Oregon Office of Energy's Telework Program Evaluation

Special Thanks &
Acknowledgements

Community Planning Workshop wishes to thank the following individuals for their assistance with this evaluation.

Barbara Bonnem, Oregon Office of Energy

Kathy King, Oregon Office of Energy

Bill Barber, Metro

Kelley Webb, Metro

Caleb Winter, TriMet

Susan Drake, Oregon Department of Environmental Quality

Community Planning Workshop Staff

Project Manager:

Jennifer Curkendall

Research Team:

Naoko Atsusaka

Allison Thayer

Valerie Vanecek

Judy Williams

Project Advisor:

Robert Parker, Program Director, Community Planning Workshop

Oregon Office of Energy's Telework Program Evaluation

Table of Contents

Executive Summary

Metro, the regional governing organization for the Portland region, is responsible for regional transportation planning. One of the programs Metro implements a Transportation Demand Management (TDM) program, which provides funding for transportation alternatives that reduce peak-hour demand such as bicycling, walking, taking public transit, carpooling, vanpooling, and *telework*.

Teleworkers represent a small but significant part of the workforce. Telework is believed to reduce the number of automobile trips, and thus conserve energy, relieve congestion, and improve air quality. Telework is defined as working at home or at an office near home one or more days of the week instead of commuting to a primary place of work. For the past 10 years, the Oregon Office of Energy (OOE) has provided technical assistance and outreach services on telework to organizations in the Portland region.

Purpose

In June 2001 Metro provided OOE with a grant in the amount of $240,000[1] to provide telework outreach and services in the Portland metropolitan area. OOE's agreement with Metro requires an evaluation of the effectiveness of technical assistance and outreach efforts implemented as part of the Telework Program. OOE contracted with the Community Planning Workshop (CPW) at the University of Oregon to conduct this program evaluation.

This evaluation has two key goals: (1) evaluating the effectiveness of the OOE's Telework Program outreach efforts; and (2) identifying key components that increase the effectiveness of the program implementation. This evaluation also offers recommendations for increasing program effectiveness

CPW gathered information on telework and OOE's assistance efforts from three primary sources: OOE and other agencies involved in telework; employers in the Portland area; and employees in the Portland area through focus groups, interviews, two surveys, and an email questionnaire.

---

[1] $200,000 of this grant amount came from federal funding and the remaining $40,000 came from OOE's Business Energy Tax Credit.

Conclusions

From our research, CPW was able to develop a number of general conclusions about telework as well as conclusions about the implementation, outreach methods, and outcomes of OOE's outreach. Following are the three most significant conclusions in each of these categories.

General Conclusions

- Agencies, employers, and employees are motivated to participate in telework for different reasons and each have different concerns about telework and perceptions of telework's benefits.

- Management support and employees' demand for telework are two of the key components to initiating telework programs.

- Organizations have faced different barriers depending on the type of industry, as well as the size of organization.

OOE's Outreach

Program Implementation

- OOE's dedicated, enthusiastic, and motivated staff has taken a proactive approach in actively seeking out organizations to work with.

- Outreach takes time to be effective.

- OOE has successfully collaborated with DEQ, TriMet, and Metro in marketing telework to employers.

Outreach Methods

- The Business Energy Tax Credit (BETC) for telework is not an effective incentive to promote telework programs.

- OOE's outreach has been focused primarily at the management level of organizations.

- OOE has reached a variety of organizations indirectly and offers its services to all types of industries. Certain types of organizations have utilized OOE's assistance to a greater extent that other types of organizations.

Outcomes

- OOE has had contact with many organizations in the Portland region and has successfully made "telework/telecommuting" a household word.

- Many employees in the Portland area are choosing to telework.

- Telework does not appear to raise awareness of environmental issues associated with commuting, but organizations may adopt telework in part for environmental reasons.

Recommendations

Results of this evaluation suggest that telework has many benefits to agencies, employers, and employees. Given our conclusions, CPW feels public agencies should continue to promote telework as a Transportation Demand Management strategy. CPW developed the following set of recommendations for the continued implementation of a successful telework outreach program.

Marketing

- Pursue innovative approaches to indirect outreach.
- Continue/expand media exposure to telework.

Target Audiences

- Expand outreach to target non-ECO employers.
- Direct ECO employer outreach toward those employers with no teleworkers.
- Provide industry-specific and organizational size-specific materials.

Collaboration

- Continue and expand collaboration between OOE, Metro, DEQ, and TriMet as a telework marketing team.
- Diversify and expand the types of associations OOE works with in doing outreach.

Outreach Activities

- Provide examples of cost-based approaches to employers.
- Update outreach materials to address the most current issues.
- Improve upon current documentation of outreach efforts.
- Evaluate the Business Energy Tax Credit (BETC) Program to determine who is using it and for what types of projects.

Sustainability of the Telework Program

As OOE scales back its efforts in the Telework Program, Metro will need to decide what level of service they want to provide and what level of investment they want to make in telework as a TDM strategy. If little or no funding is invested in telework outreach, strategies will be primarily passive (i.e. providing website, sending kits when requested), and it is unlikely that telework will continue to grow significantly. If, however, funding were to continue at the same level, more active outreach, which appears more effective, could continue to be offered—including presentations and consultations.

.

Oregon Office of Energy's Telework Program Evaluation

<div align="right">

Chapter 1
Introduction

</div>

The Portland metropolitan region faces increasing demand for transportation facilities related to regional growth. Metro, the regional governing organization for the Portland region, is responsible for regional transportation planning. One of the programs Metro implements is a Transportation Demand Management (TDM) program. The purpose of the TDM program is to reduce vehicle miles traveled, traffic congestion, and air pollution levels in the Portland area. Metro's TDM program is consistent with the federal Clean Air Act requirements of 1990, the state Transportation Planning Rule (OAR 660-0012), and the state Employee Commute Options (ECO) Rules (OAR 340-242-0010 through 0290). The policies set forth in the TDM program direct transportation planning in the Portland metropolitan region and support funding for transportation alternatives that reduce peak-hour demand such as bicycling, walking, taking public transit, carpooling, vanpooling, and *telework*.

> **"Telework is working at home or at an office near home one or more days of the week instead of commuting to the main office or place of business."**
>
> *Oregon Office of Energy*

Teleworkers represent a small but significant part of the workforce. Telework is believed to reduce the number of automobile trips, and thus conserve energy, relieve traffic congestion, and improve air quality. Telework is defined as working at home or at an office near home one or more days of the week instead of commuting to a primary place of work.

For the past 10 years, the Oregon Office of Energy (OOE) has provided technical assistance and outreach services on telework to organizations in the Portland region. In 2001 OOE entered into an agreement with Metro to administer the technical assistance and outreach element of the Telework Program. OOE's role is to provide assistance to organizations including educational and training materials, consultations, presentations, training sessions, assistance with the Oregon Business Energy Tax Credit (BETC) program, and OOE's telework website.[2]

Purpose and Methods

OOE's agreement with Metro requires an evaluation of the effectiveness of technical assistance and outreach efforts implemented as part of the

---

[2] CPW uses the term "organizations" throughout this report to mean businesses, non-profit organizations, and government agencies.

Telework Program. OOE contracted the Community Planning Workshop (CPW) at the University of Oregon to conduct this program evaluation.

This evaluation has two key goals: (1) evaluating the effectiveness of the OOE's Telework Program outreach efforts; and (2) identifying key components that increase the effectiveness of the program implementation. This evaluation also offers a set of recommendations for increasing program effectiveness and successfully continuing the Telework Program after the grant period comes to the end.

CPW used accepted methods for program evaluation in this study. The program evaluation included the following of components:

Logic Model

CPW started the evaluation process by developing a logic model of the Telework Program. The logic model illustrates relationships and linkages between program inputs, outputs (activities and outreach effort), and outcomes of the Telework Program. This model is accompanied by a series of indicators that can be measured quantitatively and qualitatively. The logic model is described in more detail in Chapter 2.

Program Description

The program description builds from an analysis of existing data provided by OOE, a focus group with key staff of the agencies involved in the Telework Program, and a key-person interview. The program description presents a picture of what has been done by all agencies in terms of implementation.

Surveys

CPW developed and conducted surveys of employers[3] and employees in the Portland area. The purpose of the surveys was to quantitatively assess the perspectives of telework participants about different aspects of implementing telework in the workplace. In total, CPW received 192 employer surveys and 376 employee surveys.

Focus Groups

CPW conducted two focus groups with a total of 8 employers to discuss their perspectives on telework. These meetings provide qualitative insight of telework efforts, supplementing the survey results. Focus group participants were drawn from individuals that responded to the surveys. Due to scheduling difficulties, a supplemental email questionnaire was distributed to employees in place of additional focus groups. CPW received a total of 17 email responses from employees.

---

[3] The terms "employer" and "organization" are used interchangeably throughout this report.

Organization of Report

The remainder of this report is organized as follows:

- **Chapter 2: Evaluation Framework** provides general background about the Portland metropolitan region and telework to establish the evaluation framework of this study.

- **Chapter 3: Program Description** describes OOE's Telework Program history and implementation activities in depth.

- **Chapter 4: Employers' Perspective on Telework and OOE Outreach** presents the findings of the employer focus group and survey.

- **Chapter 5: Employees' Perspective on Telework and OOE Outreach** presents the findings of the employee survey and email questionnaire.

- **Chapter 6: Program Evaluation and Recommendations** discusses the conclusions from the findings of Chapters 3, 4, and 5 and presents recommendations for the Telework Program.

This report also includes the following appendices:

- **Appendix A: Agency Interviews** includes transcripts from the agency focus group and interview with Oregon Department of Environmental Quality staff.

- **Appendix B: Employer Survey Results** includes detailed survey results, a copy of the survey instrument with response frequencies, and transcription of responses to open-ended questions.

- **Appendix C: Employer Focus Group Results** presents transcripts from the employer focus group meetings.

- **Appendix D: Employee Survey Results** includes detailed survey results, a copy of the survey instrument with response frequencies, and transcription of responses to open-ended questions.

- **Appendix E: Employee Email Questionnaire Results** includes participants' responses to the supplemental email questionnaire sent to employees in place of focus group meetings.

<div align="right">

Chapter 2
</div>

Evaluation Framework

This chapter provides background information that sets the stage for the framework of this evaluation. It includes several components: (1) an overview of transportation issues in the Portland metropolitan region to provide an understanding of the need for transportation demand management and telework in the region; (2) an overview of what transportation demand management is and how it is implemented in the Portland metro area; (3) a literature review on how telework is defined for the purpose of this evaluation and recent trends in telework; and (4) the evaluation approach implemented by CPW to assess Oregon Office of Energy's (OOE) Telework Program.

The Portland Metropolitan Region

The Portland metropolitan region is the largest urban area in Oregon, covering approximately 460 square miles in Clackamas, Multnomah and Washington counties. The 1.3 million people living in the metro area represent 38% of Oregon's population. Population inside of the Portland metro urban growth boundary increased 24% from 1990 to 2000.[4]

As the population of the Portland metropolitan region continues to grow, traffic congestion is an important issue that must be addressed. An increase in daily travel time to and from residents' workplace is a potential impact of population growth and the traffic congestion that is likely to result. Table 2-1 shows that even with planned improvements, it will take considerably longer to commute than it does now according to the two-year study conducted by Metro and Oregon Department of Transportation (ODOT).

---

[4] Metro, "Economic Report to the Metro Council: 2000 - 2030 Regional Forecast DRAFT," September 2002. http://www.metro-region.org/library_docs/maps_data/2000_2030regionalforecastsept2002.pdf 4/5/2003.

Table 2-1. Portland Metro Region's 1994 Average Travel Time and Predicted Travel Time for 2015

Trip	1994 Travel Time (minutes)	2015 Travel Time (minutes)	Percent Increase
Portland to Hillsboro	30.7	36.6	19%
Portland to Wilsonville	24.4	30.4	25%
Beaverton to Wilsonville	20.1	26.1	30%
Portland to Gresham	26.7	31.1	17%

Source. Metro, "Traffic Relief Option Study: Traffic Congestion Obvious in Portland Region" brochure, Summer 1997.

Automobile trips to the work site are at the core of congestion and increased travel times for two reasons: 1) most commuters drive alone, and 2) most commuters travel during peak congestion hours. In 2000, 58% of commuters spent more than 20 minutes traveling each way to work, and 5% spent more than 1 hour each way.[5] Strategic transportation planning can help to mitigate negative impacts of growth such as increased traffic congestion and longer commute times. Without strategic transportation planning, these commute times will increase as the population grows and traffic congestion will become a greater problem in the Portland area.

In addition to the general increase in vehicle travel time and miles, single occupancy trips are another aspect of commuting time and congestion. Commuting to work is the main reason for single occupancy trips when compared with other driving purposes, such as leisure use, shopping, and family visits. U.S. Census data show that in 2000 72% of commuters in the Portland metro area commuted by single occupancy vehicles, further contributing to traffic congestion. Single occupancy vehicle use in the Portland metro area is significantly higher than that of other west coast cities. For example, single occupancy vehicle drivers account for 57% of Seattle commuters and 66% of Los Angeles' commuters.

Transportation Demand Management

Transportation Demand Management (TDM) refers to a broad set of policies and programs that work to reduce peak-hour demand on the road network. TDM strategies include rideshare programs, park and ride lots, telework, transit, biking, walking, and incentive programs to encourage alternatives to driving alone. TDM works to reduce the number of single occupancy vehicles on the road, therefore helping manage peak-hour traffic volumes.

---

[5] 2000 U.S. Census. www.census.gov 4/5/2003.

Oregon Office of Energy's Telework Program Evaluation

Metro's TDM program focuses on planning and funding alternative transportation methods to reduce the use of single occupancy vehicles. Metro's efforts support regional bicycle, pedestrian, carpooling, vanpooling, telework, and public transit improvements. TDM policies, associated with Metro, TriMet, Oregon Department of Environmental Quality (DEQ), and OOE, also help address the federal Clean Air Act requirements of 1990, the state Transportation Planning Rule, and Metro's role in the regional Employee Commute Options (ECO) Rules program.

Telework

The word telework, also called telecommuting, varies in definition among organizations and programs. Telework generally means that employees work at locations other than the traditional workplace (typically, their place of residence) one or more days per week. Telework is usually assumed to essentially eliminate the employee's commute on days that they telework. Thus, telework is one of the core strategies of the regional TDM program aimed to help limit the amount of traffic congestion, reduce gasoline consumption, and thus, improve air quality.

In 1997 Senate Bill 775 required that all State of Oregon agencies develop telework policies and consider employees requests to telework in relation to the agency's operating and customer needs. Moreover, telework is an option that Portland area employers can implement to comply with the ECO Rules adopted by the state Legislature in 1993. Implemented in 1996, the ECO Rules mandated that all organizations with 51 or more employees reduce the number of commute trips by 10% within three years.

> **The ECO Rules "asks Portland metro-area employers to reduce employee auto trips by 10 percent over three years by implementing programs that encourage employees to use alternatives to driving alone."**
>
> *TriMet Website*

This study uses the OOE's official definition of telework: "working at home or at a satellite office closer to home than the office one or more days a week instead of commuting to the main office or place of business." OOE also recognizes teleworkers as those who work from home less frequently or on an ad-hoc basis.

This evaluation focuses on wage or salary employees of an organization. In other words, employees of home-based businesses are not included as teleworkers. Most formal definitions of telework—including those of the State of Oregon and federal executive orders, laws, and programs—do not include home-based businesses.[6] Presumably the reason for this is that home-based businesses already require fewer or no vehicle trips while providing the flexibility of choosing work times and locations that

---

[6] US Department of Transportation. 1990; Joice, 2000; Sec. 359 of H.R. 4475.
Transportation Appropriations Act, signed into law October 23, 2002.
Oregon Department of the Environmental Quality. Employee Commute Options. (OAR 340-20-047)

salaried employees seek through telework. After-hours and non-scheduled (holiday) work from home is not defined as telework if the employee still spends a full day at the regular workplace.

Telework presents both benefits and costs to employers, employees, and the community as a whole. Benefits to employers include improved quality of work, higher employee morale and motivation, increased recruitment and retention of employees, less sick time and absenteeism, greater employment opportunities, reduced office and parking space needs, and an increased ability to meet air quality and transportation mandates. Employees benefit from increased job satisfaction, a savings of time and money, more balance between work and family, and less stress. Community benefits include the enhancement of economic development and sustainability, decreased traffic congestion, cleaner air, and conserved energy.[7]

One cost associated with telework for employers is the initial startup cost for training, equipment, and software. Other potential costs to employers include disruption to teamwork and organizational culture, security of information, information technology equipment support, employee safety concerns, and the difficulty of performance monitoring. Potential costs to employees include the disruption of the home work environment, and possibly, a feeling of isolation. There are not any identified costs to community as a whole.

Trends in Telework

Telework is an increasingly popular work option in the United States. In 1999, the Telework America National Telework Survey found that approximately 19.6 million Americans telework.[8] In 2001, a study sponsored by AT&T and managed by the International Telework Association and Council found that as of August 31, 2001 there are approximately 28 million Americans who telework.[9] This indicates that the number of teleworkers grew by 8.4 million in just two years. However, the definition of telework used for these studies is slightly different than that of OOE. In the 1999 study, teleworkers were defined as employees, or independent contractors who work at least one day per month at home during normal business hours. The 2001 study included those working at home, at a telework center or satellite office, working on the road, or a combination of these.

---

[7] InnoVisions Canada: Canadian Telework Association, *"Costs and Benefits."* http://www.ivc.ca/costbenefits.htm 4/5/2003.

[8] Joanne Pratt, International Telework Association and Council, "Telework America 1999 Summary," October 1999. www.workingfromanywhere.org/telework/twa1999.htm 4/5/2003.

[9] Donald D. Davis Ph.D. and Karen K. Polonko Ph.D., International Telework Association and Council, "Telework America 2001 Summary," October 2001. www.workingfromanywhere.org/telework/twa2001.htm 4/5/2003.

In 1999, US West/Qwest conducted a telephone survey in partnership with OOE and DEQ to assess telework among Oregon businesses. The study concluded that businesses' attitudes were mostly favorable toward the program, believing it will continue in the future. The conclusions in this survey were similar for all geographic areas in Oregon, except on the issue of congestion, which was considered the most severe in the Portland area. The study also showed that among the reasons for implementing telework programs is the need to attract new employees, the desire to try different work schedules, and the need to address traffic related problems (i.e. congestion, access, costs, etc.). Employers cited several benefits of telework including: improved employee morale, increased productivity and greater employee retention.[10]

Since 1990, the State of Oregon has conducted a biannual telephone survey of households in Oregon to collect information about socio-economic characteristics of state residents. The 2000 Oregon Population Survey asked several questions about telework/telecommuting. This data for Clackamas, Multnomah, and Washington Counties shows that more than 40% of Oregonians do work for their job at home. It also indicates that 16.6% of respondents work from home one to two days a week, and 10.4% work from home three or more days a week.

In 2002, researchers at University of California Davis conducted an analysis of the transportation impacts of telecommuting at the national level. This study defined telecommuters (teleworkers) similarly to OOE. Using numerous variables—such as vehicle miles traveled, costs of traveling, and population growth—the study found small, but positive impacts of telework on vehicle miles traveled. The study suggests implementing telework programs in combination with cost-related transportation demand management programs such as gasoline taxes, and congestion pricing.[11]

Evaluation Approach

The approach to developing this evaluation is illustrated through the logic model in Figure 2-1. A logic model is "a top-level depiction of the flow of materials and processes to produce the results desired by the organization or program."[12] This tool can be used to structure program

---

[10] Sundel Research Inc., "Oregon Telework Study," Prepared for Oregon Department of Energy, Oregon Department of Environmental Quality, and US West, July 1999.

[11] Sangho Choo, UC Davis, "Impacts of Home-Based Telecommuting on Vehicle-Miles Traveled: A Nationwide Time Series Analysis," Prepared for the California Energy Commission, October 2002. http://www.its.ucdavis.edu/publications/2002/RR-02-05.pdf 2/21/2003.

[12] Carter McNamara, Free Management Library, "Guidelines and Framework for Designing Basic Logic Model." http://www.managementhelp.org/np_progs/np_mod/org_frm.htm 12/1/2002.

evaluations. Data for each of the indicators above is presented in Chapters 3 through 5 as shown in Table 2-1 at the end of this chapter.

Figure 2-1 Logic Model of OOE's Telework Program

Inputs	OOE Activities	Outputs	Short-Term Outcomes	Intermediate Outcomes	High-Level Outcomes	Goals

Inputs:
- Metro Grant to OOE
- OOE Business Energy Tax Credit Program (35%) $1 million per year
- $20,000 match to OOE Business Energy Tax Credit (BETC)
- OOE Training and Educational Materials
- Telework Case Studies
- OOE Website with resources, materials, and information about teleworking, tax credits, & transportation options

OOE Activities:
- Presentations to Portland metro area organizations
- Training for managers, teleworkers, and coworkers
- Assistance to organizations for using tax credit system
- One-on-one assistance to employers to establish telework programs
- Development and implementation of telework marketing plan
- Partnering with other agencies, associations, etc. to promote telework
- Partnering with transportation demand management entities
- Collection and coordination of telework data
- Development of Telework program evaluation

Outputs:
- Number of businesses "touched" by Telework program
- Telework is included in transportation demand management plans and policies
- Telework Evaluation

Short-Term Outcomes:
- 100 organizations per year establish telework programs
- Number of organizations applying for and receiving tax credit
- Raised awareness of energy, transportation, and environmental issues

Intermediate Outcomes:
- Employers offer telework as a work option
- Employers provide necessary equipment for teleworking
- Employees telework 1 or more days per week

High-Level Outcomes:
- Fewer commute trips
- Fewer single occupancy vehicle trips
- Fewer vehicle miles
- Employer Benefits
  - Increased productivity
  - Increased ability to attract & retain employees
  - Improved employee morale & satisfaction
  - Increased access to new labor markets
  - Less sick leave & absenteeism
  - Reduced office & parking space needs
  - Increased ability to meet air quality &/or transportation mandates
- Employee Benefits
  - Improved work environment
  - Greater job satisfaction & sense of accomplishment
  - Improved morale
  - Greater responsibility and feeling of trust
  - More lifestyle flexibility
  - Less commuting time, stress, & cost

Goals:
- Decreased traffic congestion
- Decreased gasoline consumption
- Improved air quality

Source: Community Planning Workshop

The logic model presented on the previous page provides a framework for evaluating OOE's Telework Program. The purpose of this logic model is to provide a graphical representation of OOE's Telework Program. More specifically, the logic model illustrates relationships and linkages between program inputs, activities and outreach efforts, and the short, immediate, and long-term outcomes of those activities. This logic model was used to identify a set of indicators that CPW used to evaluate the Telework Program. The development of the logic also served to ensure that CPW's understanding of the structural linkages of the Telework Program was consistent with that of OOE and Metro prior to the evaluation process.

