, because of the upfront costs and the monthly fees, a certified professional's net pay may be less than that of employees at traditional call centers. Whether the tradeoff of lower pay is offset by flexibility with scheduling and other benefits is a decision for each applicant. Third, some individuals will find the contractual option with Arise to be more complex than holding a traditional position. Not everyone is suited to incorporate as a new business entity, set up a new bank account, document business costs, or deal with taxation as a sole proprietor. Fourth, applicants on some types of supplemental public assistance income must determine the number of hours they can work without loss of major medical benefits. This is especially important for individuals with pre-existing conditions.

Based on the experiences to date, it is clear that some applicants will certainly not have the requisite skills to participate, and no doubt some proportion of applicants will have the necessary skills but not have the interest or motivation to move forward at this time. Some individuals will find the application process to be daunting or even intimidating. This is especially likely for individuals who have been out of the workforce for years. One test is timed and demands working quickly with various computer screens. Another involves an interview, which will instill test anxiety in some applicants. Those who pass these two tests then enter an e-learning course that is fast-paced, as a number of remote certified professionals are trained in the same course. Both the admissions process and training present mini-barriers to potential certified professionals. However, those individuals who are able to receive training prior to the actual Arise tests, such as those individuals who received MRC's customized training, appear better prepared. And those who survive the entire admissions process will have demonstrated their abilities to react quickly to screens and voice input from several callers and multi-task, along with problem-solving and service skills more generally. Additional supports for consumers may be desirable as well, although that was not the case with the four teleworkers described previously.

What proportion of applicants is able to pass through the application and training processes cannot be determined now. The number of applicants and placements have been too few in number to state with confidence what proportion of applicants will be able to become certified professionals. The experiences generally have been good to date, however, which is promising.

The Hartford's Pioneering Customer Services Group

Company and Program Background

The Hartford is one of the oldest and largest investment and insurance companies in the United States. Founded in 1810, the company is a leading provider of automobile and homeowners products, business insurance, investment products, life insurance, and group and employee benefits. Recognized for the diversity of its product portfolio and distribution networks, The Hartford serves customers through independent agents and brokers, financial institutions, affinity groups, and via the Internet.

The Hartford Customer Services Group was established in 1998 in Ft. Washington, Pennsylvania, a Philadelphia suburb, to handle calls for third-party clients involved in healthcare products and services for seniors, including Medigap, long-term care, dental, vision, and pharmaceutical services. The Hartford Customer Service Group is the primary service provider for AARP Healthcare Options, a suite of health care products offered by AARP (formerly the American Association of Retired People) to more than 36 million AARP members.³⁹

The Fort Washington center and a similar center in Allentown, Pennsylvania, have approximately 1000 customer service and sales representatives who handle more than 17 million contacts per year. While the call center's primary focus was customer service, over the years HCSG built a telemarketing group of 450 telesales professionals has been added.

According to The Hartford Customer Services Group's chief operating officer, Jay Fleming, its growth strategy has been supported in part by a three-legged stool: a bilingual leg, a flexibility leg, and a telecommuting leg. The telecommuting leg began in 1998 with a pilot program to retain two individuals who had physical disabilities which prevented them from working in the office. Over the next two years several more requests to telecommute due to special needs were received, and telecommuting increasingly was viewed as a retention solution for employees (or their family members) with disabilities. HCSG began formal expansion of the telecommuting program in 2004.⁴⁰

Telecommuting Today

39 This partnership with AARP was extended recently through 2009. By 2014, it is estimated that AARP will have nearly 14 million health insurance customers, making it the largest source of health insurance for Medicare recipients.

40 For individuals seeking further information about the other two legs or the history of HCSG telecommuting, there are two articles available online: (1) the online edition of Call Center Magazine, Issue #1909, page 59, September 2006, by Richard Webster, available at: <http://www.callcentermagazine.com/shared/article/showArticle.jhtml?articleId=192202527> and (2) an article by Carol Patton in Human Resources Executive Online, May 16, 2006, available at <http://www.hreonline.com/HRE/story.jsp?storyId=5176412>.

Currently HCSG has 215 full-time employees taking calls at their homes. About 25 of these home-based employees have special needs regarding disabilities, with the majority caring for others in their households who have disabilities. The option to work from home allows these employees to maintain meaningful employment and benefits in spite of their special needs and to reduce the strain on their personal lives, thereby allowing them to concentrate more on their job performance. Although no precise demographic information was compiled for this case, it is estimated that approximately 70 percent of all home-based employees are female.

According to recruitment information from the company, customer service representatives are expected to handle both inbound and outbound call functions and provide an overview of the AARP Healthcare Options benefits and services. Additionally, representatives send information packages to individuals who are interested in enrolling in one of the insurance products.

Qualifications for customer service representatives include the ability to identify customer needs by using the “listen, acknowledge, make a statement, and ask a question technique;” strong verbal communication skills; an ability to learn new programs and procedures quickly; technical proficiency with a PC in Windows 2000 environment; and an orientation to detail. If candidates meet or exceed these qualifications, pass a required skills assessment test, and are selected, they begin a seven-week, paid-training schedule that includes three weeks of classroom training and four weeks of on-the-job training.

Representatives are paid a base starting salary of \$28,000 and have an opportunity to earn monthly bonuses, which can range up to \$400 monthly. All full-time representatives of the Hartford Customer Service Group, which is nearly everyone, are offered comprehensive benefits from the time they begin training. This includes medical insurance, dental insurance, life insurance, 401k, tuition reimbursement (after 6 months), and paid time off.

Currently only employees with at least 6 months of experience onsite at either the Fort Washington or Allentown centers are eligible to telework because of the training and experience needed to sell the highly complex and regulated products and services. This stipulation is noted when new representatives are recruited, as a section within the heading of career path opportunities. Before employees begin telecommuting, they are provided training on ergonomics, issues related to email and personal computers at external, off-site locations and several other matters.

Performance Metrics

What began as an accommodation to retain high performing employees has expanded for other reasons as well. First and foremost, senior management were impressed by various performance measures for the home-based representatives. According to Jay Fleming, the HCSG COO:

"All of the performance metrics for telecommuters are as good as or better than those of the staff in the centers. Staff are more productive at home and our employee retention rate is phenomenal. The turnover rate for at-home workers is ninety percent less than the rate for our contact center, which is already best-in-class."

Some of the difference in performance between the at-home workers and in-office workers was attributed to the at-home workers being more experienced, because of the six-month in-office requirement. But the difference in performance was too large to be explained by that alone. In fact, senior management said that all the traditional metrics (handle time, quality, and sales) have been superior for the at-home workers. And a closer inspection of metrics for individual employees found that in all cases, the representatives with disabilities or caring for those with disabilities, performed better once deployed to their homes.