Following are brief explanations of each of the seven components of the Telework Program included in the logic model diagram as well as indicators that can be used to evaluate OOE's telework outreach efforts.

Program Inputs

Inputs are materials or resources that a program takes in and then processes to produce the desired results. There are no indicators specific to this level of the telework program other than the inputs shown in the logic model.

OOE Activities

The programmatic inputs make possible the next level of the logic model, OOE's activities. There are several indicators that can be used to quantify the activities conducted by OOE. Data for these indicators come primarily from data provided by OOE. These indicators include:

- The number of presentations given to organizations
- The number of organizations receiving OOE's training and educational materials
- The number of training sessions conducted at organizations
- The number of organizations assisted in using the BETC
- The number of consultations provided to organizations to establish telework programs

Some OOE activities—including the telework marketing plan, partnerships with other agencies, collection of telework data, and the telework evaluation—do not have quantitative indicators associated with them but may be qualitatively described using anecdotal data.

Program Outputs

The activities conducted by OOE are intended to produce several outputs which then lead to the program outcomes and goals. The main indicator that can be used to quantify the outputs of OOE's telework outreach is:

- The number of organizations "touched" by OOE's Telework Program

The data for this indicator are collected from OOE's database. The inclusion of telework in TDM plans and the Telework Outreach Evaluation cannot be quantitatively measured beyond stating that these policies and activities occurred.

Short-Term Outcomes

The immediate outputs lead to several levels of outcomes: short-term, intermediate, and high-level. The short-term outcomes included in the logic model can be quantified using the following indicators:

- The number of organizations that establish telework programs
- The number of organizations that OOE has worked with to provide direct telework services
- The number of "hits" on OOE's telework website
- The number of organizations who apply for and receive an Oregon Business Energy Tax Credit for telework equipment
- The number of employers and employees who indicate greater awareness of energy, transportation, and environmental issues

Data for these outcomes are collected from OOE's database and the surveys administered by CPW.

Intermediate Outcomes

The three short-term outcomes of the Telework Program make it possible for three intermediate outcomes to take place as shown in the logic model. There are several quantifiable indicators for these intermediate outcomes. Data for these indicators come primarily from the employer and employee surveys. These indicators are as follows:

- The number of employees who are offered the option of telework through an informal or formal program
- The number of employers who provide equipment to telework employees
- The number of employees who choose to telework one or more days per week
- The number of days per week that employees telework

High Level Outcomes

CPW identified several high-level outcomes of the Telework Program which can be measured by indicators. The employer and employee surveys and focus groups provide data for these indicators.

- The number of single-occupancy vehicle (SOV) trips by teleworkers
- The number of vehicle miles traveled (VMT) by teleworkers
- Employer satisfaction with telework as a work alternative for employees

- Employer needs for parking and office space
- Employee satisfaction with telework

Goals

Finally, the high-level outcomes of the Telework Program are intended to lead to the last step in the logic model—overall programmatic goals. The societal benefits of the program included at this level would require indicators that are too complex to be quantitatively measured within the scope of this evaluation.

Table 2-1 shows where data is presented for each of the indicators in the following chapters.

Table 2-1 Location of Data for Logic Model Indicators

OOE Activities	Located in:
Number of presentations	Chapter 3
Number of organizations receiving training and educational	Chapter 3
Number of training sessions	Chapter 3
Number of organizations assisted in using BETC	Chapter 3
Number of consultations	Chapter 3
Outputs	
Number of organizations touched by the telework program directly	Chapter 3
Number of organizations touched by the telework program	Chapter 3
Short-term Outcomes	
Number of organizations to apply and receive BETC	Chapter 3
Number of organizations with program	Chapter 3, 4
Number of employers and employees with increased awareness	Chapter 4, 5
Number of organizations that OOE has worked with	Chapter 3
Intermediate Outcomes	
Number of employers offered option of telework	Chapter 4, 5
Number of employers who provide equipment	Chapter 4, 5
Number of employees who telework – number of days per week	Chapter 5
Number of days per week that teleworkers telework	Chapter 5
High Level Outcomes	
Employer satisfaction with telework	Chapter 4
Employer needs for parking and office space	Chapter 4
VMT by teleworkers	Chapter 5
Number of SOV trips by teleworkers	Chapter 5
Employee satisfaction	Chapter 5

Source: Community Planning Workshop

Program Description

The program description provides a way to identify how the Telework Program has evolved over time and is currently functioning. It is a description of the structure of the telework program CPW developed by examining the activities and roles of agencies involved either directly or peripherally in the telework program. The program description provides the foundation for the evaluation: the activities and immediate outcomes that are intended to facilitate the intermediate and long-term outcomes as well as the high-level program goals.

Chapter 3 begins with the history of Oregon Office of Energy's (OOE) Telework Program and the agencies that have enabled its existence from funding to implementation. Second, the chapter addresses program activities conducted by the agencies and describes the general program approach in greater detail. Third, the chapter presents a discussion of how each agency is involved within telework outreach and assistance. Program outputs and short term outcomes are the focus of this discussion. Finally, the chapter ends with a discussion of the sustainability of the Telework Program as OOE scales back its efforts and the grant period comes to an end.

Program History

OOE's mission is to:

> "Ensure Oregon has an adequate supply of reliable and affordable energy and is safe from nuclear contamination, by helping Oregonians save energy, develop clean energy resources, promote renewable energy and clean up nuclear waste."[13]

One aspect of OOE's mission is involvement in business and economic development issues. OOE considers reduction of commuting vehicle miles as the most significant opportunity for reducing Oregon's dependence on gasoline and diesel fuel, therefore saving energy. Telework is the only commuting alternative that eliminates a commute trip altogether and therefore is an important strategy to reduce vehicle miles traveled by commuters. OOE is the lead agency involved in implementing telework.

---

[13] Oregon Office of Energy Website. www.energy.state.or.us 6/3/2003

History of OOE's Telework Activities

Since 1993, OOE has reduced auto travel by helping to establish nearly 700 telework programs in the Portland area with more than 6,000 participants. When OOE initiated its Telework Program, telework was such a new concept that every possible method was used to encourage participation. This included establishing pilot programs in the public and private sectors; producing an array of educational materials geared both to employers and employees; conducting extensive outreach to a wide range of audiences; providing technical assistance to employers, and granting just over $1 million in tax credits to employers participating in telecommuting programs. OOE also developed an electronic database library of 101 websites with telework information.[14]

OOE's information dissemination activities were complemented by extensive outreach to organizations including conducting 80 seminars in the Portland metro area to date[15] in the public and private sectors; placing notices on state employee paycheck stubs and posters on buses on heavily traveled routes; creating a website for easy downloading of sample telecommuter policies and agreements; co-founding and playing a key role in the Oregon/Washington Partners for Smart Commuting; and forming partnerships with transit districts, university extension programs, and environmental centers. OOE also organized a telework center for state employees visiting Salem during legislative sessions.

OOE, in partnership with the states of Washington, Arizona, Texas and California developed several outreach tools including: the Introduction to Telework Kit, the Step-by-Step Guidebook, the Manager's Telework Kit, and the Telework Training Kit. These written materials and videos provide guidelines that discuss key strategies to successfully address telework issues of concern to managers, teleworkers, and coworkers.

OOE's Telework Program won two national awards for excellence as a result of these extensive efforts in telework—both received in the fall of 1997. The Environmental Protection Agency's *Transportation Partners-Renew America Program* gave OOE a "Way to Go," Award for Technology for the development of innovative and comprehensive telework information, and the Association for Commuter Transportation (ACT) awarded OOE an Outstanding Service Award. OOE's Telework Program materials have also received awards from the National Telecommuting Advisory Council, the Clean Air Campaign, and the Association for Commuter Transportation.

Beginning in 1995, OOE expanded its outreach efforts in the Portland metropolitan area through grants provided by Metro.

---

[14]Oregon Office of Energy, " Way to Go! Awards Booklet," October 29, 1997, Page 15.

[15] Oregon Office of Energy Presentation Data Files through June 6, 2003.

2001 Metro Grant

Metro's involvement in the Telework Program stems from its function as the Metropolitan Planning Organization (MPO) for the Portland metropolitan area. As the MPO, Metro is responsible for developing the region's transportation plan—a process that includes implementing TDM strategies, and prioritizing and allocating designated transportation funds. Specifically, Metro allocates federal, state, regional, and local resources to other agencies for the implementation of programs that manage or reduce demand on the region's transportation system. Telework is one of these programs, funded by Metro and implemented by OOE.

Metro has funded two grants for OOE's Telework Program. The first grant came in August of 1995, when OOE established a contract with Metro, administered through the Oregon Department of Transportation for telework outreach services in the same manner as was required by the second grant, described below. This funding came from a federal Congestion Mitigation and Air Quality (CMAQ) grant that was allocated through Metro to OOE. The budget for staff and services under that grant was $268,000 for two years.

Grant Activities and Deliverables

The Oregon Transportation Commission approved the telecommuting project (telework) as part of the 2000-2003 Statewide Transportation Improvement Program in October 1999. In June 2001 Metro provided OOE with a grant in the amount of $240,000[16] to provide telework outreach and services in the Portland metropolitan area

Under the requirements of this grant, OOE was to provide a $20,000 match per year to Metro's grant from a minimum of $1,000,000 in Business Energy Tax Credits for transportation projects in the Portland area. This match provides a total of one full time equivalent employee for the Telework Program in Portland. The grant also sets forth the goal of assisting 100 Portland-area employers each year in setting up telework programs at their organizations.[17]

The grant Metro provided to OOE for the Telework Program, directed the use of funds for: outreach and promotional efforts to assist organizations in setting up telework programs; establishing partnerships for the purpose of marketing, evaluating, and collecting

---

[16] $200,000 of this grant amount came from federal funding and the remaining $40,000 came from OOE's Business Energy Tax Credit.

[17] "Exhibit "A" For Agreement No. 18, 553: Oregon Office of Energy Work Tasks," Misc. Contracts & Agreements No. 18, 553. Local Agency Agreement, Congestion Mitigation and Air Quality Project, Portland Area Telecommuting.

data on telework; and the development of an evaluation of telework outreach and assistance in the Portland metropolitan area.

Program Approach

As outlined in the grant description above, OOE's current telework activities focus, in part, on satisfying the Metro grant objectives. OOE has simultaneously used several approaches including direct and indirect outreach to employers and partnerships with other agencies that help in the marketing, evaluation, and data collection related to telework. The following section describes how these telework activities are dispersed among OOE and other agency partners.

Cooperation with Other Agencies

Implementation of telework as a TDM strategy in the Portland metropolitan area is primarily a shared effort among four agencies—OOE, Metro, TriMet, and the Oregon Department of Environmental Quality (DEQ). Each agency is involved to a different extent and plays a unique role in the implementation of the telework program. The inter-relationships among the agencies involved are shown in Figure 3-1.

In the Telework Program, OOE is the implementing agency while federal funding for the program is allocated through the Metropolitan Transportation Improvement Program (MTIP) administered by Metro. Metro has less direct contact with employers than the other agencies involved. Instead, Metro primarily works with local jurisdictions to reduce traffic congestion using a broader array of TDM strategies in compliance with Metro's regional transportation plan.

TriMet, the regional transportation agency for most of the tri-county (Multnomah, Clackamas, and Washington Counties) area, acts as part of the marketing team for telework, mainly by providing OOE's telework materials as part of a package they present to employers looking at alternate commute options. TriMet also provides information about telework and DEQ's Employee Commute Options (ECO) survey results on their website.

DEQ is responsible for implementing the Employee Commute Options Rules.[18] DEQ offers telework to organizations as one of the strategies they can utilize to comply with the requirements of the ECO Rules. In addition, DEQ provides data on telework for OOE in their annual ECO Rules survey that monitors the use of alternate commute options. DEQ also promotes telework by dispersing telework information to organizations in the Portland metropolitan area as a way to encourage

---

[18] The ECO Rules require all employers with 51 or more employees in the Portland area to reduce the number of vehicle commute trips made by employees by ten percent over three years.

alternate commute options to reduce congestion and improve air quality.

Figure 3-1. Relationships of Agencies Involved in Implementing the Telework Program

TDM

Metro

TDM Implementation

Funding

OOE
Provides Materials
Recruits Organizations
Tracks with Database
Provides Training

Feedback, Data & Marketing

Eco Survey Data & Referrals

Materials

Materials

TriMet

DEQ
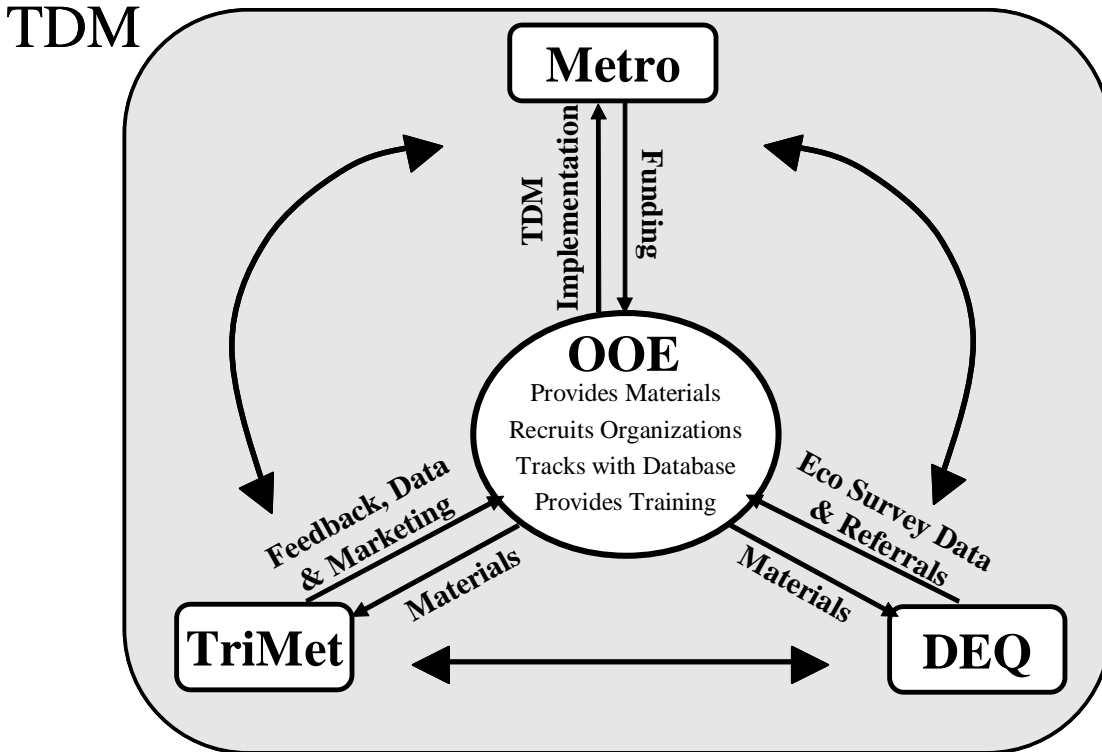
Source: Community Planning Workshop.

OOE Telework Outreach Activities

OOE's telework outreach activities range from very passive to very active as illustrated in Figure 3-2. Those activities that are more active, such as consultations and presentations, are also more labor and time intensive but appear to produce greater results.

Figure 3-2. Continuum of Telework Outreach Activities

Passive   **Active**

- Website
- Collaborative marketing
- Tracking data
- Presentations
- Staff support

- Providing kits
- Active telework marketing
- Developing new materials
- Consultations

Source: Community Planning Workshop

CPW used a number of databases that track telework activity in the Portland area to document OOE's and partner agencies' telework outreach activities. These include OOE's tracking database, OOE's records of presentations given to groups of employers, the BETC tracking database for tax credits that are granted, and DEQ's ECO survey results.

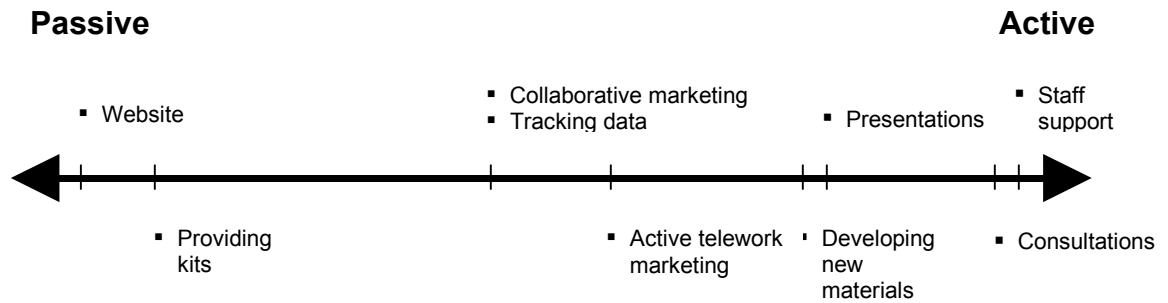Analysis of these databases provides information that shows the direct correlation between the logic model indicators presented in Chapter 2 and OOE's activities and outputs. OOE's activities can be measured by analyzing the following data: presentations to organizations and groups; organizations receiving training and educational materials, training sessions, consultations; and organizations assisted in using BETC. OOE's internal tracking database, OOE's BETC database, and DEQ's ECO annual survey report all provide information on these data sets, and they all have been examined in this analysis. Data from the Oregon Labor Market Information System also contributes to the analysis by providing comparison information.

OOE Training and Educational Materials

Since 1994, OOE has consistently distributed educational materials, which help both employers and employees establish telework in the workplace. OOE usually provides training materials for both employers and employees through employers who show interest in telework. Figure 3-3 shows that in OOE's database, the number of organizations that received these materials in the Portland metro area reached its peak in 1996, when a total of 496 organizations received training materials. It is notable that approximately 80% of OOE's 1,488 contacts in the Portland region reported in the database took place between the

fiscal years of 1996 and 1999. [19] After 1999, material distribution slowed compared to the peak period in 1996.

OOE contacted every ECO Rules organization with mailings at least once between 1996 and 1999. In addition, every organization in Portland was mailed telework materials through the DEQ Clean Air Action Days mailings. By 1999, OOE felt they had saturated the market and continuing mass mailings was unnecessary.

Figure 3-3. OOE Educational Materials Distribution by Year
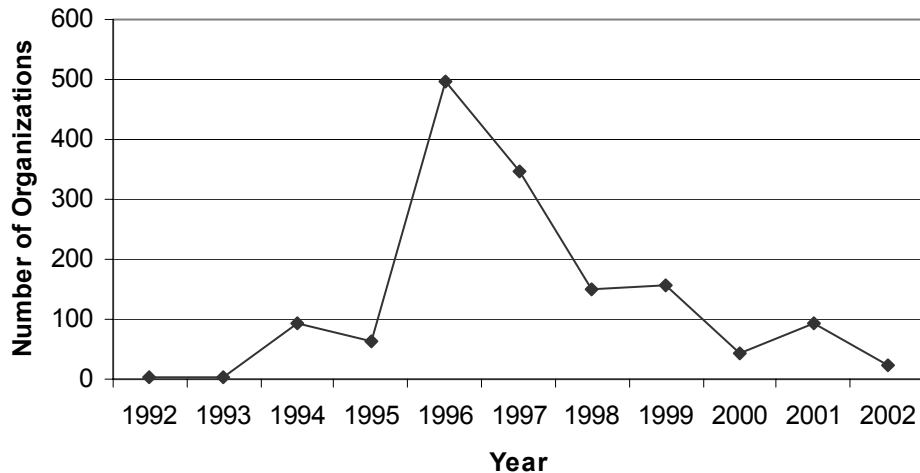
Source: Oregon Office of Energy Contact Database

OOE Presentations to Groups of Employers

In addition to working directly with employers in the Portland metro area, OOE has also given presentations to groups of employers including: city managers, human resource managers, state agencies, chambers of commerce, non-profits, transportation management associations, and groups of private businesses. These contacts are not reported in OOE's main database, but it is important to recognize that OOE has reached a large number of employers through these presentations. Figure 3-4 illustrates the number of presentation attendees by year and indicates the number of presentations in parentheses below the year. The data shows that peak attendance at these presentations occurred in 1998 and 1999—which are also the years in which the greatest number of presentations were given.

---

[19] This figure includes both "prime" and "non-prime" contacts in the database—meaning that it may include more than one person per organization as well as those contacts that are "colleagues" of OOE staff.

Figure 3-4. Number of Attendees at Presentations Given to Groups of Employers in the Portland Metro Area
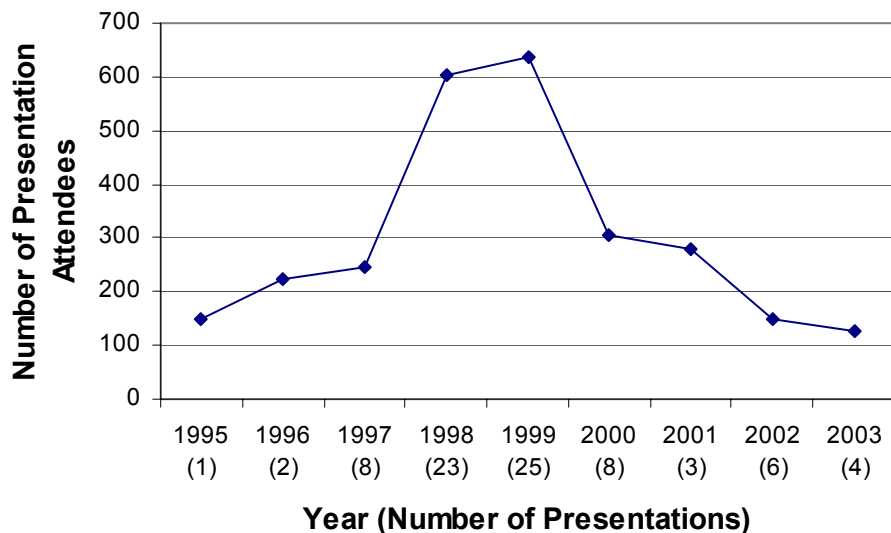
Source: Oregon Office of Energy Presentation Data Files.

Note: Data for 2003 is through June 6, 2003.

Business Energy Tax Credit

Oregon's Business Energy Tax Credit (BETC) is made available to any organization in Oregon with a project that encourages investments in energy conservation, recycling, renewable energy resources and less-polluting transportation fuels. For the Telework Program, organizations that work to reduce employee commuting are eligible for the tax credit of 35% of the project cost. The credit must be taken over five years: 10% for the first and second years, and 5% each year thereafter. If the project total is less than $20,000 the tax credit can be taken in one year.

Organizations apply to receive the tax credit before they begin their project. In the application, an estimated cost is determined by the organization. The tax credit can cover equipment, software, phone lines, printers, copiers, installation costs and more. After the tax credit is approved for each project, the organizations can begin work. After completion of the project the organization has to then apply for a certificate. Upon approval, the organization is issued a final certificate to file with their state income tax.[20]

---

[20] Oregon Office of Energy, "Oregon Business Energy Tax Credit" Brochure, November 2000. www.energy.state.or.us/bus/tax/betcbro.pdf 3/1/2003.

Oregon Office of Energy's Telework Program Evaluation

Since OOE began its work on telework, OOE's BETC database shows there have been twenty-one approved tax credit projects in the Portland metropolitan area, but only nine, roughly 16 % of those projects, actually received tax credits. Figure 3-5 shows that while over a million dollars ($1,035,628) in project expenses were approved by OOE, only $165,223 were finalized and given tax credits. Statewide, only 14 % of approved project dollars were finalized.[21]

Figure 3-5. BETC Telework Projects 1992-2003
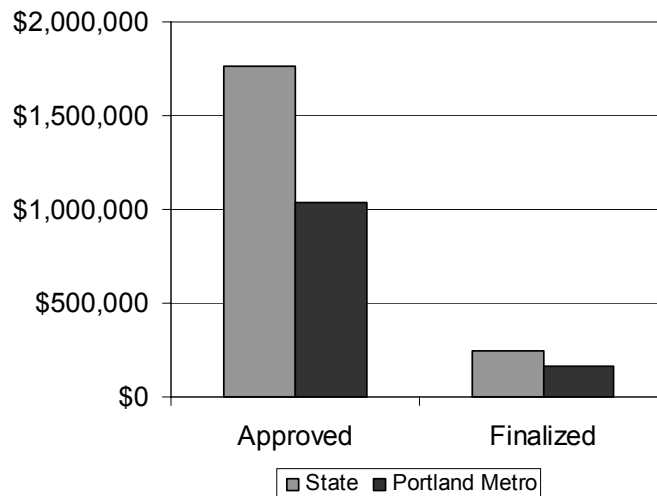
Source: Oregon Office of Energy BETC Database. February 10, 2003.

Because telework is not necessarily the right option for many organizations, OOE program staff does not promote BETC as an incentive for starting telework until after they have interviewed the employer to see if telework is a viable option. OOE then offers the tax credit if they believe telework is appropriate for that organization—the goal being to prevent negative telework experiences.

OOE program staff believes that organizations are aware of the credit for telework equipment, but that most employers do not need to purchase this equipment because many employees have the necessary home office setup. Oregon rates in the top five states of computer ownership in the nation with 61.2% of households owning a computer.[22]

---

[21] Projects have five years to file, and many organizations wait until they have tax liability to finalize their credit.

[22] Employment Policy Foundation, "Computer Ownership and Internet Access: Opportunities for Workforce Development and Job Flexibility," *Technology Forecast*, January 11, 2001. www.epf.org/forecasts/2001/tf20010111.pdf 5/3/2003.

Types of Organizations Receiving Telework Assistance from OOE

To determine if certain types of organizations have requested and/or received more assistance from OOE than other types of organizations, CPW compared the distribution of standard industrial classifications of organizations in OOE's contact database with the distribution of classifications of organizations in the Portland metropolitan area. This comparison was made using averaged data from 1996 to 2000 from Oregon Labor Market and Information System (OLMIS)'s Summary of Covered Employment and Payroll Report for Washington, Multnomah, and Clackamas Counties.

Figure 3-6 shows that there are certain industries—manufacturing; services; transportation, communications, and utilities; and finance, insurance and real estate—where OOE has worked with a higher proportion of organizations than would be expected given the distribution of industry classifications in the Portland metropolitan area. This is despite the fact that all organizations in the Portland area have received contact from OOE through ECO Rules mailings, DEQ's Clean Air Action Day mailings, and presentations to the Portland Human Resource Management Association. Other sectors of employment have received less direct assistance than would be expected given the distribution of industries in the Portland area. These sectors include: construction, agriculture, retail trade, and wholesale trade.

Figure 3-6. Types of Organizations Requesting and Receiving OOE's Assistance as compared with the Distribution of Types of Organizations in the Portland Metropolitan Area between 1996 and 2000
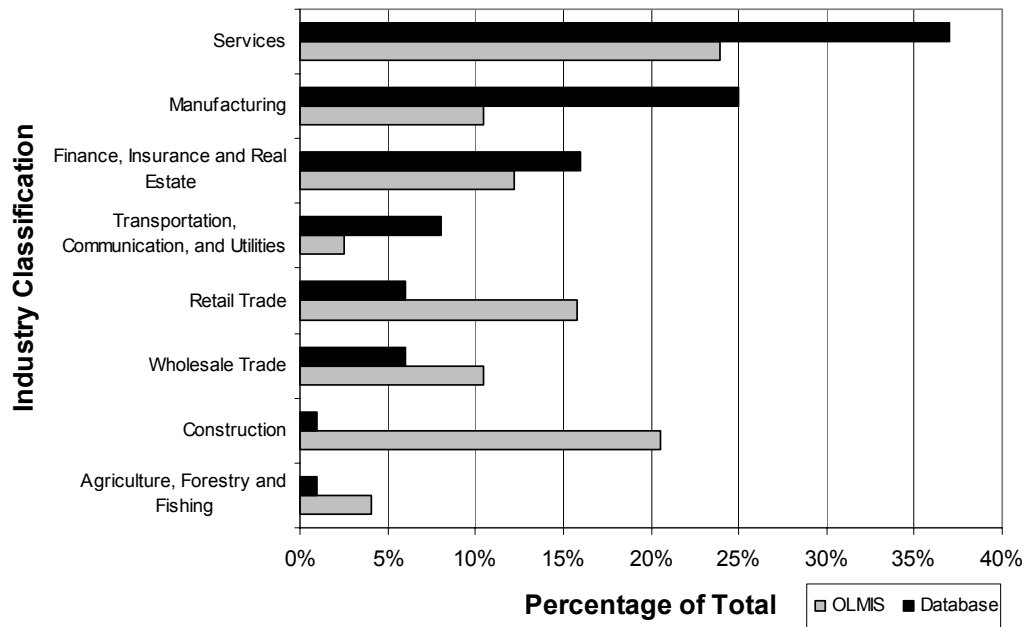
Sources: Oregon Office of Energy Contact Database and Oregon Labor Market and Information System (http://www.qualityinfo.org/olmisj/CEP)

Job Components and Work Habits

Job components are a key factor in whether or not telework is appropriate for certain organizations. As shown earlier in Figure 3-4, organizations in the manufacturing sector have received quite a bit of assistance on telework. This is a sector that would not appear to lend itself to telework at first glance, but people in the higher management levels and professional categories within the organization can potentially telework because job components may involve tasks which do not require as much time on-site.

OOE has found that there are three key elements to having a successful teleworker: the right job, the right work habits and the right home environment.

Telework Programs in the Portland Area

OOE's database shows that the number of telework programs, both formal and informal, in the Portland area has grown steadily since OOE began tracking this data in 1997. Figure 3-7 below is based upon direct contacts that OOE has had with organizations and data from the ECO surveys which is added to OOE's database annually. For the period of

the most recent grant from Metro, 2001-2003, this data shows that approximately 340 new telework programs have been initiated in the Portland area. As of June 2003, OOE estimates there are approximately 6000 teleworkers in the Portland region.[23]

Figure 3-7. Cumulative Number of Telework Programs in the Portland Metropolitan Area.
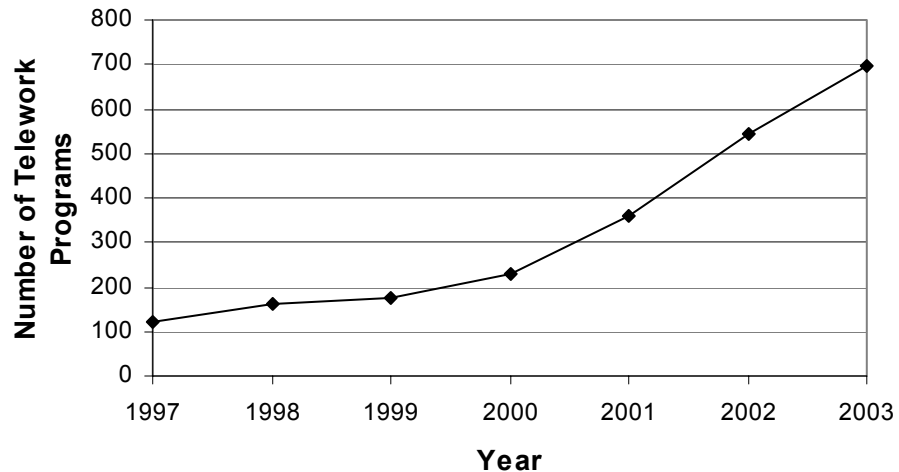
Source: OOE Contact Database and OOE Staff.

ECO Rules Summary

In 1996 DEQ initiated the ECO Rules program requiring all employers with 51 or more employees in the Portland area to reduce the number of vehicle commute trips made by employees. To monitor progress and compliance with the ECO Rules, DEQ has surveyed employees of these organizations on an annual or biannual basis since 1996. Employees are asked to report how they commuted to work each day of the previous week. This includes telecommuting as a "commute" mode even though teleworkers often do not do any work-related traveling on telework days.

The survey tracks the responses to alternate methods of commuting from an organization's initial baseline survey to the most recent survey by percent change for each mode of commuting. Table 3-1 represents data from 894 employment locations for 195,000 employees that have completed both a baseline survey and a more recent survey. This table shows that telework is the smallest of the alternate commuting category at 0.6%. Survey results from previous years show that

---

[23] This figure is based upon data from the ECO Rules survey and likely does not reflect the number of teleworkers in small organizations which are not subject to the ECO Rules.

telecommuting has shown consistently high gains in the number of commute trips, with increases that frequently exceeded 100%. In the baseline surveys, there were only 4,565 average commute trips made by teleworkers, but in the most recent survey, that number had risen to 10,222—a gain of 5,657 commute trips avoided by telework, and more than double the baseline survey number of trips avoided.

Table 3-1. Employee Commute Modes from ECO Survey

Commute Mode	Baseline Survey	Most Recent Survey
Drive Alone	75.6%	70.1%
Bus/MAX	9.5%	13.5%
Carpool/Vanpool	10.0%	10.0%
Bicycle/Walk	3.4%	3.5%
Compressed Work Week	1.3%	2.3%
Telecommute	0.3%	0.6%

Source: Metro, "2002 Regional Transportation Demand Management Program Evaluation Report," Volume 1, April 10, 2003. http://www.metro-region.org/library_docs/trans/volume1_report.pdf 5/13/2003.

Sustainability of the Telework Program

The success of OOE's Telework Program depends, in large part, on the inter-agency relationships that have formed through mutual association in TDM related programs. OOE is currently the primary implementing agency and provides the most direct connection with employers for telework outreach, but that position will probably change in the near future. All of Metro's grant funding has been allocated and no other grants are on the horizon, so in the future OOE plans to scale back their involvement in the Telework Program in fall of 2003 to 25% of their current level.

There was general agreement among all the agencies, especially OOE and DEQ, that the most effective method of outreach is one-on-one contact with employers. OOE stressed the importance of securing the support of an organization's upper management for telework. Without this it is unlikely that a telework program can be successfully implemented even if the employees are willing. While informational materials and Clean Air Action Day educational information definitely help create awareness of telework as an option, one-on-one interaction is best at convincing employers of the merits of telework.

To maintain the service level of the Telework Program, Metro and OOE are developing ways to increase the roles of other agencies in conducting telework outreach, training, and assistance. This will be a significant change for the Telework Program since OOE has provided almost all the face-to-face outreach to organizations in the past. As OOE scales back its involvement, continuing one-on-one assistance may require more active involvement from one of the other agencies. OOE plans to continue to maintain their telework website and to provide

telework training materials. OOE will also continue to assist large employers in developing their telework programs.

Through this program evaluation CPW has developed a series of recommendations, presented in Chapter 6, that Metro and OOE can implement to continue effective telework outreach in the future.

Chapter 4
Employers' Perspective on Telework and OOE Outreach

This chapter presents employers' perspectives on telework and the technical assistance and outreach services provided by the Oregon Office of Energy (OOE). It draws upon data collected from the survey administered to employers in the Portland metropolitan area and the focus groups conducted with employers. A more detailed discussion of survey results is presented in Appendix B and transcripts from the focus groups are presented in Appendix C.

CPW presents data that address six indicators from the logic model described in Chapter 2. Short-term outcome indicators include: the number of organizations with a telework program, the number of employers with increased awareness, employer satisfaction with telework, and employer needs for parking and office space. Intermediate outcomes include: the number of employees offered the option of telework and the number of employers providing equipment for teleworkers.

The chapter begins with a brief discussion of the methods of data collection used and then addresses the findings regarding the employers' evaluation of telework by the logic model indicators. The chapter ends with other important issues related to employers' perspectives.

Data Collection

CPW conducted a mailed survey of employers to gather information from the employer perspective on telework. CPW administered surveys to approximately 1,100 employers in the Portland metropolitan region. In total, CPW received 192 surveys for a 17.5% response rate.

Portland area employers share their thoughts on telework with the CPW team. Photo by CPW.

The survey had four main components: (1) general telework issues; (2) utilization of outreach assistance; (3) non-teleworker issues; and (4) demographics. The questions addressed what aspects of telework do and do not work well for employers, barriers to telework, benefits of telework, and sources of information on telework.

CPW invited survey recipients to participate in a focus group to discuss telework issues with other employers. The issues addressed in the focus group meetings included: how telework operates within participants' organizations, assistance participants received related to telework, impacts of telework on management, and the strengths and weaknesses of telework. CPW conducted two focus groups in April 2003, with eight participants.

Findings

Number of Organizations with a Telework Program

The survey results show that 37% of the respondents' organizations have a telework policy, while 63% do not. Of those organizations with a telework policy, 40% have a formal telework policy, and the remaining 60% have an informal policy.

Of the eight participants in the focus group, seven stated their organization has a telework policy; four of which are formal telework policies.

Reasons for Starting a Program

According to the survey, only 23% of respondents' organizations use telework as a way to satisfy the ECO Rules requirements. This finding suggests that for many organizations, satisfying the ECO Rules requirements is not a major consideration for establishing a telework program.

When discussing reasons why organizations started a telework program, focus group participants stated that their programs started mostly from employee requests based on lifestyle and flexibility needs. One participant stated an employee recently had a baby and asked to telework to provide more flexibility and freedom with a child at home.

Another reason cited for starting telework programs is the lack of office and/or parking space. One focus group participant stated that the need for more office space along with an employee request started his organization's telework program.

Number of Employees Offered the Option of Telework

Many of the focus group participants noted that telework is not widely used in their organizations. Small organizations (less than 50 employees) had 1-3 teleworkers, and large organizations (50 or more employees) had 1-30 teleworkers.

Survey respondents' organizations varied greatly in size. The mean response to the total number of full time equivalent employees was 223.3, and the median response was 70.0. When asked how many of their organization's employees telework one or more days per week respondents' answered in the range of 0 to 300. The mean response was

16.8, and the median was 4.0. Organizations with telework programs indicated that at least 65% of their employees will never be offered the option of telework. Table 4-1 shows a cross tabulation of number of full time equivalent (FTE) employees and the number of teleworkers.

Table 4-1. Cross tabulation between Total Full Time Equivalent (FTE) Employees and the Number of Teleworkers at Respondents' Organizations

Number of FTE	Number of Teleworkers				Total
	1-3	4-9	10-19	20 +	
1-14	81.3%	6.3%	6.3%	6.3%	100.0%
15-49	57.1%	28.6%	14.3%	0.0%	100.0%
50-124	57.1%	28.6%	14.3%	0.0%	100.0%
125-299	62.5%	37.5%	0.0%	0.0%	100.0%
300-699	0.0%	80.0%	0.0%	20.0%	100.0%
700 +	0.0%	40.0%	20.0%	40.0%	100.0%

n = 48

Source: Employer Telework Program Evaluation Survey

Note: Because this chart compares the number of full time equivalent (FTE) employees, not the total number of employees, some organizations may have more teleworkers than FTE employees.

According to Table 4-1 the general relationship is that larger organizations have more teleworkers. Organizations with less than 300 FTE employees are more likely to have 1 to 3 teleworkers. Larger organizations (300 or more FTE employees) are more likely to have 4 or more teleworkers.

In the focus group, most organizations stated that management and professional level positions are generally the ones offered the option of telework. Similarly, the survey showed that the most common types of positions that respondents perceive as the most suitable for telework in their organization are professional (35%), sales (27%), and project management positions (17%) as shown in Figure 4-1. It should be noted that 22% of respondents feel there are no suitable positions for telework in their organization.

Figure 4-1. Positions Most Suitable for Telework
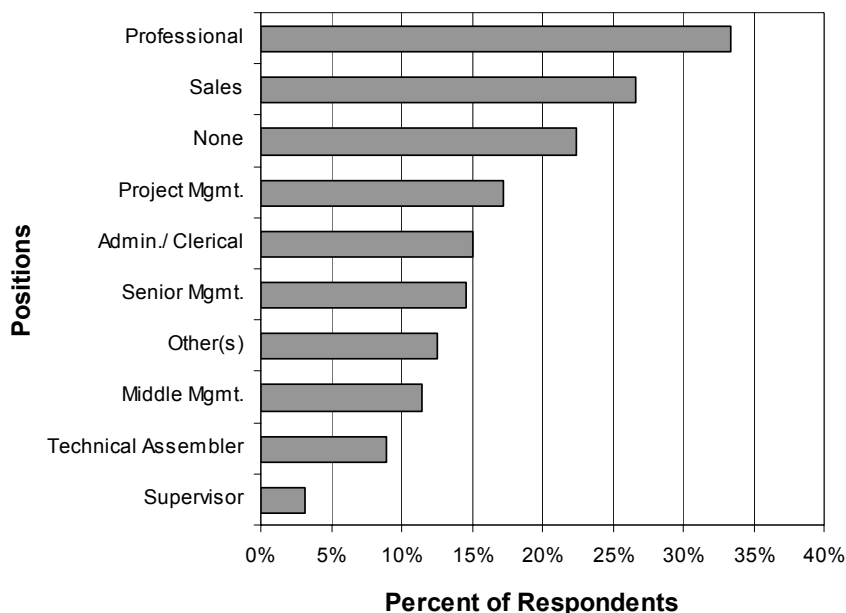
Source: Employer Telework Program Evaluation Survey

Number of Employers Providing Equipment

Many organizations that permit telework provide equipment for their employees. If organizations have teleworkers and want to get a tax credit for the provided equipment they can use the Oregon Business Energy Tax Credit (BETC) program.

As part of OOE's outreach program, organizations that work to reduce employee commute trips through telework are eligible for a tax credit of 35% of the project cost. The tax credit can cover equipment, software, phone lines, printers, copiers, installation costs and more. The survey and focus groups included a series of questions addressing equipment and the BETC program.

Almost 60% of the survey respondents that had telework programs indicated that they had provided equipment for teleworkers, but none of the organizations responding to the survey had applied for or received a BETC credit. Reasons identified for not taking advantage of the tax credit were that paperwork was too complicated (1%), incentive is not great enough (10%), and the biggest reason identified was a lack of knowledge about BETC (39%). Not surprisingly, only 2% of respondents listed BETC as a consideration when they established their telework program.

When asked about the usefulness of the BETC for equipment purposes no survey respondents completed this section. There was no input into the effectiveness of the BETC program from the survey.

The focus groups provided similar reactions towards the usefulness of the tax credit program. Of the seven participants with a telework program, one had participated in the BETC program, three stated they have not used the tax credit program, and three represent public agencies that cannot participate in the program. Of the three participants that have not used the tax credit program, one was not aware of the program and the other two were aware of it but chose not to use it.

Those who chose not to use BETC had some insightful reasoning for this decision. One reason that came up from a few participants was that it requires too much tracking for the organization. They also do not have the time or personnel to comply with the BETC administrative requirements for the relatively small credit amount. One participant indicated that they are a Fortune 500 company, and the benefit of the tax credit program is simply not much of an incentive for them. Another participant explained that he wasn't sure why their organization didn't use the tax credit program; he suggested more information about BETC should be in the information packets for organizations.

Source: Community Planning Workshop.

The three public agency participants that mentioned they were unable to receive a tax credit discussed an alternative, a Pass-through Partner program, but none of them had yet taken advantage of this opportunity.