Not only has the turnover rate for at-home workers been remarkably low—in the low single digits in a field known for its high turnover--since the program has started, not a single at-home worker has left to go to another call center operation. Some at-home workers have retired and some have stopped working, but none has exited to a competitor. Having a low turnover rate directly affects costs in a large customer service operation. Because the products are complex and well-trained employees are required, a low turnover rate reduces recruiting and training costs. HCSG estimates its low turnover rate reduces training costs per employee by about 2/3rds, saving HSCG more than \$6,000 per employee.

There are other benefits as well. Home-based representatives, unlike office-based employees, often are willing and able to work split shifts because no transportation is required. Split shifts allow HCSG to have a more flexible staffing approach which enables it to extend its service hours and handle peak load periods in an industry that has daily and seasonal workload fluctuations.

Home-based representatives also are beneficial in at least two other respects. First representatives do not need office space within the call centers. The HCSG recently renegotiated its office space lease and generated cost savings from 30,000-35,000 square feet it no longer needs. In addition, at-home employees are viewed positively within the company in terms of disaster recovery procedures and also regionally in terms of pandemic planning.

For employees, there has also been an evolution regarding the purposes of their home-based work. While the first two individuals were accommodated for personal matters affecting job performance, the reasons for at-home telecommuting have grown to include caring for family members and latchkey children situations. More recently, high gasoline prices have been cited as a reason for requesting at-home work. And in eastern

Pennsylvania, absenteeism due to winter snow storms also can be mitigated to some extent by working at home.

So what started as an accommodation to retain a couple high performing employees has now grown into a program with numerous advantages for the company as well as its employees. Furthering the entire expansion have been technological advancements which have made it easier to deploy at-home customer service representatives. However, none of the expansion would have occurred if the objective performance metrics had not been superior.

There have been few drawbacks or disadvantages to home-based work according to senior management. Initially there were some issues with technology interfaces and DSL and cable modem snafus, but those have diminished due to improved high-speed, fiber-based DSL. Nor have there been any significant communication, coordination, jealousy, or isolation issues related to co-workers. Extensive data gathering by a Hartford employee showed no animosity toward co-workers who worked at home. And while isolation has not proven to be a negative consequence in general, some effort is being made to inform individuals that social networking can occur virtually and not only in an office setting.

Another potential problem for both the company and high performing employees is whether telecommuting would affect the career paths of these employees. HCSG has a management rotation program to groom talented individuals, and two or three individuals have chosen to work at home despite being informed that doing so would preclude their participation in the management rotation program. This is not considered a major problem however, as senior management believes the individuals are likely to return to an office-setting and the management rotation program, once they finish caring for a family member or complete school.

Forthcoming Initiatives

When telecommuting from home was initiated in the late 1990s, this was a relatively new concept, and acceptance by The Hartford headquarters staff was tepid. Because the HCSG has substantial independence as a business entity, the program evolved gradually, the performance metrics have been solid, and business volume has grown, corporate acceptance is no longer a concern. In fact, the home-based program encompassing the three components (telecommuting, bilingual, and flexibility) is now viewed as a pinnacle program within The Hartford, having generated positive national recognition for the company.

The program will continue to expand in all likelihood. By the end of 2008, approximately 300 of HCSG's 1000 customer service and sales employees will be working at home as each quarter, about 20 new representatives become home-based. 41 In addition, by the

41 Normally 20 HCSG customer service representatives begin to work at their homes one quarter and then the next quarter, 20 HCSG sales employees begin working at their homes.

end of 2008 most managers of home-based customer service agents will be working at home. Based on the results of a pilot project in 2007, the plan is for managers to telecommute full-time for several weeks and then return to the office one day a week, for several weeks, to ensure they are still attuned to HCSG's organizational culture and plans. 42

Another new development for HCSG will be small, at-home virtual workforces outside of eastern Pennsylvania. In late 2007, HCSG started new initiatives in Charlotte, North Carolina and in Reno, Nevada, which will employ a total of about 40 new at-home employees. There is a possibility of additional venues in other locations based on the performance of these two locales.

To expand opportunities for home-based employment of individuals with disabilities, HCSG believes additional federal, state, and private resources must be targeted to training of disabled candidates in PC proficiency, customer and telephone service, and writing and email. Also new resources should be provided for home-based work stations, perhaps in conjunction with state and local rehabilitation agencies that usually have authority to expend resources for this purpose. Above all, HCSG believes that more individuals with disabilities could be employed at home in customer service positions if paths could be developed to provide more possible candidates with appropriate qualifications and training. Put differently, a larger number of persons with disabilities will be able to telecommute, if and only if, there are many more persons with disabilities in the pool of possible new hires. If more candidates can be identified, more can be placed, as job openings exist.

42 Eight front-line managers working at home have been supervising at-home customer service representatives. HCSG is studying whether at-home supervisors and managers can supervise in-office customer service representatives, an issue which arose recently for the first time.

Synthesis and Implications of Case Studies

Main Models

The case studies capture the substantial variety that exists in teleworking by persons with disabilities. Based on the cases, there appear to be several categories, or models, currently:

- Disability-centered teleworking—This is exemplified by targeting a pool of persons with disabilities from a rehabilitation agency, vendor, or other source in which specialized training and support is provided to potential teleworkers. LIFT, United Way 211, and by the original Arise approach, when it began as Willow are examples of this model. These may begin as pilot projects in which a concerted effort is made to have an agency serve as the employer, at least for part of the time. Or an agency can work in partnership in providing teleworker training and support.
- Home-based teleworking drawing upon disabled individuals—This includes SERVICE 800, the current Arise approach, The Hartford Customer Service Group, as well as other companies such as Working Solutions and Alpine Access. This model offers telework to persons with disabilities, just as they do for other non-disabled individuals. Some employers may require some work experience onsite before telework is offered.
- Incidental or intermittent teleworking--This allows persons with disabilities to participate but having a disability is incidental. These are initiatives which were started for general corporate purposes or other reasons, such as the State of Arizona (reduce traffic congestion) and the anonymous company (corporate culture).

Another possible typology would be employee-centered programs and business-centered programs. Using this typology, the cases would be classified as follows:

Employee with a disability-centered

LIFT

Arise (original)

Business-centered

United Way 211

SERVICE 800

Arise (current)

The Hartford Customer Service Group

Working Solutions, Alpine Access

State of Arizona

Anonymous company

Yet another approach would be to categorize the cases along a continuum in which there is a varying degree of engagement of, or focus on, persons with disabilities. The employee-centered programs as well as United Way 211 began initiatives exclusively with persons with disabilities. These programs are closely tied and partnered with rehabilitation agencies. At the other end of the continuum are the State of Arizona and the anonymous company where disability was inconsequential when teleworking began. In Arizona, the primary objective of teleworking was, and continues to be, to reduce transportation congestion while for the anonymous company, the culture is oriented to telework for all employees. 43

Because each of these teleworking programs has multiple dimensions, all of the categorizations are somewhat imperfect. Not only is there fluidity across the models to some extent, a number of programs have evolved over time. Arise began as a telework program for blind individuals and now has a workforce which is largely non-disabled. The Hartford Customer Service Group began as a traditional call center, then began a very limited initiative to retain several individuals with disabilities, and now has evolved into a more widespread home-based program encompassing other teleworkers, the majority of whom still do not have disabilities.

In addition, it must be remembered that the categories and typologies are based only on the cases identified and researched in this project. It is unknown if these are truly representative of all teleworking programs involving persons with disabilities. For varying reasons, case studies could not be completed on many other organizations during this project period. 44 Declinations were received directly or indirectly from:

U.S. Postal Service, Office of the Inspector General
Bonneville Power Administration
U.S. Selective Service
U.S. Department of Defense (several Defense Finance & Accounting Service units and two US Army units, all of which were located outside the metropolitan DC area);
California Employment Development Department
Commonwealth of Virginia
Oklahoma Call Center
Wisconsin Department of Transportation
Tennessee Valley Authority 45

43 In neither situation is there assistance provided by a third party in recruitment and selection. Nor is telework training provided prior to hiring. Post-hiring employment support is provided by the anonymous company but not by State of Arizona departments and agencies.

44 Most organizations did not specify why they did not want to participate although staff from two of the organizations listed felt their efforts should not be deemed a “best practice.”

45 Both the Wisconsin Department of Transportation and Tennessee Valley Authority have terminated telecommuting or home-based programs oriented to persons with disabilities. Up to two cases had been planned to learn why employers terminated such programs. Neither organization agreed to provide information. Attempts to contact other employers which had teleworkers with disabilities in the past, such as American Express Bank and a major public transit agency in the Southwest, proved unsuccessful also.

It is quite likely that most of these agencies and organizations would have been in either a model 2 or model 3 and in the business-centered typology, but that cannot be known for certain without having developed a case study.

Because of the differences in program objectives and participating teleworkers, it is inappropriate to view any one of the models as being superior to the others. Individuals seeking employment through Arise, United Way 211, and SERVICE 800 do not have the same background and qualifications in general as candidates selected, trained, and placed by LIFT. Average compensation for teleworkers with disabilities who are placed through LIFT is \$60,000 but there are individuals who earn considerably more. In contrast, entry level teleworkers with disabilities performing customer service tasks at other employers are paid less than \$20,000 at times. Some employers provide an array of fringe benefits whereas others do not. All types of options should exist so that different candidates can achieve their respective employment goals, whether they are trained as an application programmer, software engineer, customer service representative, or helpline agent and whether they are seeking part-time or full-time positions.

Implications for Practice

Appendix A shows a number of the key dimensions (shown as rows) which STRIDE staff believe may be useful in describing individual teleworking initiatives and approaches. Values are provided for each case for each of the dimensions, most frequently as a dichotomy, indicating either the presence (“x” in the cell) or absence (nothing in the cell) of the practice or activity in a program. For example, the second row is “Third party training prior to hiring.” That occurs in three of the programs and is shown by the presence of an “x” in the cells for Arise, United Way 211, and LIFT. In the other telework programs, there is no third party training prior to hiring, and that is indicated by blank cells.

Because of the wide variety of case approaches, a comprehensive list cannot be developed of the necessary and sufficient elements for a successful telework program involving persons with disabilities.⁴⁶ At a minimum, however, STRIDE staff believe the following conditions strongly increase the likelihood of a successful initiative of teleworking by persons with disabilities:

- To ensure a pool of potential candidates, rehabilitation/referral agencies need a thorough understanding of telework, constraints and objectives of employers, and types of candidates best suited to telework.

⁴⁶ The earlier Wisconsin DOT and Tennessee Valley Authority initiatives were quite different than any of the cases developed for this project, which is another reason why staff believe successful programs cannot be reduced to a small number of essential elements.

- Employers must be involved early in the process to ensure they are guiding the effort, that necessary skills will be taught to candidates, and that the specific job tasks of the teleworkers are meeting employers' needs. Employers should be involved in the hiring process, particularly in determining which skills will be required. Employers also must understand at the outset that some persons with disabilities will require schedules to accommodate their medical appointments and disabilities and that some individuals may need employment supports.
- Teleworker candidates should receive customized training and employment supports for a specific employer, in addition to any basic training provided to all candidates. Customized training is required because the working environment and teleworkers' backgrounds will be vastly different in scope and length for a new hire with little or no prior work history, a new hire with related work history, and an existing employee who transitions to telework because of a disability challenge. Training also may be different depending on whether the person is teleworking full-time (or part-time) or is splitting time between an office and home.
- Employers that are reluctant to begin a telework program or hire new employees to telework should consider work trials or internships. These are often valuable as are part-time positions or splitting time between an office and home setting, if that is possible.
- Employee performance should be assessed early, ideally after one or two months, with appropriate remedial activities and further employment supports, if needed.

Because of the selection and recruitment process, individualized, customized training, and employment supports for some individuals, telework placement costs frequently will be twice those for the same population group who may not be teleworking. These additional costs require an employment agency or social service group to perform constant marketing of teleworking to a variety of employers.

The cases yielded other practical information for the future. There were findings from the cases that are somewhat at odds with either prevailing views or practices in the past. For instance, communication problems were not found to inhibit teleworking. Perhaps that should not be surprising given that a teleworker can communicate with his/her supervisor or co-worker not only by telephone and email but also via one of the instant messaging providers. Also few teleworkers seem to be worried about becoming isolated by working at home, and jealousy problems with co-workers who are not teleworking do not seem to exist.

Compared to the past, supervisory concerns about a teleworker not being as productive at home as in an office setting also appears to be less. No doubt there are many supervisors who still believe that an employee out of his line of sight will be less productive, but improved technology and methods for measuring employees' output make visual

oversight less necessary for many jobs. And if wary supervisors know their superiors are supportive of teleworking, then they are likely to be less concerned.

Prior telework experience also appears not to be the prerequisite that it was in the past. Now more organizations seem willing to place more emphasis on an employee's qualifications and aptitude than on their specific prior employment. Surely wider availability of technology and training have contributed to this more flexible outlook. Other issues that have surfaced in the past as inhibiting teleworking, such as legal liability for home accidents and ergonomic issues were hardly mentioned by any companies or teleworkers.