Number of Employers with Increased Awareness

In the focus group discussions, several participants felt that offering telework along with other alternative commute options raises environmental awareness in their organizations. One participant mentioned that in her organization, employees and their organization's green team, which assists the organization in functioning in a more environmentally friendly manner, were looking for ways to be more environmentally conscious, and in this pursuit, they started to permit telework as a commute alternative. Finally, another participant felt that employers' decision to offer telework is driven more by economic factors than by environmental consciousness.

Employer Satisfaction with Telework
Benefits and Costs

Survey respondents were asked to give a rated response to statements regarding the benefits and costs of telework on a scale from "strongly agree" to "strongly disagree." Table 4-2 shows respondents' perceptions

of the benefits of telework. Survey respondents perceive the biggest benefits of telework to be improved work flexibility, increased employee morale, assistance in employee retention, and greater job satisfaction for employees. These survey results correspond with the benefits outlined in the literature review presented in Chapter 2. Many respondents had neutral feelings about most statements in the range of 13% to 55%.

While most employers feel telework improves employee morale, that teleworkers exhibit greater job satisfaction, that telework helps recruit and maintain high quality employees, and that telework improves workplace flexibility, opinions were more mixed on other statements. In particular, 37% do not believe telework reduces overhead expenses while 19% do believe this, and 31% are neutral. Also of note, almost 55% of respondents hold neutral opinions as to whether or not telework improves work quality.

Table 4-2. Respondent Perceptions of the Benefits of Telework

Benefit Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Sure
Telework improves employee morale.	25.5%	44.7%	17.0%	5.3%	0.0%	7.4%
Telework increases employees' productivity.	7.5%	34.4%	34.4%	9.7%	1.1%	12.9%
Teleworkers exhibit greater job satisfaction.	17.2%	41.9%	28.0%	3.2%	0.0%	9.7%
Telework reduces overhead expenses.	1.1%	19.4%	31.2%	36.6%	6.5%	5.4%
Offering telework helps attract high quality employees.	11.8%	31.2%	37.6%	5.4%	1.1%	12.9%
Offering telework assists in employee retention.	12.9%	48.4%	24.7%	4.3%	0.0%	9.7%
Telework helps meet the ECO Rules requirements.	8.6%	29.0%	22.6%	4.3%	1.1%	34.4%
Telework improves work quality.	6.5%	20.4%	54.8%	7.5%	0.0%	10.8%
Telework improves flexibility in the workplace.	24.7%	58.1%	12.9%	2.2%	0.0%	2.2%

Source: Employer Telework Program Evaluation Survey

Table 4-3 shows the perceived costs of telework as reported by survey respondents. The most frequently cited costs of telework include: communication difficulties with managers of teleworkers, problems in communication with co-workers, and increases in equipment costs. Again, these results correspond with the costs outlined in the literature presented in Chapter 2. Many employers (13% to 34%) felt neutral about the cost statements, but these statements point out several areas of disagreement among managers. While some (20%) agreed that telework increases equipment/service costs, more (30%) disagreed.

Many (34%) respondents agreed that decreased face-to-face contact with teleworkers makes management more difficult, while 28% disagreed. Most employers disagreed (38%) that communication between teleworkers and co-workers is difficult, 34% were neutral, and some (16%) agreed. More (46%) participants disagreed about communication between managers and teleworkers being difficult than those that agreed (13%).

Opinions were also quite mixed about the difficulties of scheduling meetings due to telework, about technical difficulties disrupting telework, and about telework providing less direct control over teleworkers.

Table 4-3. Respondent Perceptions of the Costs of Telework

Cost Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Sure
Telework increases equipment and/or service costs.	12.0%	19.6%	25.0%	30.4%	4.3%	8.7%
Decreased face-to-face contact with teleworkers makes management more difficult.	14.0%	34.4%	18.3%	28.0%	3.2%	2.2%
Technical difficulties or disruptions make telework difficult.	2.2%	29.3%	33.7%	22.8%	2.2%	9.8%
Telework provides less direct control over employees.	5.4%	44.6%	27.2%	18.5%	2.2%	2.2%
Scheduling meetings with teleworkers is more difficult than with non-teleworkers.	8.6%	39.8%	18.3%	28.0%	1.1%	4.3%
Communication between teleworkers and co-workers is difficult.	1.1%	16.1%	34.4%	38.7%	4.3%	5.4%
Communication between managers and teleworkers is difficult.	2.2%	12.9%	24.7%	46.2%	6.5%	7.5%

Source: Employer Telework Program Evaluation Survey

When asked about the costs and benefits of telework, many focus group participants stated that equipment costs increase a result of offering telework. One participant shared that his organization provides the proper furniture and necessary network connections, and an ergonomic specialist visits the homes of teleworkers. He also stated that in a competitive job market the ability to give workers an alternative such as telework is beneficial in recruiting high quality employees. Another participant indicated that benefits such as work/life balance, employee accountability, and reduced overhead costs outweighed the initial start-up costs.

Employer Needs for Parking and Office Space

Parking and office space are large expenses for most organizations. This section examines the effectiveness of telework as a way to reduce costs for parking and office space.

Four of the focus group participants indicated that parking is a challenge for their organization—especially for the downtown area of Portland. Those who didn't see parking as a challenge are located in more suburban areas with more available parking space or already have many commute alternatives in place for their employees to use. The other alternatives these employers offer include: discounted bus passes, bike corrals and showers, and carpooling incentives. One participant stated that telework does not address their parking needs because his organization purchases parking spaces from a parking company and pays a monthly fee whether the spaces are used each day or not. He also suggested the idea of parking credits for days when spaces are not used as an incentive for telework.

One participant's organization has a substantive plan in place to address their parking constraints. Her organization allocates each employee a parking space for only four days a week. Employees can walk, ride the bus or light rail, carpool, or telework on the fifth day, and each employee can select their "non-parking day" of the week.

A different focus group participant indicated that his organization's prime reason for starting telework was that their facilities were at full capacity, and they needed additional office space. This necessity combined with the request from an employee to work from home caused his organization to start a telework program.

When asked to indicate their level of agreement with the following statement of "Telework reduces overhead costs," some survey respondents agreed (21%), but more disagreed (43%) with this statement. Parking and office space is a big factor to many organizations, yet these employers perceive that telework for the most part does not contribute to a cost savings. This is in part due to those reasons indicated by the focus group participants: the way parking lot spaces are paid for and the way office space is arranged by most organizations.

Assistance from OOE

About 64% of respondents stated that they know where to find information on telework programs. Figure 4-2 illustrates where employers have found telework information. The Internet, human resource or managerial organizations, and the Oregon Department of Environmental Quality were the three most commonly cited sources.

Figure 4-2 Where Employers Found Information on Telework
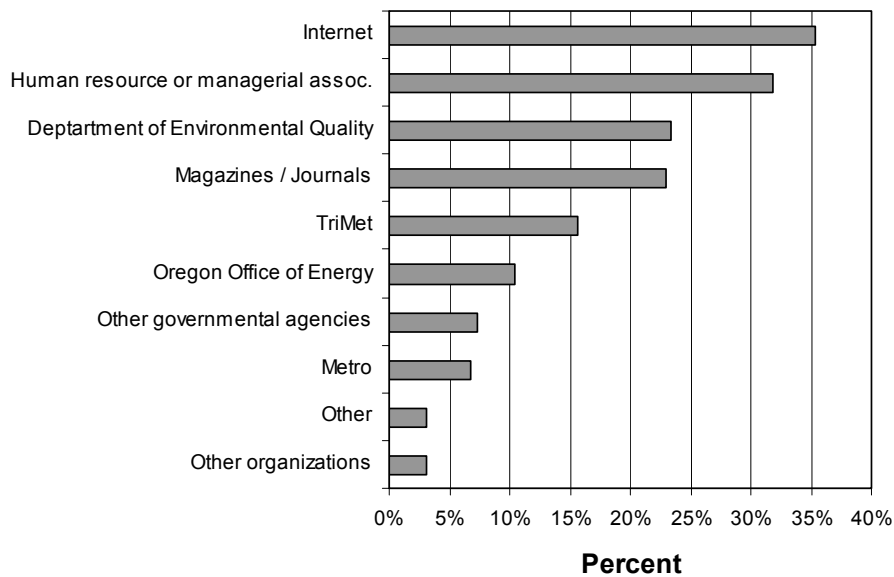
Source: Employer Telework Program Evaluation Survey

The survey results show that 12% of the respondents had direct contact—such as consultations, presentations, or training sessions—with OOE and their Telework Program. Twelve percent of respondents indicated they received indirect assistance—such as use of the website, receiving OOE materials from another source, etc—while the majority (63%) of respondents stated that they'd had no form of contact with OOE's Telework Program.

Of those receiving assistance from OOE staff, 44% of respondents most recently had contact with OOE in 2002; 16% of respondents stated that 1999 was the last date of contact; 12% of respondents have had contact in 2003; and another 12% listed 1998 as their last date of contact.

"Oregon is doing so much to promote 'telework' and bringing telecommuting to the attention of businesses and community organizations. Certainly implementing these programs in more businesses will cut down on traffic, pollution, and save energy."

Employer Survey Respondent

Table 4-4 displays the types of telework assistance (direct or indirect) that those organizations who have had contact with OOE received.

Table 4-4. Types of Assistance from OOE

Type of Assistance	Percent
Educational and training materials	33.8%
Presentations about telework	25.3%
Information from OOE's telework web site	22.5%
Not sure	19.7%
Training for managers	14.1%
Training for teleworkers	7.0%
None	7.0%
One-on-one assistance	6.0%
Assistance using the BETC credit	4.2%
Training for coworkers	1.4%

Source: Employer Telework Program Evaluation Survey

About one-third (34%) of respondents who received assistance from OOE stated that their organizations started a telework program as a result of OOE's assistance. These respondents indicated that the most helpful types of assistance they received were educational and training materials about telework and presentations about telework. Of the respondents that did not start a program as a result of OOE's assistance, 44% stated that a program was already in place, and 11% stated that telework is too difficult for their type of organization. In addition, approximately one-third of the respondents who had contact with OOE also used OOE's telework materials to educate employees about telework.

Three focus group participants did not know about OOE's services at the time their organizations were establishing a telework program, and so their organizations developed their own policies. The rest of the focus group participants stated that they needed direct assistance in starting telework and that OOE provided this. One participant stated, "Without OOE telework program staff, there wouldn't be telework in Oregon." Other participants stated that they received kits, presentations, and packets.

One participant remarked that OOE's management training kit and video were the most important education pieces her organization received so that they could convince managers of the merits of telework. Another participant stated it would be really helpful if organizations could get assistance packets addressing the specific concerns of their industries.

The Teleworker Profile

Employers responding to the survey were asked to identify characteristics they look for in potential teleworkers. The characteristics they identified that make employees better suited for telework are displayed in Table 4-5. A few of the characteristics had a very high response, such as

"The key to telecommuting is the employee's drive and willingness to make it work. If they slack at work, telecommuting will not work for them."

Employer Survey Respondent

the ability to work independently, self motivation, and the type of position.

Table 4-5. Employee Characteristics Best Suited for Telework

Employee Characteristics	Percent
Ability to work independently	70.3%
Self motivation	69.3%
Position	56.3%
Communication skills	32.3%
Length of time in position	25.5%
None	11.5%
Educational level	8.9%
Other	7.3%

Source: Employer Telework Program Evaluation Survey

Communication with Teleworkers

When survey respondents were asked about the level of agreement with the following statement of "Communication between teleworkers and co-workers is difficult," 43% disagreed, 17% agreed, and 34% were neutral. According to another statement of "Communication between managers and teleworkers is difficult," 53% disagreed, 15% agreed, and 25% were neutral. The ability of teleworkers to successfully communicate with their managers and co-workers is most likely due to the increased use of technology in day-to-day operations. Figure 4-3 shows how teleworkers communicate with their organizations on a day-to-day basis. This figure illustrates that email and telephone between the teleworkers and the office are the top methods of communication.

Figure 4-3. Methods of Communication
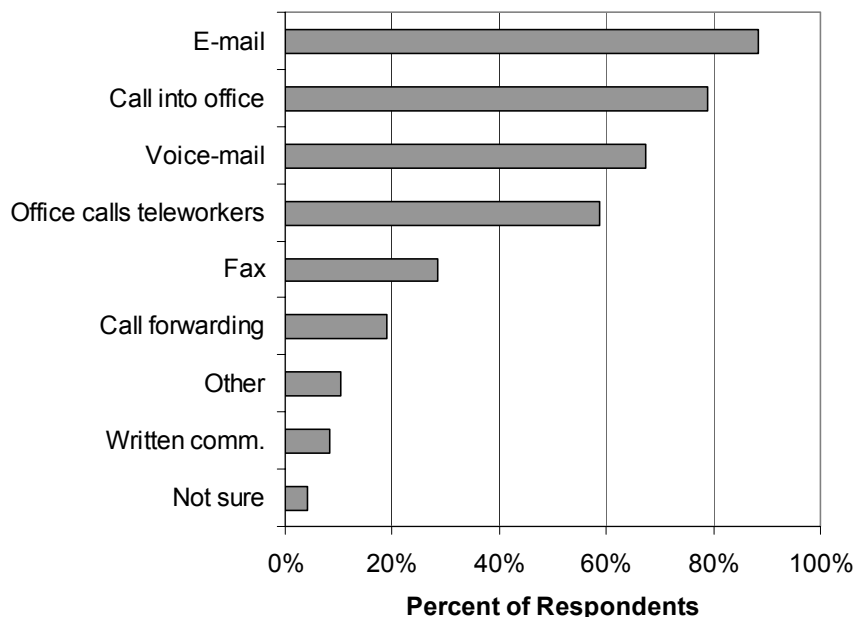
Source: Employer Telework Program Evaluation Survey

In the focus groups, one participant felt that communication was the number one determinant of whether or not telework succeeds in the organization. One participant noted that you need to be able to get a hold of someone, especially if they are involved in team work. If you cannot rely on good communication skills the team may fail. Two participants voiced the opinion that telework has actually improved overall communication in their organizations—even among non-telework employees. Another participant indicated that her telework day is the one day she is always available to her employees. One participant indicated that telework forces his organization to be better organized overall.

Barriers to Telework

Ninety percent of survey respondents indicated that there were barriers that make telework difficult. Employers identified 31 different barriers to telework. Many of these barriers are related, and a few stood out as being some of the major barriers to telework. The top five are as follows: employees need to be on site (19%), security and restricted data access (9%), communication skills (9%), manufacturing facility (8%), and customer service issues (7%).

> **"We are an airline. We cannot load baggage or check passengers in from our homes."**
>
> *Employer Survey Respondent*

Management Issues

When asked about the attitude of management towards permitting telework, 32% of survey respondents said that managers in their organizations are neutral, 34% of respondents feel management display a positive attitude toward telework, and 34% of respondents feel management attitudes are somewhat or very negative.

Nearly all respondents (96%) indicated that telework has not caused a change in management style in their organization.

Several focus group participants stated that the best way to manage teleworkers is to manage by results. They also stated that the feasibility of telework in an organization is largely determined by the management styles of individual managers. Those managers who exhibit trust in their employees and who manage by results are most likely to support telework. On the other hand, there are still many managers that feel the need to see their employees in the office at all times, and these managers are the ones that are the least likely to permit telework.

"Work culture in some professions is so ingrained that it will take a generational change in the workplace to see telework flourish in certain industries and professions."

Employer Survey Respondent

One focus group participant mentioned that managerial styles may reflect generational issues associated with technology. He believes that the younger managers, with more technological knowledge and exposure are more willing to be adaptable to ideas like telework. These issues were among the same findings from the interagency interviews held in February, found in Appendix A.

Oregon Office of Energy's Telework Program Evaluation

Chapter 5
Employees' Perspective on Telework and OOE Outreach

This chapter addresses the perspectives and concerns of employees in the Portland metropolitan area regarding telework and the outreach efforts of the Oregon Office of Energy (OOE). This chapter looks at information gathered in the survey administered to employees and a set of email questions that expanded on information from the survey.

The data that CPW collected from the survey and the email questionnaire address eight indicators from the logic model presented in Chapter 2. The short term indicator addressed by the employees' perspective is whether employees' awareness of environmental issues increased as a result of information about telework. Intermediate indicators include the number of employees offered the option of telework, the number of employees who telework regularly, the number of days per week that teleworkers telework, and the number of employers who provide equipment. High level indicators include, the number of single occupancy vehicle trips saved by teleworkers, vehicle miles saved by teleworkers, and employee satisfaction with telework.

Data Collection

CPW surveyed employees in the Portland metropolitan area to gather quantitative and qualitative data on the employees' perspectives of telework. This online survey was distributed by employers who volunteered to send the html link for the survey to employees in their organizations. Approximately 20 organizations distributed the survey to their employees. CPW received a total of 376 responses to the employee survey.

The employee survey consisted of five components: (1) how employees commute to work; (2) general telework issues; (3) experiences of teleworkers; (4) exposure to telework outreach assistance; and (5) demographic information about the respondents. The questions addressed what aspects of telework do and do not work well for employees, barriers to telework, the benefits of telework, and sources of information regarding telework. Additional information about the survey results can be found in Appendix D.

Initially, CPW invited survey respondents to participate in two focus group meetings. Due to scheduling difficulties, CPW substituted an additional questionnaire sent by email to focus group volunteers in place of the focus group meetings. These six additional questions were

designed to probe into issues not fully addressed in the survey. The questionnaire was sent to 21 people, and CPW received a total of 17 responses. Participants' responses are included in Appendix E.

There are certain limitations for using an on-line survey instead of a mailed survey and an email questionnaire in place of focus groups. The online survey does not allow us to determine a response rate because there is no way to determine the total number of employees who received the message about the survey. Posting the survey on the internet also poses the potential for anyone to complete it, and there is no way to ensure that each participant only completed the survey once.

Substituting the email questionnaire for focus group meetings loses the elements of dialog and interaction that come from having a group of people sit down together. The benefits are that we received 17 responses to the email questionnaire which represent the opinions of more people than probably would have been able to attend a focus group. The main drawback of this method is that people tended to be brief in their responses to the email questions, and we were unable to ask probing questions to explore their responses more in-depth.

Findings

Demographics of Survey Respondents

Respondents to the employee survey were asked a series of demographic questions so that a general picture of who responded to the survey could be determined. A summary of their characteristics is provided in the following bullet points.

- The average age of survey respondents is 41 (median 41.0), and two-thirds (63%) of survey respondents are female.

- Respondents have an average of two (median 2.0) family members in their households who are over the age of 18 years old, and only 0.57 household members on average (median 0.0) under the age of 18, suggesting that very few respondents to the survey have children in their households.

- Respondents' personal incomes are fairly evenly distributed between $20,000 and $69,999 with only 3% of respondents making less than $20,000, and only 10% earning more than $80,000. The average of respondents' incomes is around $50,000 which is significantly higher than the average pay of $37,700 per worker in the Portland area.[24] Teleworkers tend to have a higher income than non-teleworkers. Although only 14% of respondents telework, these respondents account for 42% of

---

[24] Oregon Labor Market Information System (OLMIS) Covered Employment and Payroll: Portland PMSA 2000. http://www.qualityinfo.org/olmisj/CEP 5/15/2003.

participants earning $70,000 to $79,000 annually and 36% of participants earning $80,000 or more, while only 2% of the $20,000to $29,000 income respondents telework, and 7% of the $30,000 to $39,000 income respondents telework.

· Survey respondents have fairly high education levels with more than 60% having a Bachelor's or advanced college degree, and an additional 24% having some college experience as compared with the general population of the Portland area for which only 29% have a bachelor's degree or higher.[25] Levels of education tend to be higher among teleworkers than non-teleworkers. The level of education with the highest percentage of teleworkers was an advanced college degree with 20% of respondents being teleworkers.

· Survey respondents are not proportionately representative of industries in the three counties of the Portland metropolitan area as shown in Figure 5-1. Respondents disproportionately over-represent employment in government agencies and finance, insurance, and real estate while under-representing many other industries. The reason for this disparity in distribution stems from the fact that two of the biggest organizations that received and responded to the survey were government agencies, and a third large organization was a financial institution.

· The most commonly listed occupations of survey respondents, as shown in Figure 5-2, by survey respondents are professional (38%) and administrative/clerical (27%). Middle management and project management also account for a large percentage of respondents' occupations while sales and senior management make up a relatively small portion of the survey respondents.

---

[25] U.S. Census 2000 for Portland PMSA. www.census.gov

Figure 5-1. Industry of Survey Respondents and OLMIS Average Employees for 2000
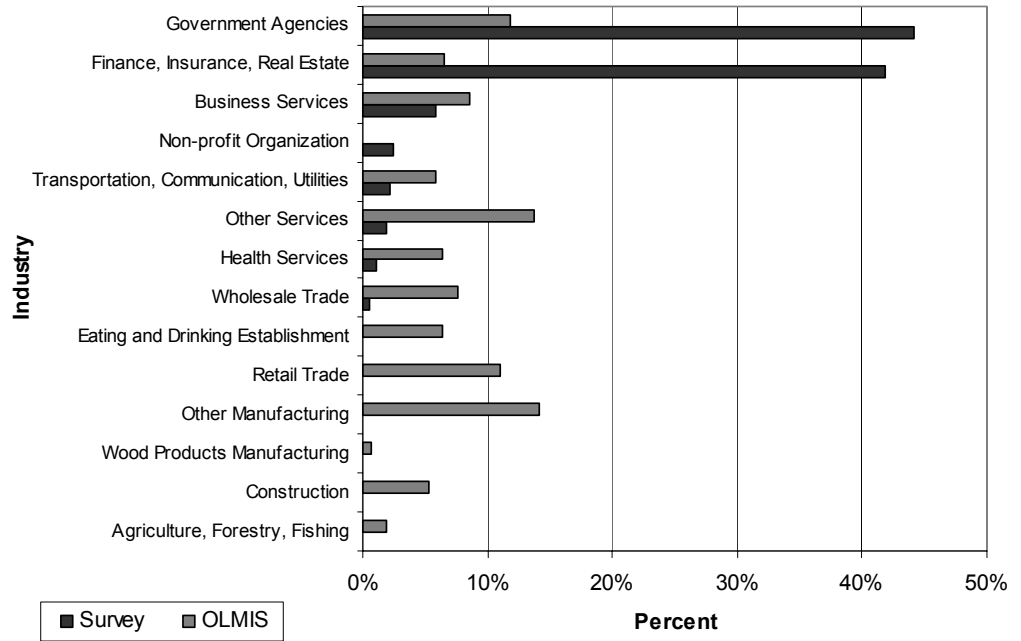
Source: Employee Telework Program Evaluation Survey and Oregon Labor Market and Information System (http://www.qualityinfo.org/olmisj/CEP)

Figure 5-2. Occupations of Survey Respondents

Source: Employee Telework Program Evaluation Survey

Number of Employees Offered the Option of Telework

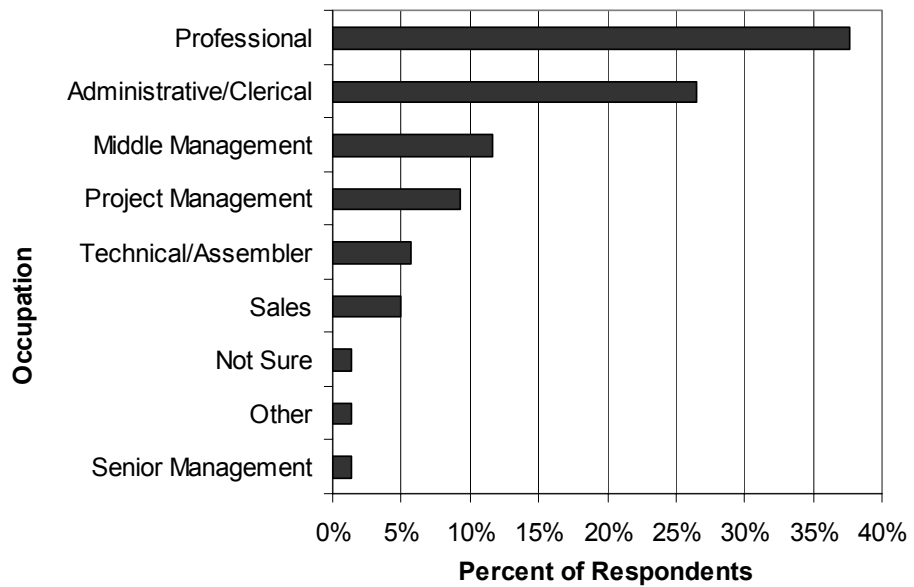A total of 52 respondents who currently telework were asked how they started telework. Only 19% of respondents stated that their employer approached them about telework, while the majority (64%) stated that they approached their employer. About half (48%) of teleworkers have a written telework agreement with their employers.

For respondents who stated that they do not currently telework, 79% indicated that they would telework if offered the option by their employer, and 95% indicated that they had heard about telework prior to the survey. When asked to identify reasons why they don't currently telework, 37% indicated that their employer does not offer telework as an option. For respondents to the email questionnaire who do not telework, 10 of the 12 non-teleworkers indicated an interest in telework as a work option.

The Oregon Population Survey[26] shows similar results. Among respondents in Clackamas, Multnomah, and Washington counties, 79% of respondents would be interested in working from home at least one day a week.

Table 5-1 illustrates that the other most common barriers to telework identified by non-teleworkers include the need to work closely as a team, tasks cannot be done at home, and the need for specific on-site equipment.

Table 5-1. Barriers to Telework

Reasons Non-Teleworkers Do Not Telework	Percent
Employer does not offer telework	36.7%
Need to work closely as a team or need to see clients often	30.4%
Tasks cannot be done at home	28.5%
Need specific on-site equipment	26.6%
Do not have home office equipment	24.4%
Prefer office setting	16.5%
Stay more focused at workplace	16.5%
Other	9.8%
Family members will distract me from my work	9.5%
Concerns about isolation	6.3%
Do not enjoy working independently	1.3%

Source: Employee Telework Program Evaluation Survey

Note: Respondents could select more than one reason

---

[26] Since 1990, the State of Oregon has conducted a biannual telephone survey, the Oregon Population Survey, of households in Oregon to collect information about socio-economic characteristics of state residents

The barrier most commonly mentioned in the questionnaire was the need for hardware/software or files from the office. Several respondents mentioned that there is management support for telework, but they did not have the necessary equipment to telework.

Number of Employees who Telework

Fifty-two survey respondents indicated that they currently telework one or more days per week representing 14% of the total number of respondents. Five of the seventeen email questionnaire respondents indicated that they currently telework.

"I have been with my company 17 years due to the flexibility of telework. It was difficult to manage home/work until telework was supported by my company."

Employee Survey Respondent

About half (52%) of the teleworkers have teleworked for three years or more, 27% have teleworked one to three years, 15% have teleworked six to twelve months, and 6% have teleworked less than six months. This shows the tendency among the telework respondents that once he/she starts telework, they continue to do so for a long time, and the majority (87%) of respondents indicated that their job descriptions have not changed significantly as a result of telework.

Respondents identified a wide variety of tasks that they do on days they telework as seen in Table 5-2. All tasks identified with the exception of data entry had high responses as potential tasks for telework days. Particularly, the results show the very frequent use of email on telework days, as 51 out of 52 respondents identified email as a method of communication when they telework. There were also a large variety of tasks identified in the "other" category including: proposals, engineering analysis, computer programming, report preparation, and research

Table 5-2. Tasks Performed on Days Respondents Telework

Type of Tasks	Percent of Respondents
E-mailing	98.1%
Telephone Calling	80.8%
Writing	78.8%
Project Management	73.1%
Reading	73.1%
Editing	71.2%
Other	32.7%
Data Entry	28.8%

Source: Employee Telework Program Evaluation Survey

Note: respondents could select more than one task

About one-third (34.0%) of non-teleworker respondents indicated that they do sometimes telework, and 27% indicated that they have teleworked in the past.

Most non-teleworker respondents felt that at least a portion of their work could be done at home as shown in Table 5-3. Respondents to the questionnaire indicated that if they could overcome hardware/software issues, there are a variety of tasks that could be done at home.

Table 5-3. Percent of Work that Could be Done at Home

Percent of Work	Percent of Respondents
None	14.3%
Less than 10%	20.0%
10-24%	24.3%
25-49%	18.0%
50-74%	16.0%
75-100%	7.3%

Source: Employee Telework Program Evaluation Survey

Number of Days per Week that Employees Telework

There were a wide variety of responses to the question of how many days per week teleworkers actually work from home or another location closer to their home. The majority of teleworker respondents telework one day per week (53%), while 31% telework 2 to 4 days per week. Of respondents, 15% indicated that they telework 5 days a week, which does not fit into OOE's definition of telework, and they are considered home-based workers.

The majority of respondents (86%) also state that they telework the same day every week and of that percentage, and 77% have certain hours set aside when co-workers can reach them. About half (52%) of teleworkers indicated that they work on the weekend or days off as a result of telework

Telework Assistance

One of the key aspects of this study is to find out how effective OOE's outreach and assistance has been to organizations at all levels— including both employers and employees.

When asked what types of information they had received about telework, half (50%) of the employee survey respondents were not sure about what they had been provided. Because OOE's "saturating the market" approach to make telework (or telecommuting) a household work took place in the late 1990's, employees may not remember when or how they first heard about this concept. Figure 5-3 illustrates the breakdown of other types of information that respondents have received.

"I would love to work from home, but I didn't know enough about it to approach my employer."

Employee Survey Respondent

Figure 5-3. Types of Information Received by Respondents

Percent of Respondents
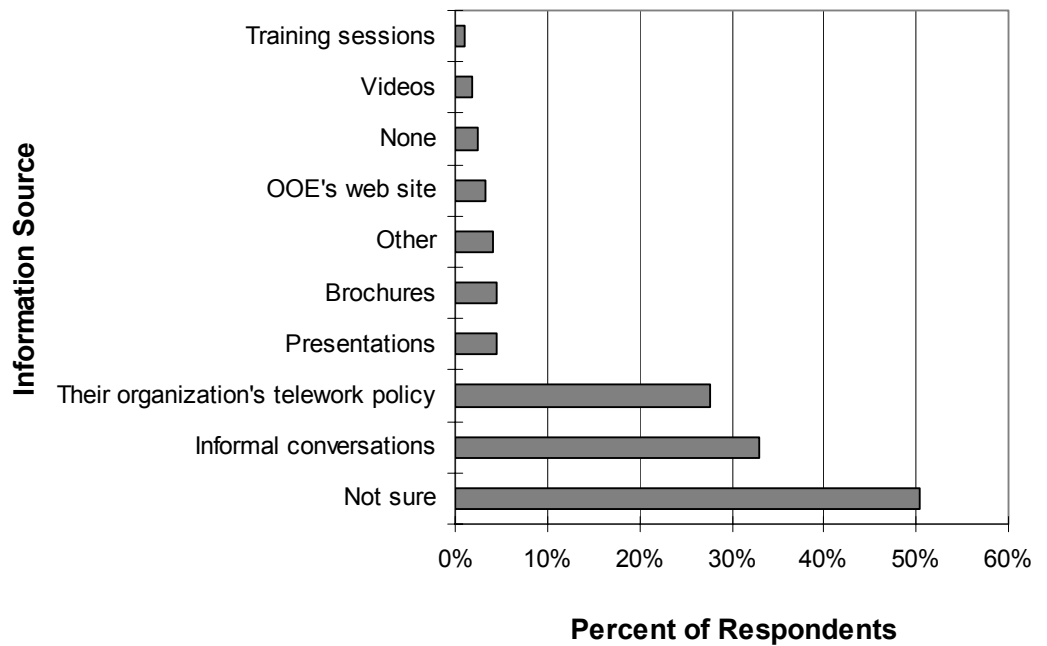
Source: Employee Telework Program Evaluation Survey

The most common sources of telework information for employees, as seen in Figure 5-3, are information from the respondent's organization, and conversations with co-workers or teleworkers. Very few respondents reported receiving information in the form of presentations, training sessions, videos, and from OOE's website. The results indicate that employees tend to obtain their information about telework within their organizations rather than from external information sources. One source frequently mentioned as an "other" source was IT (Information Technology) or IS (Information Services) departments.

Respondents were generally positive about the helpfulness of the information they received, with more than 72% stating it was either very or somewhat helpful.

Responses to the question about where the respondent received their information regarding telework were similar to the responses for the question regarding types of information. As Table 5-4 shows, the largest source of information for respondents was their co-workers or teleworkers (24%), and most respondents (98%) were unsure of the source of at least some of the information they have received.

Table 5-4. Sources of Telework Information

Information Provider	Percent
Not sure	98.4%
Co-worker or Other Teleworker	23.7%
Human Resource Department	15.5%
Supervisor	13.1%
DEQ	8.2%
OOE	4.1%
Other	3.8%
Internet	2.7%
TriMet	1.4%

Source: Employee Telework Program Evaluation Survey

Of those respondents who indicated that they currently telework, only 10% indicated that they began telework as a result of informational materials that they had received.

The response on the questionnaire to the issue of OOE's outreach efforts was more positive on the issue of outreach for employees. A majority of respondents (12) felt that OOE, DEQ, and TriMet should provide additional information to employees regarding telework.

Number of Single Occupancy Vehicle Trips by Teleworkers

According to the survey, 58% of respondents travel to work by single occupancy vehicle. Another 24% travel by light rail, bus, or streetcar, 8% carpool or rideshare, 6% bike, and 1% walk to work.

Approximately the same percentage of teleworkers and non-teleworkers use single occupancy vehicles as their main mode of commuting. Teleworkers mostly commute by single occupancy vehicle (61%), then light rail (24%) and carpool or rideshare (8%). For non-teleworkers, 57% commute by single occupancy vehicle, 24% by light rail, and 8% by carpool or rideshare.

Vehicle Miles Traveled by Teleworkers

In addition to the way that employees commute, the number of vehicle miles traveled for commuting to work is an important indicator of employees' commute patterns. OOE's goal is to significantly reduce the number of vehicle miles traveled by commuters in the Portland metropolitan area. On average, survey respondents commute 10 to 12 miles (mean= 12.57, median= 10.0) from their home to their place of work. This is an average of 20 to 25 miles round trip each day. Respondents also indicated that they spend almost an hour commuting to and from work every day (mean= 60.41 minutes, median= 50 minutes).

There is a difference in the average vehicle miles traveled by teleworkers and non-teleworkers. Respondents to the survey who telework had, on average, a larger number of vehicle miles traveled than non-teleworkers. Teleworkers average a commute of 12 to 14 miles (mean= 14.0, median= 12.0) from their home to work or 24 to 28 miles round trip each day. Non-teleworkers average a commute of 9 to 12 miles (mean= 11.71, median= 9.0) from home to work or 18 to 24 miles round trip each day.

Employee Satisfaction with Telework

"The flexibility I achieve by telecommuting has increased the quality of life for me and my family. The stress related to driving to work during peak traffic has been eliminated."

Employee Survey Respondent

One measure of the success of telework is to examine the satisfaction of teleworkers. The majority (69.2%) of teleworkers are very satisfied with their telework experience, and 19.2% are somewhat satisfied, showing that overall, most of teleworkers have a positive attitude about this work option.

Respondents were very positive in their opinions about the benefits of telework as Table 5-5 illustrates. Close to 60% of respondents answered, "strongly agree" that telework suits their job responsibilities, provides more flexibility in their lifestyle, and saves time, and money, while reducing stress.

Table 5-5. Teleworkers' Perceptions of the Benefits of Telework

Benefit Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Telework suits my job responsibilities.	60.8%	35.3%	2.0%	2.0%	0%
As a telworker I feel more productive and have higher quality work.	49.0%	41.2%	7.8%	2.0%	0%
I have an improved work environment when I telework.	33.3%	31.4%	25.5%	7.8%	2.0%
Telework gives me greater job satisfaction and a greater sense of accomplishment.	41.2%	31.4%	15.7%	7.8%	3.9%
Telework provides more flexibility in my lifestyle.	58.0%	36.0%	4.0%	2.0%	0%
I have more responsibility andfeeling of trust as a telework employee.	27.5%	25.3%	37.4%	7.8%	2.0%
As a teleworker I save time, money, and reduce my stress level by not commuting every day.	58.0%	32.0%	4.0%	2.0%	4.0%
Telework improves my overall quality of life.	54.9%	29.4%	13.7%	2.0%	0%
Telework is part of the reason why I have stayed in this position.	31.4%	27.5%	11.8%	27.5%	2.0%
Telework helps to balance work and family.	44.0%	40.0%	12.0%	4.0%	0%
Person and professional benefits of telework outweigh its cost.	51.0%	29.4%	17.6%	2.0%	0%

Source: Employee Telework Program Evaluation Survey

While respondents generally agreed with the statements about lifestyle benefits of telework, they were slightly more ambivalent about the

statements related to telework providing an improved work environment.

The statements about the costs of telework did not garner as much agreement as the benefit statements, but they did not have strong disagreement either. Respondents' attitudes toward cost statements about telework, as seen in Table 5-5, were generally fairly neutral or received more disagreement than agreement. This shows that teleworkers generally do not perceive that there are large costs associated with telework with the exception of working longer hours as a result of telework.

Table 5-5. Teleworkers' Perceptions of the Costs of Telework

Cost Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
On telework days, I work longer than If I was working at my main office.	15.7%	29.4%	23.5%	27.5%	3.9%
Telework disrupts the organizational culture and teamwork of my position.	3.9%	11.8%	11.8%	51.0%	21.6%
I am concerned about the security of my information and files when I telework.	3.9%	0.0%	11.8%	43.1%	41.2%
Personal start-up costs of telework were expensive.	0.0%	13.7%	23.5%	47.1%	15.7%
Telework makes me feel socially and/or professionally isolated.	9.8%	21.6%	15.7%	37.3%	15.7%
I receive less managerial support as a teleworker.	3.9%	15.7%	34.4%	38.7%	4.3%
As a teleworker I feel more tension from my co-workers.	3.9%	5.9%	29.4%	39.2%	21.6%

Source: Employee Telework Program Evaluation Survey

Raised Awareness of Employees

The question of whether telework information raises awareness about environmental issues associated with commuting was addressed in the email questionnaire. There were five respondents to the email questionnaire who telework and the four that answered this question all responded that telework has not raised their awareness. Two of the respondents indicated that they already had a high awareness of environmental issues before being introduced to telework. The brevity of the responses limited any further conclusions on this issue.

Equipment for Telework

OOE has been addressing the equipment issue for teleworkers in its outreach and assistance. The survey results show that half (50%) of respondents provide their own equipment, 25% provide it together with their employer, and employers provide equipment for the remaining

25% of teleworkers. Ninety percent of respondents also indicated that the worked at home when telework, while only 6% work at satellite offices. Equipment was cited as the main barrier to telework by questionnaire respondents interested in telework.

Communication with Teleworkers

Communication between teleworkers, managers, and co-workers is one of the most important issues related to telework. Table 5-6 illustrates how teleworkers report that they communicate with their co-workers and employers on their telework days. This shows that email, voice mail, and phone calls to and from the office are the most frequently used types of communication. These results parallel those of the employer survey presented in Chapter 4.

Table 5-6. Methods of Communication

Methods of Communication	Percent
E-mail	96.2%
I call into the office	76.9%
Voice-mail	67.3%
Office calls me	57.7%
Fax	15.4%
Call forwarding	9.6%
Other	7.7%
Written correspondence	3.8%

Source: Employee Telework Program Evaluation Survey

Email and telephone calls are also common methods of communication according to the email questionnaire. One respondent stated that communication for telework is positive if people work at it, and technology is an important key to the process of effective communication.

Attitudes of Management and Co-workers Toward Telework

Attitudes of teleworkers' managers and co-workers are key to successful telework programs. Respondents who currently telework feel that management at their organizations is generally supportive of telework. Teleworkers indicated that their co-workers are also generally supportive of telework with more than 71% reporting positive attitudes of co-workers, and only 8% reporting negative attitudes.

Figure 5-4 shows that responses from non-teleworkers showed more uncertainty about management's attitudes, and more perception that these attitudes are negative.

Figure 5-4. Perceptions of Management Attitudes by Employees
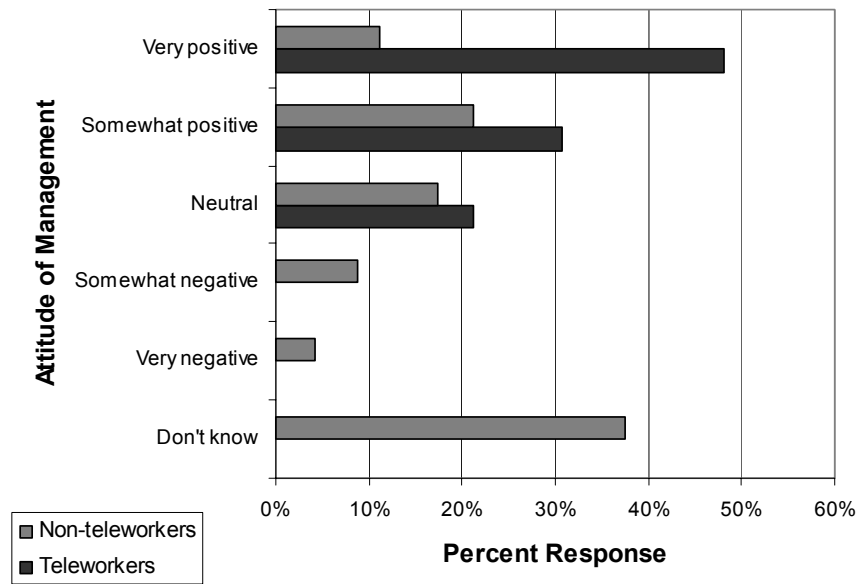
Source: Employee Telework Program Evaluation Survey

The impact of managers' opinions or decisions related to telework becomes more clear, however, in non-teleworkers' statement that the employers not offering telework is the most common reason why they do not telework. This was reinforced by the breakdown of the "other" responses shown in Table 5-7.

Table 5-7. "Other" Barriers to Telework

"Other" Barriers	Percentage
Management does not encourage/allow	20.3%
Need to be available	15.2%
Technical/Security issues	10.1%
Never asked	10.1%
Type of tasks	8.9%
Need equipment or files at the office	8.9%
Not available	7.6%
Work and home balance	6.3%
Other	6.3%
Live in Washington	5.1%

Source: Employee Telework Program Evaluation Survey

Of the 79 responses to the "other" category, 20% of respondents commented that management discouraged telework (often despite having a telework policy) or does not allow telework.

The importance of management acceptance of telework is also a major theme in the comments section of the survey where 28% of comments were management related. What these comments emphasize is that with management approval and support, telework is a positive

experience for the employee, if management does not allow or actively discourages telework, it does not happen or is difficult.

Responses to the email questionnaire about whether management in their organization supports telework are mixed. Six people feel that management's attitude towards telework was mixed and depends on the situation. Six said that management is supportive of telework, only three said management is not supportive and two are unsure. A frequent observation made on the questionnaire is that management's attitude towards telework varies by individual managers' opinions about working and measuring by process or by productivity.

Almost two-thirds (59%) of non-teleworkers have teleworkers as co-workers. Of that group, 24%, 71 respondents, said there were challenges to working with teleworkers. Table 5-8 makes clear that the biggest challenge to working with teleworkers is accessibility of the teleworkers to their co-workers.

Table 5-8. Challenges to Working with Teleworkers

Challenges working with teleworkers	Percentage
Accessibility	52.1%
Maintaining work environment	15.5%
Other	14.1%
Scheduling	12.7%
Hesitate to call	5.6%

Source: Employee Telework Program Evaluation Survey

Email respondents also acknowledged that telework can present problems for co-worker relations. Specifically, it can be problematic on issues of accessibility on short notice, or teamwork, but they also indicated that these are issues that can be overcome. One respondent cited using a database that is updated daily so that all co-workers know what is happening on projects.