Teleworking also may not be the huge barrier to advancement as it once was thought to be. Few teleworkers in the cases thought their promotional opportunities would be restricted by teleworking, and company and organizational officials generally had the same views. Of course, the cases represent a set of companies and jobs that in many ways are unrepresentative of all companies and positions. And there were at least two teleworkers in senior positions who thought they may need to reduce their teleworking to advance. Teleworking, at least full-time teleworking, still appears to be uncondusive to managing large numbers of office-based employees. 47

What has been most remarkable across the cases has been the very small number of teleworkers who have cited any drawbacks from teleworking per se. While some teleworkers have been dissatisfied with their compensation levels and benefit packages, only a handful have identified problems which would not exist if they were in a comparable office-setting. These have been as minor as not having the same quality of office equipment or personal comfort levels due to temperature extremes. Most everyone else has been positive or very positive about their teleworking, whether they do it full-time or intermittently. Although some teleworkers interviewed in the cases were selected in all likelihood because of their favorable opinions, many others appeared to be quite willing to provide independent views about their companies and their work. Not one person indicated they definitely intended to stop teleworking.

For many reasons, most companies and teleworkers believe that teleworking will expand in the future. That is perhaps the most important implication of the cases for practice—the trend is definitely toward more companies becoming involved with telework and more positions being held by teleworkers.

Implications for Policy

For teleworking by persons with disabilities to be successful, there must be a congruence or positive fit between three elements: employee skills, employer needs, and specific job tasks. If there is incongruence in this fundamental fit, no amount of assistance will overcome the incongruity. Yet, if there is congruence, financial assistance will increase

47 This may be more than a perception problem. It may be a real problem currently, given the way work is managed hierarchically in most organizations.

the number of persons with disabilities who can be placed. And financial assistance will increase the success rate for placements. The question is: How should limited financial resources be invested?

Based on the placement process of STRIDE, the case studies, and our prior experiences, future funds for telework by persons with disabilities should be directed primarily to service provision by third-party organizations and companies. Our rationale for this recommendation is:

5. Third-party organizations have the specialized knowledge about telework involving disadvantaged populations;
6. Third-party organizations have established candidate flows of disadvantaged populations as they are frequently the primary types of clients served. They also understand the very different needs of individuals, some of whom wish to be employed full-time to obtain health and other benefits, some of whom wish to earn below \$700 monthly to maintain current SSDI benefits, and some of whom are free to alter their schedules as they have benefits provided by spouses.
7. Third-party organizations should be able to access funds from state and federal government agencies that provide daily services to persons with disabilities. Obtaining such funds for workplace accommodations was a need identified by numerous teleworkers in the case studies.
8. At least some third-party organizations can provide the basic skills (writing and editing, phone etiquette, work simulation), customer service, problem solving, and computer training necessary for a telework position. In the absence of such training, which is rarely provided by a company, the candidate pool will be limited to individuals with recent jobs or higher-skilled individuals.
9. Third-party organizations often can provide employment supports, if necessary: job coaching, case management, etc. which can be quite important for individuals who have usually been out of the workforce for between 1-10 years. And the third party agency can work with the employer to help the teleworker troubleshoot and resolve other issues that arise both before and after employment.
10. Finally, employer involvement is likely to be strongest and most long-lasting when it is developed and secured in collaboration with a third-party organization over a period of years. Sporadic placement efforts usually prove ineffective.

An alternative would be to allocate funds to employers that then obtain services through contractual agreements with third-party organizations. This is likely to be more expensive, and we do not see how that would be superior in practice to providing the funds directly to third-party organizations.

Funding should be available to support rehabilitation programs and the individuals they serve who wish to become teleworkers. We see no justification for restricting assistance only to a certain group such as individuals who may require less inexpensive assistance, or those who may require more intensive and more costly assistance, or individuals seeking certain types of telework positions. 48 Choosing between targeting funds only to either entry-level applicants with mild disabilities or to individuals with severe disabilities who are attempting to re-enter the workforce is inappropriate. While a greater number of entry-level individuals with mild disabilities might be assisted, because the training will be less intensive and the financial supports, if any, for start-up costs will be lower, the needs of returning servicemen with more severe disabilities may be more acute. Also, while there appears to be a greater need and desire among employers for entry-level positions (customer service, word processing, scheduling), there are telework jobs available for persons with disabilities who have stronger credentials in information technology and research.

There are numerous challenges to teleworking by persons with disabilities. Many individuals have had long periods of unemployment, suffer from low self esteem, have fatigue and stamina constraints, do not possess fundamental job skills, possess unrealistic employment expectations, and require assistance and support as they re-enter the workforce. Yet, the potential of teleworking for individuals with disabilities is beginning to be realized. The conceptual leap for many businesses and organizations is no longer the issue, now that teleworking has become more common. No longer is it a question of responding to “why do this” as it is of “how do we do this?” Although we have yet to move entirely away from the “early adopters” stage of an innovation, many more organizations are now beginning to have at least a handful of teleworkers with disabilities. With appropriate financial assistance, many more individuals with disabilities could enter productive teleworking employment positions. Regardless of whether their disability was related to military training, teleworking for persons with disabilities is increasingly a viable option that helps individuals, employers, and society.

48 Besides some fundamental personal traits such as diligence, perseverance, and scheduling responsibility, there was minimal unanimity about what characteristics are most important for successful teleworking.

Appendix A1--Key Dimensions of Case Studies

	<u>Hartford CSG</u>	<u>United Way 211</u>	<u>Arise</u>	<u>Anonymous</u>	<u>State of Arizona</u>	<u>LIFT, Inc.</u>	<u>Service 800</u>
<u>Recruitment and Selection</u>							
Third-party recruitment, screening		x	x			x	
Third-party training prior to hiring		x	x			x	
Company recruitment, screening	x			x	x		x
Website application process	x		x			x	x
<u>Disability hiring emphasis for teleworking</u>							
New employees only/primarily new employees		x	x			x	x
Both new and existing employees							
No hiring emphasis per se on persons with disabilities	x		x	x	x		x
Prior experience in-house required before teleworking	x					x	
<u>Primary characteristics of new hires</u>							
Entry-level or medium-level skills	x	x	x		x		x
Professional, high-level of skills and qualifications				x	x	x	
<u>Primary organizational purposes</u>							
Widen applicant pool/provide highly qualified employees	x	x	x	x		x	x
Reduce costs (office space etc.)	x	x	x				x
Transportation/commuting reduction for region (not for employee)					x		
Accommodate individual's needs	x	x		x	x	x	x
Widen organizational services	x	x	x	x			x
Maintain loyalty, morale of employees	x			x	x	x	x
<u>Employment Arrangement</u>							
Company employee	x			x	x	x	x
Third party contract employee (short-term)						x	
Third party or contractual employee (long-term)		x					
Self-employed			x				