Formal versus Informal Telework Policies

The email questionnaire asked respondents their opinions about whether having a formal or informal telework policy makes a difference. The responses to this question were not clearly defined, and there was uncertainty expressed by the respondents as the usefulness of a formal policy. Two indicated that they didn't see that it made a difference but qualified their answers to providing general guidelines. One person said it does not make a difference and one person said that having a formal policy does make a difference.

Conclusions and Recommendations

This chapter presents CPW's conclusions from our evaluation of the Oregon Office of Energy's (OOE) Telework Program. This chapter considers information from the literature review, agency interviews, employer survey, employer focus groups, employee survey, and employee questionnaire.

This chapter begins by recognizing limitations of this evaluation. Next, general conclusions about telework are presented, followed by conclusions about OOE's outreach. CPW then presents a series of recommendations concerning existing and future telework outreach efforts. The chapter concludes with a discussion of options for sustaining the Telework Program.

The logic model and its corresponding indicators, presented in Chapter 2, serve as the framework for this programmatic evaluation. The scope of our study and the research methods employed limit our ability to draw sound conclusions about some of the program's high-level outcomes and goals. The scope of our research limits our ability to comment on program goals of reduced air pollution, traffic congestion, and gasoline consumption. Moreover, we cannot make unequivocal statements concerning program goals and some high-level outcomes, our research provides anecdotal evidence that telework can and is achieving these goals. The specific contribution of OOE's outreach activities to meeting these goals is less clear.

While the methods employed for this study introduce the limitations described above, they allowed CPW to address many of the activities and outcomes detailed in the logic model. We point out these limitations where appropriate in the conclusions that follow.

Conclusions

Several themes emerged in the data gathered for this project. This section summarizes the key conclusions and the implications of those conclusions.

Telework in General

- **Agencies, employers, and employees are motivated to participate in telework for different reasons and each have different concerns about telework and perceptions of telework's benefits**. The primary goals of the three key

agencies involved in telework as a Transportation Demand Management (TDM) strategy are to reduce traffic congestion, reduce air pollution, and save energy . Employers that have telework programs perceive telework as a way to recruit and retain employees and as a cost saving mechanism in some cases (it is notable that a significant percentage of employers simply are not interested in telework). Employees perceive telework as a work option for the lifestyle benefits it offers them through cost savings related to commuting, schedule flexibility, and reduced stress. This conclusion has significant implications: the motivations that attract the three groups to telework are substantially different, which in turn has implications for outreach and marketing of telework as a TDM strategy.

· **Both informal and formal telework programs are effective**. The type of program most suitable for an organization depends on the organization's culture and needs. Some organizations use telework on an ad-hoc basis when it is needed, others simply have a spoken agreement between employees and management, while other organizations have a formal written telework policy and agreement. Regardless of the type of program, telework confers the same benefits to agencies, employers and employees.

· **Promoting telework as one of several commute options is an effective strategy**. Organizations that promote telework often offer it as one of several commute options available to employees. Other commute options include bus pass subsidies, biking, and carpooling. Similarly, in assisting organizations with ECO Rules compliance, DEQ and TriMet have promoted telework as one of the many commute options that can be used to satisfy these requirements. This is consistent with Metro's overall TDM strategy which takes a multi-faceted approach.

· **Management support and employees' demand for telework are two of the key components to initiating telework programs.** The agency interviews, the employer and employee survey, and the focus group meetings illustrated that management support is an important factor of telework success in organizations. It is, however, often employees' requests, interest, and enthusiasm that initiates the start-up process. In some cases organizations have a written policy, but managers' negative perceptions of telework inhibit telework from being considered as a work option for employees. Our research suggests that additional outreach to these organizations will largely be ineffective.

· **Telework outreach is difficult.** CPW encountered many obstacles when recruiting participants for this evaluation. A variety of involvement was requested, and it was very difficult to get even minimal responses. This echoes the experience of OOE staff that management may be difficult to convince and

that they are often met by resistance when doing outreach. When managers are not interested in telework it is difficult to reach the employees who are potential teleworkers.

- **The ECO Rules do not appear to be a major contributing factor in the establishment of telework programs.** Although the results are not significant, the ECO Rules requirements provided an opportunity for OOE to educate employers about telework. Only 23% of organizations with a telework program indicated that they offer telework as a means to satisfy the DEQ's ECO Rules requirements. Another 25% of respondents are not subject to the ECO Rules because of organizational size.

- **Organizations have faced different barriers depending on type of industry, as well as the size of organization.** For example, small organizations may not have human resource departments to coordinate the start-up process; however they typically have a less complex process than large organizations. Information technology-related industries may have more computer-literate workers than other industries where technology education is an issue to promote telework.

OOE's Outreach

Program Implementation

- **OOE has done a good job of implementing outreach activities**. The agency has provided sufficient staff resources to accomplish outreach, has developed a comprehensive set of outreach materials, and has "touched" a large number of organizations either directly or indirectly through its efforts.

- **OOE's dedicated, enthusiastic, and motivated staff has taken a proactive approach in actively seeking out organizations to work with.** OOE's activities demonstrate that they have worked hard to establish a successful program and reach out to many different employers. The employer focus groups suggest that OOE's outreach efforts are widely recognized by employers in the region.

- **Outreach takes time to be effective.** The longevity of OOE's Telework Program is to be highly regarded. OOE's program has been in existence for more than 10 years, and telework in the Portland area has grown during this period, thus reducing commute trips.

- **OOE has successfully collaborated with DEQ, TriMet, and Metro in marketing telework to employers.** This collaboration is evident in the fact that 56% of employer survey respondents identified at least one of the agencies as an information source on telework.

- **The OOE database does not adequately track outreach activities.** The structure and content of the database made it difficult to track specific outreach activities and outcomes.

Outreach Methods

- **OOE's program has taken a multi-faceted approach.** OOE has implemented both direct and indirect outreach using a variety of tools and materials to reach many organizations. OOE staff mentioned that a one-on-one approach seems to have the highest success rate, but is also the most labor intensive. OOE's work with human resource and other associations to give presentations is an effective way to reach groups of employers— nearly 32% of employers indicated they obtained information on telework from human resource or managerial associations.

- **The Internet is a powerful outreach tool for telework information.** OOE's Website is well-organized, informative, and highly respected.[27] The Internet was the most common place employers indicated that they had obtained telework information.

- **The Business Energy Tax Credit (BETC) for telework is not an effective incentive to promote telework programs.** The employer survey shows that nearly 90% of respondents did not consider applying for the tax credit. Reasons for this include insufficient information about it, not a large enough incentive, and complicated paperwork. Focus group participants echoed these feelings towards about BETC and also commented that there is too much tracking to do in order to receive the credit. This indicates that cost saving opportunities are not a large factor in employers' decision to offer telework as an option to employees.

- **OOE's outreach has been focused primarily at the management level of organizations**. Because OOE feels that establishing management support for telework is essential to its success, this is the level at which they have focused their efforts. By comparison, employees have very little direct contact with OOE and its partner agencies, and instead receive most of their information from internal sources—such as their colleagues, human resource departments, and information technology staff. Based on our research, we conclude that this is an appropriate approach.

- **OOE has reached a variety of organizations indirectly and offers its services to all types of industries. Certain types of organizations have utilized OOE's assistance to**

---

[27] CPW was unable to gather data on OOE Web site access. Anecdotal evidence suggests that the Web site receives considerable use and is highly respected.

a greater extent that other types of organizations. OOE's contact database shows that the services and manufacturing industries have requested the greatest amount of assistance while construction and agriculture have requested the least.

Outcomes

· **OOE has had contact with many organizations in the Portland region.** OOE has "touched" all organizations in the Portland area through its indirect outreach. OOE, however, has only provided direct assistance and service to a small portion of the total number of organizations in the Portland area.

· **OOE has successfully made "telework/telecommuting" a household word**. OOE's "saturating the market" approach has raised the awareness of employees throughout the region about telework as a work option. When the ECO Rules initially began in 1996, OOE distributed materials to every employer subject to these requirements. In addition, they have sent telework information to all organizations in the Portland area as a part of DEQ's Clean Air Action Day mailings. Ninety-five percent (95.1%) of the employee respondents in our survey stated they have heard about telework or telecommuting.

· **Many employees in the Portland area are choosing to telework.** Results from the latest ECO Rules survey show that the number of commute trips reduced through telework has increased steadily over the past several years, and the Oregon Population Survey indicates that 27% of respondents telework one or more days per week. The employee survey shows that once teleworkers start to telework they are generally satisfied with this work option. More than half (51.9%) of teleworker survey respondents have participated in telework for 3 or more years.

· **Telework does not appear to raise awareness of environmental issues associated with commuting, but organizations may adopt telework in part for environmental reasons.** Most employers and employees do not perceive that their environmental awareness has been raised as a result of telework. One focus group participant commented that the "green team" at her organization was the vehicle through which telework became a work option at her organization.

Recommendations

The conclusions presented above suggest that telework has many benefits to agencies, employers, and employees. Given our conclusions, CPW feels public agencies should continue to promote telework as a TDM strategy. In its "2002 Regional Transportation Demand

Management Program Evaluation" Metro identified twelve recommendations as next steps for the Telework Program.[28]

Based upon the conclusions above and building upon Metro's recommendations, CPW has developed the following set of recommendations for the continued implementation of a successful telework outreach program. Recommendations are presented in the categories of marketing, target audiences, outreach activities, and collaboration.

Marketing

- **Pursue innovative approaches to indirect outreach**. Possible strategies include bumper stickers, murals, bus tails, magazine articles, and industry-specific trade shows.

- **Continue/expand media exposure to telework.** The focus should continue to be at the management level since it is evident that these are the key individuals within an organization that must be convinced of the merits of telework. Advertisements in magazines, which specifically target managers may be one strategy for this recommendation.

Target Audiences

- **Expand outreach to target non-ECO employers.** Much of OOE's outreach has been aimed at the larger employers (more than 50 employees) in Portland who are subject to the ECO Rules. As such, there is potential for expanding telework among smaller organizations. Outreach should be directed toward these smaller organizations. This may require the development of new materials (see recommendation below).

- **Direct ECO employer outreach toward those employers with no teleworkers.** OOE has specifically targeted ECO employers who have at least one teleworker. Although it may be more difficult, outreach aimed at organizations without any current teleworkers may produce greater increases in the number of employees who telework and the number of telework programs in the Portland area.

- **Provide industry-specific and organizational size-specific materials.** Develop a series of materials that address the particular concerns of different types of industries. Also develop materials that address the needs of small organizations. These materials should incorporate case studies from similar organizations as a way to motivate and convince managers that telework will benefit their organization.

---

[28] Metro, "2002 Regional Transportation Demand Management Program Evaluation: Volume 2," April 10, 2003: 95-98. http://www.metro-region.org/library_docs/trans/vol2_officeofenergy.pdf 6/3/2003.

Collaboration

- **Continue and expand collaboration between OOE, Metro, DEQ, and TriMet as a telework marketing team.** Conduct quarterly meetings to develop and implement marketing tactics for telework as a TDM strategy; ensure all organizations have up-to-date materials to distribute.

- **Diversify and expand the types of associations OOE works with in doing outreach.** OOE has successfully worked with human resource associations and conducted many presentations to groups of employers. There may be room for expansion in this outreach strategy. Explore opportunities for collaboration with information technology associations, small business associations, chambers of commerce, unions, rotaries, and non-profits (transportation and environmentally related). Use these connections to create a network of trainers.

Outreach Activities

- **Provide examples of cost-based approaches to employers**. One example presented by a focus group participant explained that telework is part of her organization's plan to address parking constraints. Her organization allocates each employee a parking space for only four days a week and employees must use an alternative commute mode, such as telework, for the fifth day.

- **Update outreach materials to address the most current issues.** Technology, liability, security, and managing by results are the issues identified frequently by employers in this evaluation process. These are issues that can be addressed through outreach at the management level.

- **Improve upon current documentation of outreach efforts**. Simplify and restructure OOE's telework tracking database to improve its functionality. Create a better system for coordination among OOE, TriMet, and DEQ's tracking mechanisms.

- **Evaluate the BETC Program to determine who is using it and for what types of projects.** If the BETC continues to be offered for telework, develop a pool of pass-through partners that can be drawn upon for public agencies and non-profits wanting to participate in BETC. Also, investigate other incentive packages that could be developed for organizations.

Sustainability of the Telework Program

This study does not determine the opportunity cost of investing in telework outreach as opposed to other commute modes, nor does it determine exactly how much potential there is for telework to continue to grow. The results of this evaluation, however, show that there are

many employees interested in this possibility and many employers who might consider offering this work option in the future.

As OOE scales back its efforts in the Telework Program, Metro will need to decide what level of service they want to provide and what level of investment they want to make in telework as a TDM strategy. If little or no funding is invested in telework outreach, strategies will be primarily passive (i.e. providing website, sending kits when requested), and it is unlikely that telework will continue to grow significantly. If, however, funding were to continue at the same level, more active outreach, which appears more effective, could continue to be offered—including presentations and consultations.

Agency Interviews

Agency Focus Group Meeting

On February 18, 2003, a focus group was held at Metro (600 NE Grand Ave, Portland) with representatives from Oregon Office of Energy (OOE), Metro, and TriMet, by teleconference, together with members of the CPW team.

The purpose of this meeting was for the CPW team to get more information from representatives of the agencies involved in telework about their roles in the telework outreach process and their perceptions about telework and its effectiveness. This information will be used in the development of the Program Description for the Telework Program Evaluation being conducted by CPW.

Minutes

The focus group began at 2:10 pm. Everyone introduced themselves and their position. The representatives from introduced themselves via conference call.

Jennifer, the CPW team leader, provided the group with a review/methodology of our team's progress to this point.

Naoko began with the first set of questions, designed to achieve a more comprehensive idea of the internal processes and agencies roles in the telework outreach process.

1. What is major role each agency plays in terms of implementation?

OOE has built telework through the use of partners—including TriMet, Metro, and Oregon Department of Environmental Quality (DEQ)—and around marketing, making sure partners are involved and can gain knowledge as well.

TriMet has a package of materials that they hand out to employers on an on-going basis. Theses materials include information about the Business Energy Tax Credit, DEQ's ECO Rules, and –newsletters.- TriMet also collects telework-related data with ECO surveys that provides insight on which organizations are participating and the overall picture of telework.

OOE works with anyone who has employees. They have materials ready and are continually spreading the word about telework. OOE also responds to referrals. OOE serves as the "expert" agency in the telework arena and the other agencies serve as a "marketing team."

Metro provides funding and policy framework through the grant to OOE and policy guidelines for them. Telework is a part of Transportation Demand Management (TDM) and Metropolitan Transportation Improvement Program (MTIP). Telework is also involved with the Regional Transportation Plan (RTP), and cities and counties within the Metro region have to comply with the RTP and its goals. Telework is one of the TDM strategies available for compliance with the RTP. Metro funds telework primarily as one of the options for jurisdictions to meet TDM goals and comply with the RTP. At the local level, jurisdictions update their plans every 3 years. When the local jurisdictions update their plans, Metro reviews them and checks to see that they are consistent with the RTP.

One of TriMet's marketing representatives noted that he provides information to employers about TDM, and promotes increased rider-ship, bicycle-riding, carpooling, and other commute options to help them meet their needs. TriMet also provides information about tax benefits. They also give out info to those organizations that purchase passes from Tri-Met based on what works for them.

2. Have coordination efforts changed over time? Could collaboration be improved?

Metro noted that Kathy King is basically the main component driving the Telework Program, and that her dedication is what has made telework successful. The question is how can there be continued success without so much involvement by OOE? There needs to be stronger communication with the local jurisdictions. What kind of tracking mechanism could be put in place?

OOE is providing telework services because they have the funds, but the grants are running out. OOE's strategy in establishing the Telework Program was to go in, build up the program so that it is self sufficient, and then step back to a less active role. The goal is to phase back OOE's involvement to half the level of their present efforts in the next six months so that OOE no longer serves as the main body that does telework outreach. They want to "train the trainers." They will continue to keep the website up, produce the tools, and work with the big employers (i.e. INTEL-250 employees). But they'll be stepping back from the more active roles like recruiting and outreach.

Metro wants to continue and expand the program, but they don't currently have anything in place to accomplish that goal. Telework is really booming—especially now, given the new technology that is available.

OOE has accomplished a lot with the tools that they have developed, but they think they can still provide the same level of service when phasing out, because of the strategy they used in developing the program.

Metro noted that currently it's hard to keep track of what is happening. What type of tracking mechanisms can we use to find out more about the people that use telework?

OOE has an extensive database, and they have been calling people back as follow-ups, on an almost annual basis. However, they won't be doing that anymore, partially because they have contacted some of those organizations so many times. OOE noted that Susan Drake at DEQ is sending ECO survey data which provides information on telework. Telework is at the top, right now in terms of what employers want.

TriMet has maintains a database which it shares. The agencies have not yet linked databases, so that data could potentially be coordinated among the agencies.

OOE thinks there is still a lot of potential to continue telework marketing with Metro. The TDM subcommittee meets often and from that there is an opportunity to take advantage of BETC, and they will always continue to work with Tri-Met for other marketing.

Next, Judy asked questions about connections with employers and outreach in general.

3. What are some general reactions you get when you talk to employers about telework?

OOE stated that there are a variety of different reactions, such as "this is really great," or "it is nice to actually develop a policy for telework." There is also the "over my dead body, we do not want to have any teleworkers here!" type of reaction. Management style is a huge factor in how employers respond to OOE's outreach. Younger managers are more accepting, especially with the huge advancements in technology. The type of organization is another indicator of the type of response you would get, i.e. manufacturing –impossible, medical and high-tech –good.

OOE also sees that some companies have been forced into offering telework due to space issues. Some organizations are running out of room, and the costs of real estate are huge. Culture in the organization is another big factor-

In terms of who teleworks, OOE finds that teleworkers are generally in the more professional categories of occupations. Clerical jobs, for example, require more equipment and supervision. OOE emphasized, however, that the job components are more important than the job description in determining whether someone is suited for telework.

TriMet reiterated that the feasibility depends on the job components as well as the types of industry. Often there is lots of interest by employees, but there is resistance from employers because of issues of trust and privacy/security.

Educating employers and employees about the option of telework is a big part of OOE program, as is showing them where they can go for

information. The idea is to educate organizations, create greater awareness, and distribute information about telework.

TriMet brings up the topic of telework as commute option when talking to employers. Their presentation of information about telework varies depending on the marketing representative's approach. TriMet promotes telework as one of several options for employers seeking to reduce commute trips. They have found response for telework to be rather small.

Metro does not deal with the organizations directly, but they may be able to get more information out to the public. Metro can do more marketing especially for local jurisdictions, but public acceptance of governments permitting telework is an issue—people do not like to see public servants working at home.

4. Are there certain types of organizations targeted in outreach?

OOE has targeted marketing groups, state agencies, and certain types of industries in its outreach. While they note that the type of industry is not especially important in determining the feasibility of telework, the high tech industry is more conducive to their efforts. Other groups/industries that OOE has targeted include: hospitals, people with disabilities, CPAs, accountants, and tax preparers. They look at types of jobs and tasks suited to telework, then target their efforts based on that information.

Tri-Met noted that they have a few opportunities to promote telework. Their main emphasis is promoting bus passes—that is, shifting commuting from cars to mass transit.

5. What type of outreach do you think is most successful?

Tri-Met finds that the ECO survey process is a good way to start the conversation about commute options with organizations. They also have OOE's brochure on the BETC which is helpful. TriMet hands out many packets which include this information..

The ECO survey data forms includes a question about telecommuting, but there is a question of whether employees consider themselves teleworkers if their company does not offer a formal telework program.

OOE finds that flexibility in setting up programs is important, depending on management styles. OOE's website is great and receives many "hits." It has been rated # 7 in the nation on telework websites, and now just moved to # 5. Clean Air Action Day mailings distributed by DEQ to Portland employers, gets a great response from people.

TriMet sees lots of hits on its telework section of its website on Clean Air Action Days. They know this because the monitor and analyze the website hits.

Presentations also get good responses from employers.

Air quality, congestion, energy savings, and commute distance are not necessarily the driving factors for teleworkers. Instead, most people do it because of convenience.

OOE notes that one needs three things to be able to be an effective teleworker—the right work habits, a good home environment, and the right job type.

They also find that there are many people who don't want to telework, for a variety of reasons including: they gain weight if they stay at home, because they are too close to the fridge; they can't say no to neighbors who come over to visit all the time, and their work is constantly being interrupted; some people want to keep home and work very separate.

Oregon has the one of the highest percentage of teleworkers—estimated at 7-8%

Next, Naoko asked a few questions about the Business Energy Tax Credit.

6. According to the list we have, very few organizations are using BETC-in fact none in the Metro area. Why do you think it has not been used extensively?

OOE has marketed the telework tax credit with a different approach than they use for other types of BETCs. With telework you need to market telework first, let the organization see if it is the right fit, and then tell them about BETC. They don't want failures for the telework program because it makes it harder to sell. Something like 90% of households have home computers which are often better than those in the workplace, so in many cases there may be no incentive to buy equipment for telework.

Small organizations probably use BETC more. For example, the Former Mayor of Bend has a bookkeeper working at home for his small business. For really big projects (such as Intel), they have lots of equipment, and they already have remote access. Now we will probably go into promoting the BETC on a larger scale since many organizations have had a chance to try out telework. When the program started, the BETC had to be taken over 5 years, so for many organizations it wasn't worth it to fill out the forms when they penciled out the costs Now if a project is under $20,000 it can be done in one year.

OOE has to be selective in who they market the BETC program to since the potential for abuse of the tax credit is quite high, and OOE works on the honor system as far as monitoring BETC. Someone could go out and buy a lot of computers, not allow telework, and then use BETC. OOE follows up with employers who have received the tax credit, but monitoring is tough, as is measuring savings of energy. OOE does track energy saving to some extent by requiring that the teleworker using the equipment must telework at least 45 days a year, and with that estimates energy savings by requiring estimated reduced vehicle miles.

The main point is to make sure telework is right for the organization and then say "by the way here is an incentive."