	<u>Hartford CSG</u>	<u>United Way 211</u>	<u>Arise</u>	<u>Anonymous</u>	<u>State of Arizona</u>	<u>LIFT, Inc.</u>	<u>Service 800</u>
<u>Work Hours</u>							
Full-time generally, with telework on intermittent basis				X	X		
Full-time generally, with definite off-site schedule	X					X	
Part-time generally, all off-site		X					X
No predominant pattern, all off-site			X				
<u>Compensation</u>							
Hourly or annual	X	X	X	X	X	X	X
Variable in some way	X		X				
<u>Benefits</u>							
Provided by company	X			X	X		X
Provided initially by third party; then by company						X	
No health benefits provided to individual		X	X				X
Non-traditional benefits (tax assistance)			X				
<u>Promotional Opportunities</u>							
Yes	X		X	X	X	X	X
No		X					
<u>Technology Dependence</u>							
Substantially technology-driven or technology-dependent	X	X	X			X	X
Technology-neutral or technology-incidental				X	X		
<u>Post-Hiring Support</u>							
Provided to persons with disabilities							
Limited	X	X	X	X			X
Substantial						X	
Provided to company or its supervisors						X	

	Hartford CSG	United Way 211	Arise	Anonymous	State of Arizona	LIFT, Inc.	Service 800
Teleworking rules and procedures							
decentralized (d) OR centralized (cn)	cn	cn	cn	d	d	d	cn
Record-keeping--							
Number of employees with disabilities known formally	x	x				x	x
Degree of emphasis on off-site employment							
High		x	x				x
Medium	x			x		x	
Low					x		
Performance measures							
Increase in number of teleworkers over time	x		x	x	x	x	x
Renewal of contract		x					
Absenteeism improvement	x	x				x	
Long-term reduction in turnover	x					x	x
Opportunity for substantial further placements							
No							
Only as organizational/agency employment expands				x	x		
Off-shore and outsourcing limits expansion						x	
Yes							
Other communities developing 311 and 211 systems		x					
Company has been expanding	x		x				x

Recommendations for assistance by federal/state governments							
Assistance for technology start-up costs (individuals and non-profits beginning telework for new teleworking hires)	x	x	x			x	x
Assistance for start-up expenses of employment/incorporation			x				
Tax relief for hiring disabled employees			x			x	x

Teleworker Productivity and Expectations

This section of the survey contains questions related to expectations regarding the challenges and opportunities of teleworking. Please think carefully concerning your expectations. Do you believe that the items listed below will increase, decrease or stay the same over the next 6 months? Questions will be measured on the following five point scale:

- 1 Will increase significantly
- 2 Will increase somewhat
- 3 Won't change
- 4 Will decrease somewhat
- 5 Will decrease significantly

- 1.92 The time I spend working on tasks and objectives
- 3.74 The amount of time per day lost to interruptions
- 2.68 My involvement in community activities
- 1.56 My opportunities for career development and advancement
- 1.78 The quality of my home life
- 1.90 The quality of employer support services (e.g., secretarial, general office support).
- 2.12 My ability to maintain my health
- 2.32 My ability to manage my disability symptoms
- 3.70 My incentives to stay on public financial assistance

Job Supports

1a. Do you anticipate you will receive assistance from rehabilitation counselor, employment specialist, other professional, or family member in performing your telework job?

- 40 Yes
- 9 No (What do you need _____)

1b. If 'yes', do you currently receive assistance (circle one):

Employment Specialist Currently use (16) Previously used (1) Never used (8)

VA or WC

Rehabilitation Counselor Currently use (16) Previously used (3) Never used (11)

Rehabilitation Engineer Currently use (6) Previously used (1) Never used (17)

Family Member Currently use (11) Previously used (1) Never used (8)

Other (describe: _____) Currently use Previously used Never used

Conclusion

1. Do you see any advantages to teleworking for either yourself or your employer?
If yes, please describe these.

2a. What about disadvantages? 16 Yes 28 No

2b. If yes, what are they?

3. Is there anything else you would like to add about telework issues we have discussed so far?

Appendix C

Teleworker Survey: AT PLACEMENT

Type of Work

Name of position:

How many other teleworkers do you know of in your department/ company? _____

What is your work status? Please check the appropriate blank(s)

5 Company employee 11 Contractor 2 Temporary employee

0 Work on call or as needed

Total # work hours per week 13 respondents reported working 15 – 30 hours

Approximate total # of weekly hours spent teleworking: 20.91 hours on average

Total number of weekly hours worked at corporate site 6.56

Please describe your telework schedule:

0 Work a specific shift (Example: 9 to 5; 12 to 4 pm)

7 Able to telework on a flexible basis, supervisor approved

10 Able to telework on a flexible basis, I determine when I work

Teleworker Productivity and Expectations

This section of the survey contains questions related to your expectations regarding the challenges and opportunities of teleworking. Please think carefully concerning your expectations. Do you believe that the items listed below will increase, decrease or stay the same?

- 1 Will increase significantly
- 2 Will increase somewhat
- 3 Won't change
- 4 Will decrease somewhat
- 5 Will decrease significantly

- 2.06 The time I spend working on tasks and objectives
- 2.27 The number of hours I spend working per day
- 3.06 The amount of time per day lost to interruptions
- 2.17 The quality of my home life
- 2.35 The quality of employer support services (e.g., secretarial, general office support).
- 2.38 The quality of my relationships with my co-workers
- 1.83 The quality of my relationships with my customers
- 3.32 My level of job stress
- 1.72 My overall job satisfaction
- 2.41 The amount of discretionary income I have
- 2.28 My ability to maintain my health
- 2.41 My ability to manage my disability symptoms
- 3.73 My incentives to stay on public financial assistance
- 2.72 My involvement in community activities
- 2.00 My opportunities for career development and advancement

Job Supports / Training

1a. Do you anticipate you will receive assistance from a rehabilitation counselor, employment specialist, other professional, or family member in performing your telework job?

- 9 Yes
- 9 No (What do you need _____)

1b. If 'yes', do you currently receive assistance (circle one):

Employment Specialist	Currently use (3)	Previously used (3)	Never used (3)
VA or WC			
Rehabilitation Counselor	Currently use (6)	Previously used (4)	Never used (1)
Rehabilitation Engineer	Currently use (0)	Previously used (2)	Never used (5)
Family Member	Currently use (4)	Previously used (1)	Never used (3)
Other (describe:_____)	Currently use	Previously used	Never use

2a. What was most valuable during the telework training? -

2b. What was least valuable?

2c. How well did the job-seeking skills training prepare you to interview and obtain a job?

Level of Economic Rewards

1. Compared to the type of job you last had, is the money you will earn from teleworking:

3 More 6 Comparable 6 Less 2 Not Sure 1 N/A

2. Do you feel that you will be getting paid as much as you expected when you started the program?

11 Yes 6 No

Travel Patterns

In a typical week, please indicate the amount that the following applies to you:

ITEM	Hrs or Days/Week
1. Drive alone	Days/week
2. Public transportation (city bus, lightrail)	Days/week
3. Metro Mobility	Days/week
3. Car or van pool	Days/week
4. Bicycle	Days/week
5. Walk/Run/Skate	Days/week
6. Motorcycle	Days/week
7. Work from home	Days/week

8. How many hours of travel time do you spend commuting to work each week?	Hours/week
9. Actively providing dependent care	Hours/week
10. Commuting time spent dropping off dependents	Hours/week
11. Other (Please specify) (dry-cleaning, etc.)	Hours/week

Conclusion

1. Do you see any advantages to teleworking for either yourself or your employer?

17 Yes 1 No

If yes, please describe these for me.

2a. What about disadvantages? 7 Yes 10 No

2b. If yes, what are they?

3. Is there anything else you would like to add about telework issues we have discussed so far?

Appendix D Teleworker Survey: 6 MONTHS AFTER PLACEMENT

Type of Work

Name of position: _____

How many other teleworkers do you know of in your department/
company? _____

What is your work status? Please check the appropriate blank(s)

____ Company employee ____ Contractor

____ Temporary employee ____ Work on call or as needed

Total # work hours per week _____

Approximate total # of weekly hours spent teleworking: _____

Total number of weekly hours worked at corporate site _____

Please describe your telework schedule:

__ Work a specific shift (Example: 9 to 5; 12 to 4 pm)

__ Able to telework on a flexible basis, supervisor approved

__ Able to telework on a flexible basis, I determine when I work

Teleworker Productivity

This section of the survey contains questions related to your expectations and experiences regarding the challenges and opportunities of teleworking. Please think carefully about whether these issues have increased or decreased over the last 6 months. Questions will be measured on the following five point scale:

- 1 Has increased significantly
- 2 Has increased somewhat
- 3 Hasn't changed
- 4 Has decreased somewhat
- 5 Has decreased significantly

- 2.00 My ability to get work finished on time
- 2.25 The quality of my relationship with my supervisor
- 2.25 The time I spend working on tasks and objectives
- 1.88 The quality of my work
- 2.00 My productivity
- 1.88 The quantity of work I produce
- 2.38 The number of hours I spend working per day.
- 2.38 My overall job satisfaction
- 2.94 My ability to maintain my health
- 2.75 My ability to manage my disability symptoms
- 3.00 My incentives to stay on public financial assistance
- 2.13 My time management skills
- 1.88 My ability to meet customer needs
- 2.38 The amount of time per day lost to interruptions
- 2.25 The quality of my home life
- 3.25 My level of job stress
- 2.75 The quality of employer support services (e.g., secretarial, general office support).
- 2.88 The amount of discretionary income I have
- 2.14 The quality of my relationships with my co-workers
- 3.13 My involvement in community activities
- 1.88 The quality of my relationships with my customers
- 2.38 My opportunities for career development and advancement
- 1.88 My overall effectiveness in my job

1. I believe that my supervisor has ample opportunity to monitor my work and effectively evaluate my performance.

- 1 Strongly disagree
- 2 Disagree
- 3 Neutral
- 4 Agree
- 5 Strongly Agree

2a. Would you say you get more work done at home or at the workplace?

- 1 At home
- 2 At the workplace

- 3 Not applicable (Always work at home)
- 4 Not applicable (New contractor/independent agent)

2b. Why?

2c. On what do you base this assessment?

Job Satisfaction

This section of the survey measures your level of job satisfaction. Job satisfaction changes from time to time; we are asking you to think about your average or general level of job satisfaction over the past 6 months. These questions ask about your job as a whole, not just telework. Please use the following five point scale:

- 1 Very dissatisfied
- 2 Dissatisfied
- 3 Neutral
- 4 Satisfied
- 5 Very Satisfied

- _____ Overall job satisfaction?
- _____ The encouragement employees are given to participate in decisions that affect their work
- _____ Your office technology (e.g., computer hardware and software, other necessary office equipment) and technical support (e.g., repairs needed to computers and other office equipment)
- _____ The level of recognition you get for the work you do
- _____ The support services provided by your employer (e.g., general secretarial support, copy services, taking messages)
- _____ Your relationship with your supervisor
- _____ Your relationship with your co-workers
- _____ Your wages or salary
- _____ Your career opportunities for advancement
- _____ Your ability to get the information you need to complete your job tasks
- _____ Your ability to stay informed about departmental and organizational events and activities

Please answer the questions below in the context of your telework hours.

1. How satisfied do you feel with the control you have over scheduling when you work?

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Very Satisfied	Fairly Satisfied	Fairly Unsatisfied	Very Unsatisfied	N/A

2. If applicable, how satisfied do you feel with teleworking as compared to office work?

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Very Satisfied	Fairly Satisfied	Fairly Unsatisfied	Very Unsatisfied	N/A

Job Loyalty

In this section we will be asking you a series of questions you may either agree or disagree with. We realize that your attitudes to these issues may change over time, so we again ask that your response not necessarily indicate what you are feeling today, but rather what your average or general level of feeling has been since the program began.

(If you are a contractor, mark here _____ and skip to the “Barriers Encountered” section.) Please refer to the following five point scale when answering these questions:

- 1 Strongly disagree
- 2 Disagree
- 3 Neutral
- 4 Agree
- 5 Strongly Agree

____ Most of the time, it is clear to me what my work priorities and tasks are

____ I feel very loyal to the organization.

____ I could just as well be working in a different organization as long as the type of work were similar.

____ It would take very little change in my present circumstances to cause me to leave this organization.

____ For me, this is the best of all possible organizations for which to work.

____ I intend to stay with this organization for a long time.

Barriers Encountered

1. Please check any of the following which has been a barrier or has impeded your productivity. (Check all that apply.)

- Poor relationships with co-workers
 - Poor relationships with supervisor
 - Distractions at home
 - Inadequate office equipment, software, telecommunication devices
 - Inadequate computer connectivity
 - Health and disability complications
 - Fatigue and stamina challenges
 - Challenges in multi-tasking
 - Inadequate support services
 - Excessive work
 - Inadequate contact with co-workers, team leaders and supervisor
 - Inadequate training
 - Increased job stress
 - Increased anxiety to perform
 - Isolation
 - Inadequate income
 - Other
-

Level of Telework Social Integration

Please answer the questions below in the context of your telework hours.

1a. What method do you use most frequently to keep in touch with your supervisor?

- 1 Email
- 2 Phone
- 3 Conference calls
- 4 Web based interchanges
- 5 Meetings
- 6 Other _____

1b. Do you have regularly scheduled meetings?

- Yes No

1c. If yes, do you meet in the office or do you have “meetings” over the phone, or some other way?

_____ In the office, face to face

_____ From home using the telephone

_____ Other (Specify.)

2a. How do you keep in touch with co-workers?

- 1 Email
- 2 Phone
- 3 Conference calls
- 4 Web based interchanges
- 5 Meetings
- 6 Other _____

2b. Do they contact you when you're teleworking?