TriMet's opinion of BETC is that it is pretty straight forward but most people think filling out the forms are a challenge. The people who TriMet talks to aren't accountants or managers; they are human resources people, not tax or payroll people. Many do not have the confidence or sophistication to apply for the tax credit—this is one drawback of the marketing strategy. They need to get those employees to go spread the word to their employers about the BETC. TriMet keeps the BETC forms and brochures there and hands them out often to employers—including some colleges. These are also included in the packets they distribute. TriMet doesn't see the follow through process so they don't know how effective their marketing of BETC is. Their perception, however, is that small organizations don't think it is worth it to apply, and that tax preparers and accountants are more aware of the BETC.

OOE has a committee working on improving the BETC program. Nonprofits and other programs (that don't pay taxes) can use the credit with a pass through program. Currently there are three of these partnerships in place, but partners are difficult to find. Changes to BETC also depend on the legislative process. OOE needs to learn what financial burdens there are to the state and then look to improve BETC if possible. OOE also partners with other programs to get new innovative ideas that could be applied to OOE's program.

Tri-Met thinks BETC is pretty good. They mentioned three examples: NW Natural, Swan Island, and Lloyd District. They have heard OOE does a good job of it.

OOE reported that there are many BETC applicants right now, $2 million worth, within City of Portland. The partnership program is basically the idea that "you scratch my back, I'll scratch yours." They have met with lots of organizations to try to set up pass through partnerships. Nike wanted to do a $1 million match, but would only apply it toward k-12 schools. Nike will talk about what they did at a conference soon. At that conference OOE hopes to get a pool of pass through partners. Other "pools" that could be used include as transportation pools. Nike is looking at more traditional methods of conservation such as transportation for schools and water issues.

OOE has hired two really great professionals who have been involved with the education components of the program. They focus on newspaper inserts, newsletters, and other methods. They are looking for creative new ways to promote BETC. They don't know who goes to the website but there are tons of hits and BETC info is on it.

Metro suggested that perhaps the number of organizations set up with telework programs could be increased- by focusing on areas of transportation nodes.

Finally, Allison asked a few questions about program effectiveness.

7. Do you think telework is effective in contributing to the overall goals?

TriMet's perception is that telework does contribute to environmental and transportation goals. Although telework is a low percentage of the trips reported in the ECO surveys, it has doubled and is definitely growing, and in doing such, it is a piece of the puzzle. Oregon is seen by others as a progressive state, and with the number and size of organizations growing, there is the potential for telework to grow as well.

OOE reiterated that the 45 days of telework is just the definition of telework for those in the BETC program. They stressed that when they meet with organizations such as Providence, they don't ever want to put quotas on what they HAVE to do, but rather they want the program to fit the organization. OOE looks at the organization's situation and then helps them carefully tailor a telework program for the individual employer. Telework for some may only be 1 day each month. The Legislature wanted to set specific (percentage) requirements for employers, but OOE stressed the need for flexibility because of the differences among organizations.

Bob then asked the follow-up question:

8. At this point where do you think we are in the cycle of growth of teleworkers?

Metro feels that there is still an untapped potential.

OOE's goal was to make telework a household word, and they think many people now know about telework. OOE wants people to know how telework could benefit them, and where to go to get help and information. They've touched every employer under the ECO at least 2-3 times which is part of why they are phasing out of such an active role—that is, they've gone for the big guys. However, there are still opportunities for small organizations, and OOE will continue to provide the website and kits for that purpose. Small organizations don't require as much work. OOE has "planted seeds," and touched many employers.

OOE explained that telework has been beneficial for employers. It used to be that they really wanted telework to retain and recruit quality employees. Now with the economy like it is, employers look for ways of economizing; They are trying to save money in other areas such as office space. OOE finds that the new generation of people who grew up with computer technology that are moving into management and that this is bringing about changes. Management issues, like not being able to see the workers at their tasks, are going to go as new managers come in and adapt to the idea of telework. OOE has saturated the market by making most people aware of telework.

Metro is "center" based, emphasizing the development of geographic areas. There are emerging centers or nodes, such as Clackamas town center and others, and most of Metro's transportation focus is on mixed-use centers with, people living working and shopping in these centers. Can telework be a part of that? Short term planning (20 years), and transportation plans will be including those options. E-commerce and telework will play a role in the future of transportation planning. It is difficult to determine what impact e-commerce will have on transportation—instead of commuters there will be delivery trucks everywhere delivering things people have bought over the internet. They haven't even scratched the surface of transportation problems. Metro is thinking about all trips rather than just work trips when they consider congestion.

9. How effective is the outreach in promoting telework?

OOE noted that they had bus "tails" on TriMet busses for several months. They've looked at lots of marketing strategies, including television commercials. If there would be one thing that OOE could have done more of, it would be more billboards, busses, and more exposure. They would have done more with the marketing. OOE has done a large numbers of presentations, and worked in cooperation with DEQ and the Clean Air Action Day mailings. One on one conversations are still the most persuasive way to convince people of telework's benefits. Early on, Kathy wasn't in the office a lot; she was always out giving presentations and working with lots of organizations. OOE finds that the higher you go (i.e., to the CEO) in the organization the better. They have worked with really enthusiastic employees such as an auditor from CFN, she was not at the top, but she was definitely a cheerleader; they call them "telework angels." Telework Angels really help out. The most powerful approach is the top down and bottom up at the same time; if you don't have support from the top telework won't go anywhere.

OOE stated that training managers early in the process is important because they want control. After the managers are "on board," work down the hierarchy with the employees. Sometimes OOE get calls from employees really who want telework in their organization, and then OOE goes to management, but if management says no then it doesn't work out. Organizational size makes also a difference in OOE's approach. For big companies they definitely go to the top management first. A lot of one on one, and training is necessary. OOE has "fill in the blank" policies, and then they help employers get the tools they need. Smaller companies can more easily help themselves but OOE doesn't know a lot about which small companies are implementing telework because they can't keep track of who has used there website.

TriMet has had good experience with the telework packets! Anything that gives flexibility; it is a big strength of the program because it moves people's travel times out of congestion hours.

OOE mentioned the US West/Qwest survey found that 52% of employers telecommute in Oregon which is the highest of the 14 states surveyed. OOE will get a copy of this survey to CPW.

OOE also discussed that in order to reduce vehicle miles traveled, it takes every "piece" (commuting option) to have an impact. The more opportunities you have, the better. You need to look at all of the services needed, who is delivering the services, and then go there. OOE sends people to other agencies and they encourage partnerships. OOE feels that outreach has been successful, but if they'd had more money, they would have done more marketing.

TriMet mentioned that their surveys (ECO surveys?) tell us a lot more people are aware of telework, and that they may combine this with other options—i.e. frequent bus service. This combined approach allows people flexibility so that people can hop on bus if they need to go anywhere on their telework day. It all adds more flexibility and awareness of the programs.

10. What are some major strengths of telework?

Major strengths mentioned included: reduced travel, air quality, other benefits for the employee, experience in marketing, a prepared strategy, program flexibility of the program and for employees.

11. What are some of the weaknesses of telework?

Weakness of telework include: lack of resources (money); some employees don't want to stay at home; OOE can't stay in it forever — they've helped move the market and now need to "move out;" there isn't just one organization to continue at the level of OOE's involvement; some people might not consider/care for it as an option (OOE stated that this may be good that there are some who just don't like it – those are good for teams, and other office setting functions, it could create problems if they were made to telework); many teleworkers are already taking public transit; work hours aren't just 9-5 anymore, but major congestion is limited to certain hours a day.

This ended our session. The meeting ended at 3:50.

DEQ Interview

This key person is to replace the absence of DEQ representation at the Agency Focus Group. Questions were formatted in the same way as the agency focus group questions to receive the closest information to what it would have been if in attendance at the focus group. This is a paraphrased summary of the phone interview conducted with Susan Drake, Program Coordinator of the ECO Program, on February 26, 2003.

1. What is the major role DEQ plays in terms of implementation?

Susan Drake is the program coordinator of the Employee Commute Options program. DEQ focuses on the big picture—to be a an active leader in leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water, and everything they do fits into that mission. Telework is one of the strategies DEQ uses for the ECO program. Within this, they don't tell employers what they have to do- they let the employers decide on strategies with the goal being to reduce auto trip rates by 10%. What DEQ does is track the employers. DEQ surveys them annually or biannually about their auto trip rates, depending on the employers' phase in the process. A baseline survey is done for each employer at the beginning which creates the baseline auto trip rate. This survey is used to compare the annual or biannual survey rates they conduct in the future to distinguish the 10% reduction.

DEQ did have an information clearing house at the beginning of the program that would actively "post" employers getting contracts and plans in place. Now, since the program is established, being in place since 1996, their main job is to maintain the ECO Rules employers.

The main ECO strategies are within the transit program: give subsidy for employers, make passes available in house at employer site, encourage use of on-line trip planner, plan ways for employees to get from work to home, match carpooling- either in-house, or through Carpool Match Northwest, suggest bike and walk options, and promote telework or a compressed work week

2. Has the coordination efforts of the program changed over time? How could it be improved?

When the ECO Rules program was first set in place, there were workshops where OOE staff would present telework- at workshops and events. This happened several times. Now OOE gets all the data from the annual surveys and can look to see the decrease in commute trips. DEQ sends the surveys to Barb and she can pull the information she needs from there. The survey does ask about telework, so information would be able to be gathered to analyze coordination efforts. Now technical assistance for ECO program is not used as much as coordination of the survey results, and offering telework as a strategy. Realistically, the most important part of the coordination is in the collection of data from ECO Rules surveys and sharing that data with OOE.

3. What are some general reactions you get when you talk to employers about telework?

This depends on the industry sector. For example, people in manufacturing, airports, nursing homes, schools, say "No, we can't do

that because of the type of work we do." Organizations like insurance, banks, office work settings say, "We already have a few people doing that" and/or "The management won't allow it." There's not much of "Oh, that's an interesting idea" from general reactions she hears. She sees the biggest barrier as the management "won't allow it." At that point, she doesn't push it, since she's working with so many employers and she doesn't want to make the relationship uncomfortable. At that time, she usually refers them to OOE's materials, gives out the OOE phone number, and website information. She use to have pamphlets and materials physically available to hand out, but now she just gives them either the phone contact or the web page. The management comment is usually a polite way to say they don't want to deal with the telework option.

4. Are there certain types of organizations targeted in outreach?

Generally, DEQ works on the ECO Rules with the large employers because they benefit more from working with larger companies since they have a larger employee base—a bigger bang for their buck. It's many of the smaller organizations that are in noncompliance. These are organizations with 50 employees or less. Although this number of employees seems like a lot, really they are smaller organizations, for example a small retail shop with a few stores. ECO Rules compliance is more difficult since the smaller organizations may not have an HR representative or an Environmental Regulation supervisor. The focus is on compliance with the big employers. DEQ has to be more creative when approaching the small employers with compliance strategies.

What percent of employers are in compliance?

Within the ECO employers, about 80% are in compliance with the ECO Rules or in process of trying to be in compliance. This number is so strong because the program has been in place since 1996. For most of the larger employers, it's institutionalized. They're used to the commute benefits. Twenty-five percent offer transit subsidies as a formal policy, where as many have informal policies with TriMet to buy passes. For many employers that's they way they do business.

What type of outreach do you think is most successful?

One-on-one contact has produced the best results. She does mass mailings, but it has limited response rate to them, especially for the out of compliance organizations. The best strategy is the series of persistent phone calls and pulling them into the program. It's the most effective.

5. What's your relationship with BETC?

When writing the newsletter, she usually include an article about the BETC stating that new employers should be aware they could receive

BETC if they do this, that and the other. When talking to employers about ECO, she mentions it. Occasionally someone will ask her about it, but not often.

6. Do you think telework is effective in contributing to the overall goals?

It is. It's making a contribution. The whole ECO program consists of a number of small parts, but just because they're small, doesn't mean they're not significant. Even if the contribution is small, when added to the whole, it makes a difference. Anything over 1% would be significant. If they analyzed the results and found that telecommuting was lowering the number of trips/miles traveled by even a 1/2% it would be significant. It would be making a contribution.

7. At this point where do you think we are in the cycle? What level of efforts?

Right now, more work should be done on targeting the right organizations and the right jobs for telework. For example, when she first got this job she was excited about the option of telework, but it doesn't replace her being at the office. She has to have a lot of team contact. She tried it, but had a really difficult time keeping work and home separate. She thought it was great because she could put in a load of laundry, do some work, and then take another break to throw it in the dryer. That was a challenge for her. If she had a really unproductive day during her telework day, she would feel guilty about it. However if she was on site at her job and had a day where she got nothing done she would write it off.

She thinks OOE could be promoting telework ad hoc – on an as needed basis. For example some days she needs to score proposals, read for hours, do data entry—these are all great tasks that could be done on an as needed basis—as a teleworker. They should be less ridged in promoting scheduled days/times for telework. She stated this because she thinks she's a good representative of the average person who could telework. She was also generalizing what she's heard over the years. Working at home leads to distractions by conflicting demands, where as at the office the only distraction is talking to colleagues and drinking coffee.

8. How effective is outreach to promote this?

She had one comment on BETC. She saw the forms and thought they were very easy and understandable to fill out. She doesn't understand why more people aren't using them. The website's effectiveness—she doesn't know. The most effective promotion is the one-on-one contact, or finding people who enjoy telework to be cheerleaders for the program.

Identify the right person to help promote the program at the worksite and use their testimonial as a way to market it.

9. What are the major strengths of telework?

The major strength is empowering and trusting the employee with the work. The employee can then take more ownership in their job which is very important. The lifestyle aspect since everyone spends a lot of time putting on costumes every day. More strengths are the increase in morale and employees being more productive. What really needs to happen is for people to have more time off. People produce less when working full time. Telework gives people the extra time they need to be refreshed, and willing to give more when they're at their job.

10. What doesn't it do?

It doesn't make an impact on office space, parking, or how to plan telework time out-of-office. Those aspects are not effective enough to make it a true benefit. What needs to be thought of when approaching the option of telework is whether it is additive, or collaborative. Thinking about telework this way came from a presentation that she just saw about Teamwork and Telework. Additive work would be if someone was in sales, where the salesperson goes out on his/her own and works to promote and sell the company's product, then coming together with the rest of the sales team. So, additive work is work that is done in little parts and then comes together as a whole—the sum of the parts is more than what the little parts are alone. Collaborative work is a process where people need to perhaps work on the fly to create work, bounce off ideas with each other. An example of this is a legal defense team collaborating to think through the best ideas for a court case. Identifying whether the work is additive (more of a telework type of job) versus collaborative (less likely to work for telework) is something that should be emphasized more.

Oregon Office of Energy's Telework Program Evaluation

Employer Survey Results

CPW surveyed employers to gather information from the employers' perspective on telework. This appendix presents the results of the employer survey. It begins with a discussion of the survey methods, then presents the survey results, and concludes with a copy of the survey instrument and a transcript of comments from the open-ended questions.

Survey Methodology

CPW conducted a mailed survey of employers in the Portland metro region. CPW used databases from the Oregon Office of Energy (OOE) and TriMet for sampling purposes. The OOE database included all employers that OOE had contact with on telework issues since 1994. This database included 619 names of Portland area employers. CPW sent surveys to all 619 organizations in the OOE database. The TriMet database contained contact information for 1570 transportation coordinators at organizations in Portland that TriMet surveys annually. A random sample of 684 names was drawn from this database. In total, CPW administered surveys to 1,303 employers in the Portland metropolitan region. Two hundred and six of these were returned as undeliverable, yielding an effective sample size of 1,097 organizations.

To increase survey response, CPW sent follow up postcards, and a 2nd mailing to all non-respondents. After several weeks, CPW had received fewer than 100 responses. Because the employer survey is an important part of the evaluation, CPW called 1,100 of the employers to increase the response rate. In total, CPW received 192 surveys for a 17.5% response rate. Seventy-one of the responses were from the OOE database, and 121 from the TriMet database.

Table B-1. Employer Survey Distribution and Response Rates

Source	Surveys Distributed	Surveys Returned	Percent of Respondents
OOE	619	71	37.0%
TriMet	684	121	63.0%
Total	1303 (-206 undeliverable)	192	100.0%

Source: Community Planning Workshop.

The employer survey was six pages long with 35 questions (see survey instrument later in this appendix). The survey instrument was reviewed by OOE, Metro, and TriMet staff prior to field testing and administration. As a final step before the survey was administered, CPW field tested the final draft survey instrument. The survey addressed four main areas: (1) general telework issues; (2) outreach assistance usage; (3) non-teleworker issues; and (4) organization characteristics. The survey addressed many aspects of what works for employers, what doesn't work well, and identified barriers to establishing telework programs

CPW used the Statistical Package for the Social Sciences (SPSS) software program to analyze the data using both frequency distributions and cross tabulations.

Findings

The findings that follow are organized into five sections:

- · Characteristics of responding organizations
- · General perceptions of telework
- · OOE's Telework Program
- · Telework in respondents' organizations
- · Organizations without telework

Each set of findings is based on one or more survey questions. The corresponding survey question numbers are provided so that readers can cross-reference the findings with the survey instrument located later in this appendix.

Characteristics of Respondents' Organizations (Q-33, Q-34)

Survey respondents were asked a few questions about the nature of their organizations and its employees. Figure B-1 shows the type of industry in which respondents work.

Figure B-1 shows that the majority of respondents' worked with organizations in manufacturing industries, government agencies, or an "other" specified industries.

Respondents were also asked about the number of employees at their organizations—both the total number of employees and the number of full-time equivalent employees. The mean responses were 361 employees with 223 full time equivalent positions. The median response was 89 employees with 70 full time equivalent positions.

CPW reviewed data on covered employment from the Oregon Labor Market Information System (OLMIS) to identify whether the survey responses were representative of all employers in the Portland

metropolitan region. The results show that the survey over-represents the government agency, manufacturing and business services sectors, while under-representing many other sectors. This is not particularly surprising—the survey sample was drawn from organizations that OOE and Tri-Met have contact with on telework and transit issues. The survey sample represents the types of organizations that were targeted by the two agencies.

Figure B-1. Comparison of OLMIS Industry Percentage to Survey Respondents Industry Percentage
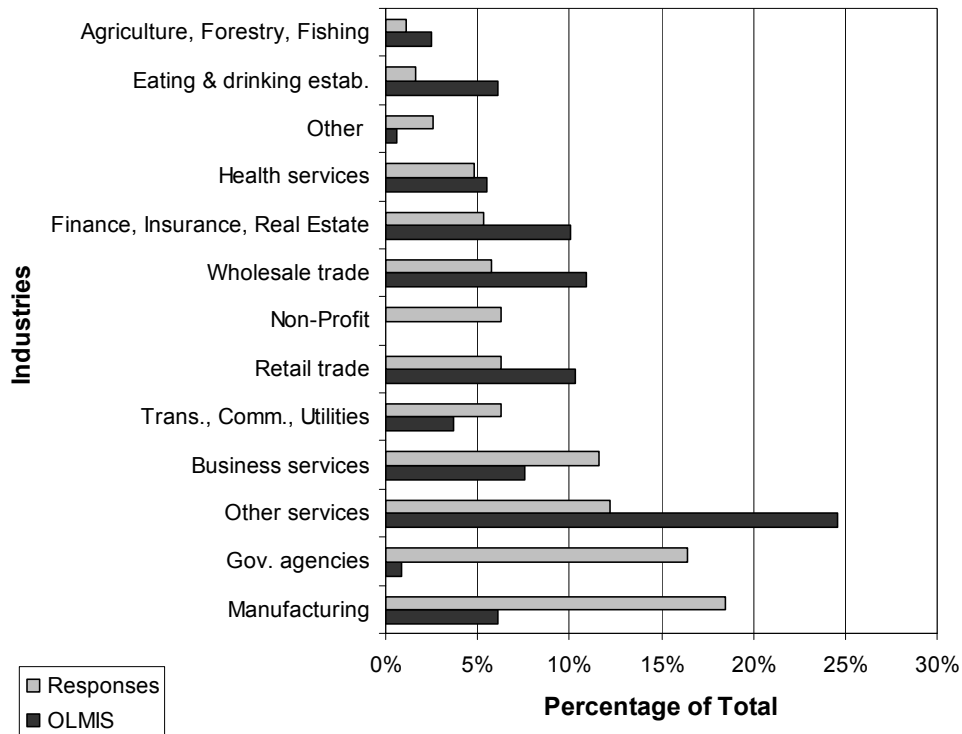
Source: Employer Telework Program Evaluation Survey and Oregon Labor Market Information System (OLMIS) (www.olmis.org)

Note: There was no comparable category to the non-profit option on the survey so there was no comparison possible for that group.

General Perceptions of Telework

Organizations with a Program (Q-1)

According to the survey results 37.4% of respondents (71 respondents) indicated that their organizations have a telework policy. Of the organizations with a telework policy, 40.3% indicated their policies are formal, and 59.7% have informal policies.

Attitude of Management (Q-2)

When asked about the attitude of management towards permitting telework in their organization, 31.5% of respondents say that management attitudes are neutral, while 34.3% feel management has a positive attitude, and 34.2% of respondents feel management has a negative attitude towards telework.

Types of Positions (Q-3)

The types of positions that respondents perceive as the most suitable for telework in their organization are shown in Figure B-2. The most common are professional (35.4 %), and sales (26.6 %). It should be noted that 22.4% of respondents feel there are no suitable positions for telework in their organization.