__ Yes __ No

2c. Do they seem reluctant to do so?

__ Yes __ No

3. Is the amount of contact you have with co-workers, team leaders, and/or supervisors sufficient to do your job?

__ Yes __ No __ N/A

4. Is the amount of contact you have with co-workers, supervisors, and/or team leaders sufficient to allow you to learn what you need to know to advance within the organization?

__ Yes __ No __ N/A

5. If you are an independent contractor, is the amount of contact you have with the individuals with whom you have contracted sufficient to do your job?

Yes No N/A

6. How much *opportunity* do you have to socialize during your workday with co-workers, supervisors and/or team leaders?

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Lots	Some	Little	None	N/A

7. How *often* do you take advantage of opportunities to socialize with co-workers, supervisors and/or team leaders?

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Frequently	Occasionally	Rarely	Never	N/A

8. The amount of socializing you have with co-workers, supervisors and/or team leaders not related to work tasks is:

- More than I would like
- About as much as I would like
- Not as much as I would like
- Not applicable

9. How satisfied are you with the balance of time between domestic responsibilities and work duties?

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Very Satisfied	Fairly Satisfied	Fairly Unsatisfied	Very Unsatisfied	N/A

Job Supports /Training

1. Do you feel that you have the equipment, furniture and physical arrangements to do your telework job?

- Yes
- No (What do you need _____)

2a. Do you receive assistance from a rehabilitation counselor, employment specialist, other professional, or family member in performing your telework job?

- Yes
- No (What do you need _____)

2b. If 'yes', which currently provide you assistance (circle one):

Employment Specialist (3) Never used	Currently use	Previously used
VA or WC Rehabilitation Counselor (3) Never used	Currently use (2)	Previously used
Rehabilitation Engineer Never used	Currently use (1)	Previously used (2)
Family Member Never used	Currently use	Previously used
Other(describe: _____) used Never used	Currently use	Previously used

Training

2a. What was most valuable during the telework training? -

2b. What was least valuable?

2c. How well did the job-seeking skills training prepare you to interview and obtain a job? -

Level of Economic Rewards

1. Compared to similar jobs in office settings, is the money you earn from teleworking:

More Comparable Less Not Sure N/A

2. Do you feel that you are being paid as much as you expected when you started the program?

Yes No

Travel Patterns

In a typical week, please indicate the amount that the following applies to you:

ITEM	Hours or Days/Week
1. Drive alone	Days/week
2. Public transportation (city bus, lightrail)	Days/week
3. Metro Mobility	Days/week
3. Car or van pool	Days/week
4. Bicycle	Days/week
5. Walk/Run/Skate	Days/week
6. Motorcycle	Days/week

7. Work from home	Days/week
8. How many hours of travel time do you spend commuting to work each week?	Hours/week
9. Actively providing dependent care	Hours/week
10. Commuting time spent dropping off dependents	Hours/week
11. Other (Please specify) (dry-cleaning, etc.)	Hours/week

Conclusion

1a. Do you see any advantages to teleworking for either yourself or your employer?

Yes No

1b. If yes, please describe these for me.

2a. What about disadvantages?

Yes No

2b. If yes, what are they? -

3. Is there anything else you would like to add about telework issues we have discussed so far?

Appendix E

Supervisor Survey: AT PLACEMENT

Type of Work

Name of position: _____

How many other teleworkers do you supervise in similar positions?

What is the teleworker employment status? Please check the appropriate blank(s)

____ Company employee ____ Contractor ____ Temporary employee

____ Work on call or as needed

Total # work hours per week _____

Approximate total # of weekly hours spent teleworking: _____

Total number of weekly hours worked at corporate site: _____

Please describe the teleworker schedule:

____ Work a specific shift (Example: 9 to 5; 12 to 4 pm) – supervisor approved

____ Able to telework on a flexible basis, supervisor approved

____ Able to telework on a flexible basis, I determine when I work

Telework Expectations

This section of the survey contains questions related to your expectations regarding the challenges and opportunities of teleworking. Please think carefully about whether you expect that the teleworker will satisfy your expectations over the next 6 months. Questions will be measured on the following five point scale:

- 1 Will exceed my expectations
- 2 Will satisfy my expectations easily

- 3 Will satisfy my expectations
- 4 Will not satisfy my expectations easily
- 5 Will fall far short of my expectations
- 6 Will not apply

- _____ The teleworker's level of productivity
- _____ The teleworker's level of job satisfaction
- _____ Teleworker's ability to meet deadlines
- _____ The quality of my relationship with the teleworker
- _____ The time the teleworker spends on tasks and objectives
- _____ The number of hours the teleworker spends working per day
- _____ The amount of time per day that the teleworker loses due to interruptions
- _____ The opportunities I have to talk with the teleworker I supervise
- _____ My ability to amply monitor my employee's work and effectively evaluate their performance
- _____ The potential to benefit this company/organization/agency
- _____ The effects on the morale among co-workers.
- _____ The ability for the teleworker to manage their disability
- _____ The ability to provide improved customer coverage and hours

Teleworker /Coworker Morale

What are the issues you expect to encounter while supervising teleworkers?

Type of Work

Name of position: _____

How many other teleworkers do you supervise in similar positions?

What is the teleworker employment status? Please check the appropriate blank(s)

____ Company employee ____ Contractor ____ Temporary employee

____ Work on call or as needed

Total # work hours per week _____

Approximate total # of weekly hours spent teleworking: _____

Total number of weekly hours worked at corporate site: _____

Please describe the teleworker schedule:

____ Work a specific shift (Example: 9 to 5; 12 to 4 pm) – supervisor approved

____ Able to telework on a flexible basis, supervisor approved

____ Able to telework on a flexible basis, I determine when I work

This section of the survey contains questions related to changes that have occurred since telework began. Please think carefully about how you feel about each of these issues. Questions will be measured on the following five point scale:

- 1 Has increased significantly
- 2 Has increased somewhat

- 3 Hasn't changed
- 4 Has decreased somewhat
- 5 Has decreased significantly

- _____ The teleworker's level of productivity
- _____ The teleworker's level of satisfaction
- _____ Teleworker's ability to meet deadlines
- _____ The quality of my relationship with the teleworker
- _____ The teleworker's level of job stress
- _____ The teleworker's ability to maintain health
- _____ The teleworker's work absenteeism
- _____ The time the teleworker spends on tasks and objectives
- _____ The number of hours the teleworker spends working per day
- _____ The quality of teleworker's relationships with co-workers
- _____ The teleworker's opportunities for development and advancement
- _____ My ability to amply observe my employees and effectively evaluate their performance

1a. Do you think providing telework has allowed you to tap into a greater pool of skilled workers?

Yes No

1b. If so, how? -

2a. In your experience, does telework affect workflow?

Yes No

2b. In what way? [*Positive, negative consequences? No change?*]

3. Overall, have you noticed any effect on organizational operating costs as a result of teleworking? [*Space use, employee turnover, absenteeism, equipment costs*]

- 1 Yes, large increase
- 2 Yes, slight increase
- 3 No
- 4 Yes, slight decrease
- 5 Yes, large decrease

4. In your opinion is the cost of teleworking (e.g. equipment purchase, etc) offset by operating cost savings? [Probe: *That is, are teleworking expenses offset by other advantages?*]

Yes No

5a. Would you say that there is, in general, a strong sense of community in your workplace?

Yes No

5b. Has teleworking had any affect on it?

Yes No

5c. In what way?

Issues Encountered in Supervising Teleworkers

In this section we are interested in your general reactions to telework. We ask that you respond to the statements using the following five point scale:

- 1 Strongly disagree
- 2 Disagree
- 3 Neutral
- 4 Agree
- 5 Strongly Agree

_____ I have opportunities to talk with the teleworker I supervise

_____ I believe telework has had no effect on my ability to amply observe my employee's work and effectively evaluate their performance

_____ I believe that there are disadvantages within my unit due to telework.

_____ I believe that telework has lead to a loss of supervisory control over my employees

_____ I believe that telework has increased the level of trust between myself and my employees

_____ Telework has the potential to benefit this company/organization/agency

_____ Telework has negative affects on the morale among co-workers.

1a. Are you aware of any problems between teleworkers and co-workers/non-teleworking staff? [*Do you sense any resentment on the part of co-workers?*]

Yes No

1b. If so, what are they?

Measurement of Teleworker Productivity/Comparison of Co-Worker Performance

In order to evaluate the effectiveness of the demonstration sites, we need to compare employee performance upon beginning telework and performance 6 months after a teleworker has been placed. We ask that you answer the following performance based questions as if you were evaluating your telework employee for a performance review.

The following is a percentile scale and should be interpreted as follows: If you believe the employee in question performs better than 10 percent of individuals with similar duties and responsibilities, you should mark a “2”. If however, you believe that she/he performs better than 75 percent, you should mark a “5”.

Extremely low

Extremely high

1st percentile 10th 25th 50th 75th 90th 99th percentile
 1-----2-----3-----4-----5-----6-----7

- Please rate the employee’s overall level of performance _____
- Please rate the quality of the employee’s output _____
- Please rate the quantity of this employee’s output. _____
- Please rate the employee’s overall level of effort. _____
- Please rate the employee’s overall level of timeliness in completing projects or assignments. _____

- Please rate this employee’s level of teamwork _____
- Please rate this employee’s level of technical proficiency _____
- Please rate this employee’s level of dependability. _____
- Please rate this employee’s absenteeism compared with their non-teleworking co-workers. _____

1a. Do you perceive teleworkers to be *more*, *less or* *about the same in productivity* than non-teleworkers in the same job?

- 1b. Is this a gut feeling or based upon performance evaluation?
- 1 Gut feeling
- 2 Based upon performance evaluation

3 Cannot say, it is a newly created job in which no one else has worked.

1c. If based on a performance evaluation, what measures were used to make your assessment?

1. In your opinion do you expect managing teleworkers to be *easier, more complex or about the same* as managing on-site employees?
 - How do you expect it will be different?
 - Do you anticipate you will have to acquire new skills in order to manage teleworkers?
 - What skills do you expect are particularly necessary to *effectively* manage telecommuters?

2. Do you plan to have regularly scheduled meetings?
 - In the office, or while they're teleworking?
 - Have you established any rules/guidelines for coworker/teleworker communications? [*Probe: Do you expect daily contact by email? Phone?*].

3. Compared with on-site employees, do you expect to have to do anything special to maintain good interpersonal relations and/or communications with teleworkers?

4. Have you, or your organization, implemented any specific control systems for managing teleworkers? [*Probe for IT-related control systems – e.g. computerized tracking of data use, etc.*]
 - If **yes**, please describe how these work.

5. What do you expect will be the biggest challenge you will face in managing teleworkers?

6. Do you anticipate any particular advantages of employee telecommuting for your organization as a whole?
 - If **yes**, what are they?
 - What about for your particular department?
 - Do you anticipate any disadvantages?
 - If **yes**, what are they?

7. What obstacles do you anticipate?

8. Have you considered how you will address them?

Job Satisfaction

Overall, how satisfied are you with your job?

How satisfied are you with:

- The level of recognition you get for the work you do?
- Your ability to get the information you need to complete your job tasks?
- The number of hours you work/ your use of time
- Your job or project responsibilities (Can you take on more or are you doing too much?)
- The amount of assistance you get from co-workers, supervisors, and/or team leaders
- The amount of feedback you get from co-workers, supervisors and/or team leader
- The amount and type of supervisor coaching provided

Overcoming Obstacles

1. What challenges have you experienced in working at home?

- Keeping a set work schedule
- Family or housemate interruptions
- Neighborhood distractions
- Switching work materials between offices
- Feeling isolated
- Managing time for medical appointments and work
- Managing disability symptoms and workload

- Need for more support on the job from employers
- Need for more support on the job from rehabilitation staff
- Interactions with co-workers/customers

2. How have these been overcome?

Level of Telework Social Integration

1. Is the amount of contact you have with co-workers, team leaders, and/or supervisors sufficient to do your job?

2. Do you feel that telework isolates you socially in comparison to office work?

3. Do you have the *opportunity* to socialize during your workday with co-workers, supervisors and/or team leaders?

4. Do you take advantage of opportunities to socialize with co-workers, supervisors and/or team leaders?

- How frequently?
- Is that sufficient? Too much? Not enough? Doesn't it apply?

5. Do you feel lonelier doing telework compared to office work?

6. Has teleworking led you to feel isolated from co-workers?

Placement Process

1. How satisfied are you with the placement process?

- Did it anticipate and address the aspects necessary for a smooth transition into your telework position?
- Was it too slow? Too fast?
- How many placement opportunities were you provided?

- How well does the job fit with your disability needs?

2. Was there anything you needed to know about the workplace that you did not learn in training or know already?

- If yes, what is it?
- How was it most helpful? How could it be improved?

3. How was your telework schedule decided?

- Supervisor preferred
- Teleworker preferred
- Flexible to meet changing workload
- Other

This document was developed by the Midwest Institute for Telecommuting Education and the Hubert H. Humphrey Institute of Public Affairs, funded by a grant agreement from the U.S. Department of Labor, Office of Disability Employment Policy (Number 17.720). The opinions expressed herein do not necessarily reflect the position or policy of the U.S. Department of Labor. Nor does mention of trade names, commercial products, or organizations imply the endorsement by the U.S. Department of Labor.