Figure B-2. Positions Most Suitable for Telework
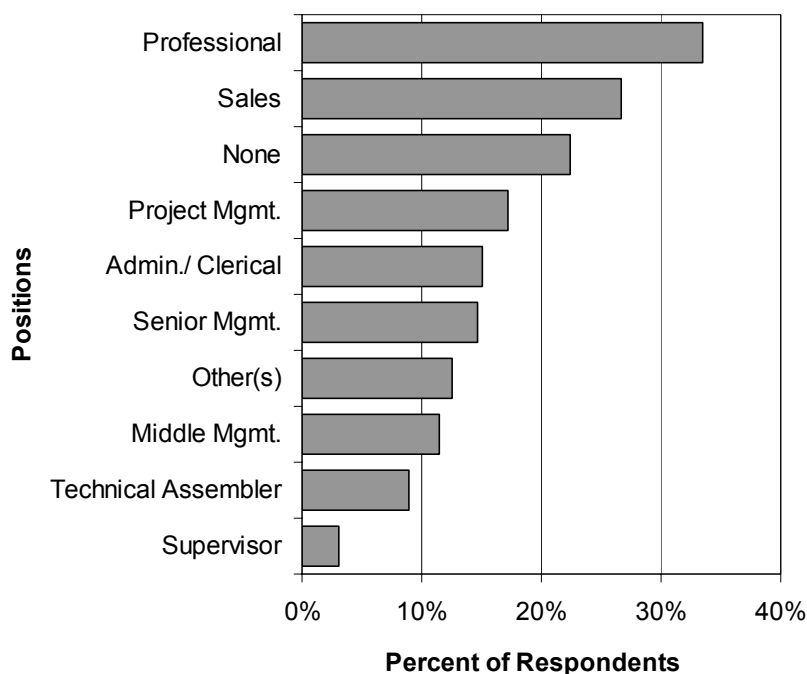
Source: Employer Telework Program Evaluation Survey

Employee Characteristics (Q-4)

Respondents were also asked to identify what characteristics make employees better suited to telework. Table B-2 shows that the three most commonly identified characteristics were: the ability to work independently (70.3%), self-motivation (69.3%), and position (56.3%).

**Table B-2. Employee Characteristics
Best Suited for Telework**

Employee Characteristics	Percent
Ability to work independently	70.3%
Self motivation	69.3%
Position	56.3%
Communication skills	32.3%
Length of time in position	25.5%
None	11.5%
Educational level	8.9%
Other	7.3%

Source: Employer Telework Program Evaluation Survey

Barriers to Telework (Q-5)

Ninety percent of survey respondents indicated that there are barriers that make telework difficult. Employers identified 31 different barriers to telework. Many of these barriers are related, and a few stood out as being some of the major barriers to telework. The top five are as follows: employees need to be on site, manufacturing facility issues, security and restricted data access, communication skills, and customer service issues. Table B-3 shows the top ten barriers along with the percentage of respondents for each.

Table B-3. Barriers to Telework

Barriers	Percent
Employees need to be on-site	18.8%
Security/Restricted data access	8.9%
Communications/ comm. skills	8.5%
Manufacturing facility	7.5%
Customer Service	6.6%
Need for high tech equipment	4.7%
Financial Issues/Cost	4.2%
Service Industry	3.8%
Job Components	3.8%
Top Management	3.3%

Source: Employer Telework Program Evaluation Survey

Telework Information (Q-6)

About two-thirds (64.2%) of respondents stated that they know where to find information about telework. The other 36% did not know where to obtain information. Figure B-3 shows the distribution of where employers have found information.

Figure B-3. Sources of information on telework
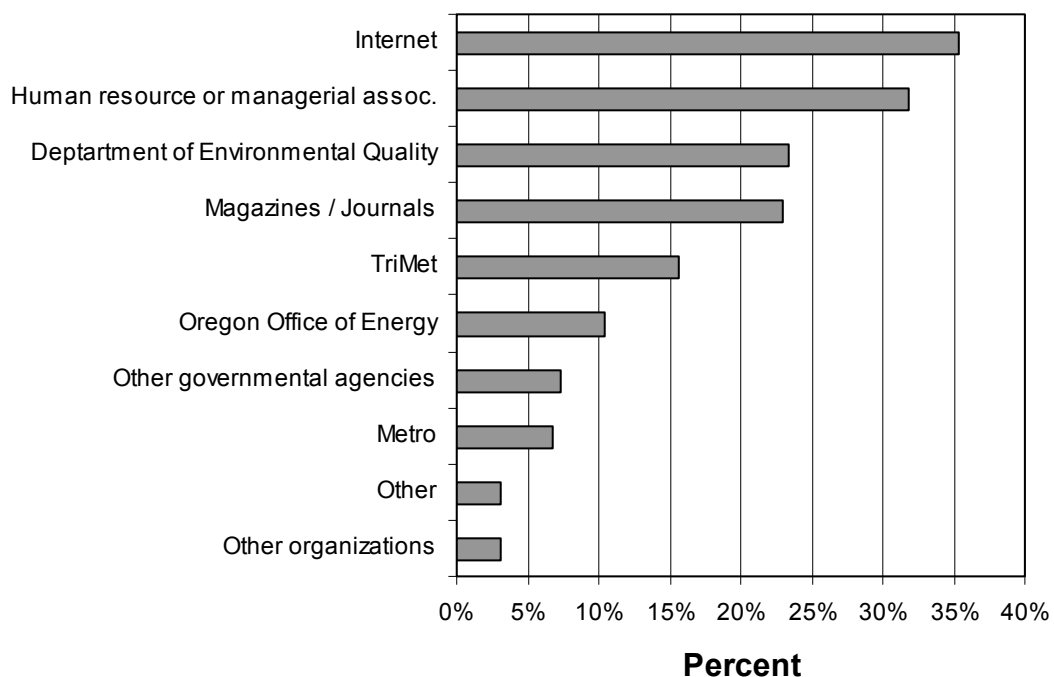
Source: Employer Telework Program Evaluation Survey

OOE's Telework Program

Contact from OOE (Q-7, Q-8)

About one-fifth (19.3%) of survey respondents stated they had direct (11.5 %) or indirect (12.0 %) contact with OOE's Telework Program. Sixty-three percent indicated they had no contact with OOE. This is probably due in part to the fact that the majority of returned surveys were from the TriMet database, and not the OOE database. An additional 17.7% were unsure if they had contact with OOE. Respondents without any contact with OOE were asked to skip to the next section of questions.

Only twenty-five respondents answered the question about the last date of contact with OOE's Telework Program. For those that responded 44.0% stated that 2002 was the last date of contact, 16.0% of respondents stated that 1999 was the last date of contact, and 12.0% of respondents stated that 2003 was their last date of contact, and another 12% stated that 1998 was the last date of contact.

Assistance from OOE (Q-9 through Q-14)

Table B-4 displays the types of assistance (both direct and indirect) provided to respondents' organizations by OOE. The most common type of assistance received by respondents was educational and training

materials followed by presentations and information from OOE's web site.

Table B-4. Types of Assistance Provided by OOE to Respondents' Organizations

Type of Assistance	Percent
Educational and training materials	33.8%
Presentations about telework	25.3%
Information from OOE's telework web site	22.5%
Not sure	19.7%
Training for managers	14.1%
Training for teleworkers	7.0%
None	7.0%
One-on-one assistance	6.0%
Assistance using the BETC credit	4.2%
Training for coworkers	1.4%

Source: Employer Telework Program Evaluation Survey

Respondents were asked whether they began their telework program as a result of OOE's assistance, to which 34% replied "yes." Of these respondents, the most helpful type of assistance cited was educational and training materials about telework. For the respondents who said that OOE's assistance was unrelated to the start of their program, 44.4% stated that a program was already in place, and 11.1% stated that telework is just too difficult for their type of organization.

According to the survey, 33.3% of respondents who had contact with OOE indicated that they had used OOE's training materials to educate employees about telework.

In exploring the issue of OOE's telework outreach, the survey asked respondents to rate how helpful they found OOE's assistance. Of those who responded, 35.5% said it was very helpful, 24.4% said OOE's assistance was somewhat helpful, 8.9% said it was not helpful at all, while 31.1% were not sure.

Respondents then rated how helpful they found OOE's staff in addressing the specific needs of their organization, where 34.8% stated that staff was very helpful, 8.7% found them somewhat helpful, 2.2% said they were not helpful, 21.7% were not sure, and 32.6% did not have any contact with staff.

Over 90% (92.3%) of respondents indicated that there is nothing more OOE staff could do that would be helpful in meeting the needs of their organizations.

Ideas for Improving the Telework Program (Q-15)

The survey asked respondents whether they thought that there were ways that OOE could improve its outreach program to better meet the needs of their organization. Forty-two percent stated (42.3%) that they had no ideas for improvement. Responses on areas that could be

improved were: more assistance with the Oregon Business Energy Tax Credit, additional training opportunities for management and employees, and others which included incentives for government agencies, and working through human resources departments. .

Telework in Respondents' Organizations
How Telework Works (Q-16 through Q-19, Q-21)

Half of the survey respondents indicated that their organization currently permits employees to telework. Those without teleworkers were asked to skip to the next section of questions. A cross tabulation was created to show the breakdown between those who permit telework in their organization and the industry of the organization. Table B-5 shows this breakdown. The highest percentages of those permitting telework include: business services, other services, wholesale trade, government agencies, and construction. The highest percentage of those not permitting telework include: eating and drinking establishments, agriculture, forestry, fishing, health services, retail trade, and other.

Table B-5. Cross tabulation of Organizations Permitting Telework by Industry

Industry	Organizations permitting telework		
	Yes	No	Total
Business services	72.7%	27.3%	100.0%
Other services	69.6%	30.4%	100.0%
Wholesale trade	63.6%	36.4%	100.0%
Government agencies	56.7%	43.4%	100.1%
Construction	50.0%	50.0%	100.0%
Manufacturing	48.6%	51.4%	100.0%
Transportation, Communication, Utilities	41.7%	58.3%	100.0%
Non-profit organizations	41.7%	58.3%	100.0%
Finance, Insurance, Real Estate	40.0%	60.0%	100.0%
Other	40.0%	60.0%	100.0%
Retail trade	25.0%	75.0%	100.0%
Health services	22.2%	77.8%	100.0%
Agriculture, Forestry, Fishing	0.0%	100.0%	100.0%
Eating and drinking establishment	0.0%	100.0%	100.0%

Source: Employer Telework Program Evaluation Survey

Of those who do permit telework, only 22.8% said that they allow telework as a way to satisfy the ECO Rules requirements. This may in part be explained by the fact that 18.5% of respondents who permit telework have fewer than 51 employees, and thus are not subject to the ECO Rules.

Respondents were then asked to list both the number of employees in their organization that are offered the option of telework and the number of employees who telework one or more days a week. The mean numbers were, 16.8 employees are offered telework as an option and 9.4 telework one or more days a week. The medians, by contrast, were 4.0

employees are offered telework and 2.0 telework one or more days a week.

Respondents with teleworkers indicated that the majority of employees would never be offered the option of telework (mean=65.0%, median=80.0%).

Positions of Teleworkers (Q-20)

Respondents were asked what types of positions teleworkers in their organizations currently hold, as shown in Figure B-4. This information is presented together with information about the earlier question about which positions respondents believed were best suited for telework.

Figure B-4. Positions Suitable for Telework and Positions of Teleworkers in Respondents' Organizations
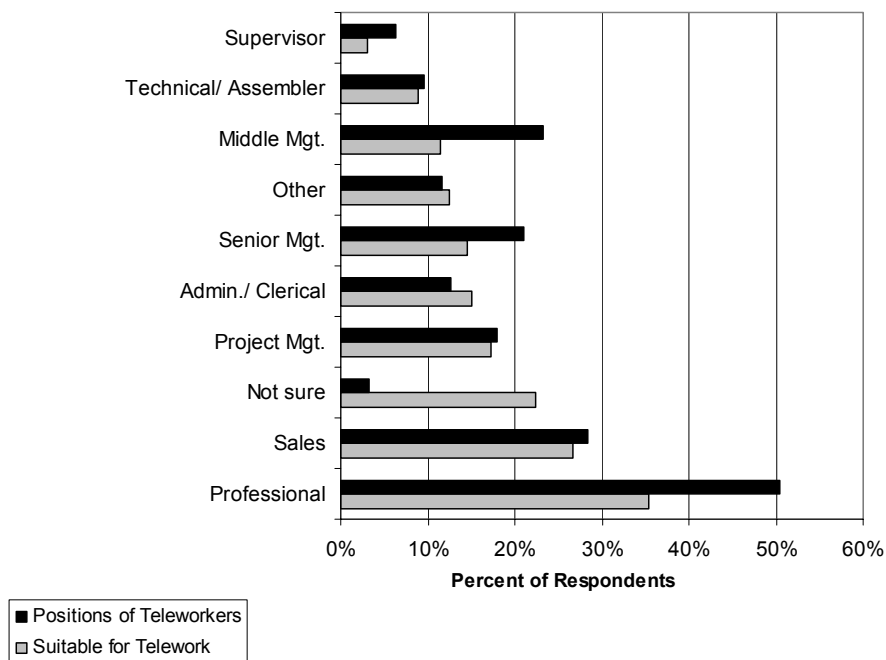
Source: Employer Telework Program Evaluation Survey

The comparison of the two questions in Figure B-4 shows that respondents' identification of what positions are most suitable for telework are similar to the positions that teleworkers actually hold. Professional, sales, and middle and senior management are the most common types of positions.

Commute Trips Saved (Q-22)

Over 60% (62.6%) of respondents indicated that they feel telework reduces the number of employee commute trips. Some (16.5%) indicated that telework does not reduce the number of commute trips. Twenty percent indicated that they were not sure. Those who felt telework reduced commute trips were asked to estimate the number of trips saved per year. The mean estimate of the number of commute trips

saved by telework was 377 trips per year and the median estimate was 153 trips per year saved. A total estimate of commute trips saved for responding organizations is in the range of 17,000-27,000 per year.

Benefits and Costs of Telework (Q-23)

Respondents were asked to rate statements regarding the benefits and costs of telework on a scale from Strongly Agree to Strongly Disagree. Tables B-6 and B-7 show the results.

Table B-6. Respondent Perceptions of the Benefits of Telework

Benefit Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Sure
Telework improves employee morale.	25.5%	44.7%	17.0%	5.3%	0.0%	7.4%
Telework increases employees' productivity.	7.5%	34.4%	34.4%	9.7%	1.1%	12.9%
Teleworkers exhibit greater job satisfaction.	17.2%	41.9%	28.0%	3.2%	0.0%	9.7%
Telework reduces overhead expenses.	1.1%	19.4%	31.2%	36.6%	6.5%	5.4%
Offering telework helps attract high quality employees.	11.8%	31.2%	37.6%	5.4%	1.1%	12.9%
Offering telework assists in employee retention.	12.9%	48.4%	24.7%	4.3%	0.0%	9.7%
Telework helps meet the ECO Rules requirements.	8.6%	29.0%	22.6%	4.3%	1.1%	34.4%
Telework improves work quality.	6.5%	20.4%	54.8%	7.5%	0.0%	10.8%
Telework improves flexibility in the workplace.	24.7%	58.1%	12.9%	2.2%	0.0%	2.2%

Source: Employer Telework Program Evaluation Survey

Survey respondents perceive the biggest benefits of telework to be improved work flexibility, increased employee morale, assistance in employee retention, and greater job satisfaction for employees. These survey results correspond with the benefits outlined in the literature review presented in Chapter 2. Many respondents had neutral feelings about most statements in the range of 13% to 55%.

While most employers feel telework improves employee morale, that teleworkers exhibit greater job satisfaction, that telework helps recruit and maintain high quality employees, and that telework improves workplace flexibility, opinions were more mixed on other statements. In particular, 37% do not believe telework reduces overhead expenses while 19% do believe this, and 31% are neutral. Also of note, almost 55% of respondents hold neutral opinions as to whether or not telework improves work quality.

Table B-7. Respondent Perceptions of the Costs of Telework

| Cost Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Sure
Telework increases equipment and/or service costs.	12.0%	19.6%	25.0%	30.4%	4.3%	8.7%
Decreased face-to-face contact with teleworkers makes management more difficult.	14.0%	34.4%	18.3%	28.0%	3.2%	2.2%
Technical difficulties or disruptions make telework difficult.	2.2%	29.3%	33.7%	22.8%	2.2%	9.8%
Telework provides less direct control over employees.	5.4%	44.6%	27.2%	18.5%	2.2%	2.2%
Scheduling meetings with teleworkers is more difficult than with non-teleworkers.	8.6%	39.8%	18.3%	28.0%	1.1%	4.3%
Communication between teleworkers and co-workers is difficult.	1.1%	16.1%	34.4%	38.7%	4.3%	5.4%
Communication between managers and teleworkers is difficult.	2.2%	12.9%	24.7%	46.2%	6.5%	7.5%

Source: Employer Telework Program Evaluation Survey

Table B-7 shows the perceived costs of telework as reported by survey respondents. The most frequently cited costs of telework include: communication difficulties with managers of teleworkers, problems in communication with co-workers, and increases in equipment costs. Again, these results correspond with the costs outlined in the literature presented in Chapter 2. Many people (13% to 34%) felt neutral about the cost statements, but these statements point out several areas of disagreement among managers. While some (20%) agreed that telework increases equipment/service costs, more (30%) disagreed. Many (34%) people agreed that decreased face-to-face contact with teleworkers makes management more difficult, while 28% disagreed. Most people disagreed (38%) that communication between teleworkers and co-workers is difficult, 34% were neutral, and some (16%) agreed. More (46%) people disagreed about communication between managers and teleworkers being difficult than those that agreed (13%).

Communication and Management Issues Related to Telework (Q-24, Q-25)

Figure B-5 shows how teleworkers communicate with other employees on a day-to day basis. Respondents said that calling into the office, the office calling the teleworkers, voicemail, and email were the most frequent methods of communication with teleworkers.

Figure B-5. Methods of Communication for Teleworkers
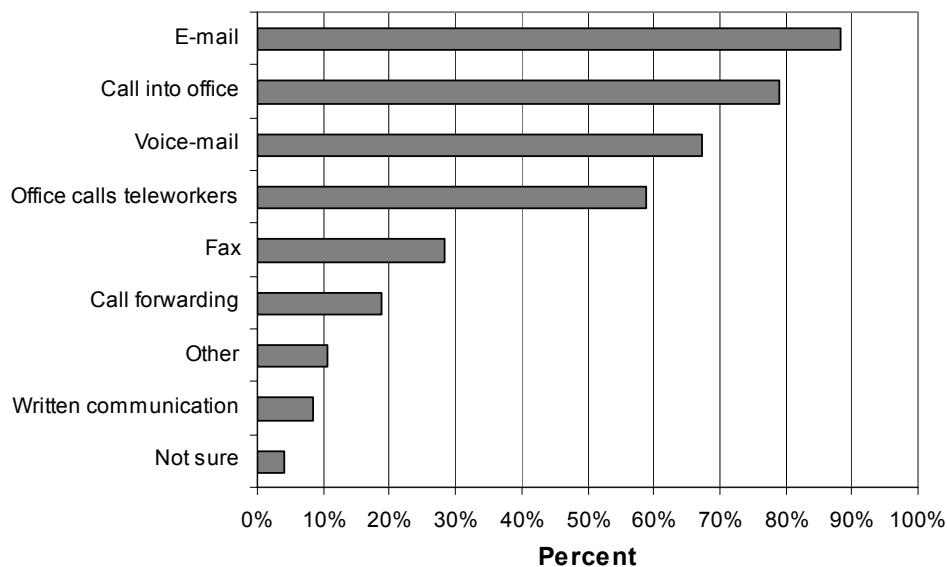
Source: Employer Telework Program Evaluation Survey

Ninety five percent of respondents indicated that telework has caused no change in management style in their organization.

Equipment for Teleworkers and the Business Tax Credit (Q-26 through Q-28)

While more than half (57.8%) of respondents indicated that they provide equipment for teleworkers, none of the respondents' organizations had applied for or received the Oregon Business Energy Tax Credit (BETC) for telework equipment. Reasons identified for not taking advantage of the tax credit were that paperwork was too complicated (1.1%), incentive is not great enough (9.5%), and the biggest reason identified was a lack of knowledge about BETC (38.9%). Not surprisingly then, only 2.2% of respondents listed BETC as a consideration when they established their telework program.

Organizations without Telework

Reasons Telework is Not Permitted (Q-31, Q-32)

Respondents indicated that their organizations do not currently permit employees to telework were asked to identify reasons why their organization currently does not allow telework, as shown in Figure B-6.

**Figure B-6. Reasons Telework is not Offered in Respondents'
Organizations**
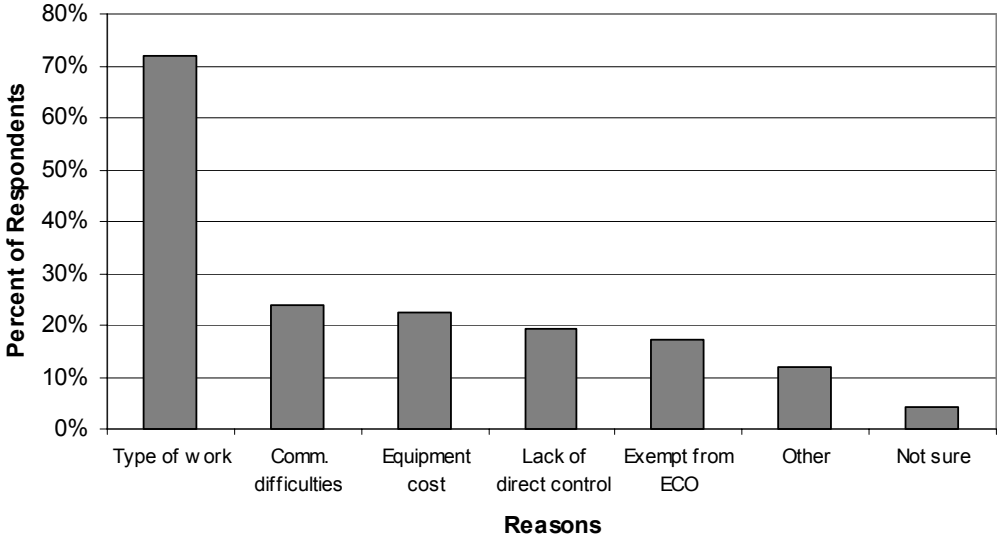
Source: Employer Telework Program Evaluation Survey

The most common reason for not permitting telework was the type of work the organization does. About one-fifth of respondents also indicated that communication difficulties, equipment costs, lack of direct control over employees, and exemption from the ECO Rules were reasons for not allowing employees to telework.

Over half (57.3%) of respondents indicated that they would consider allowing employees to telework in the future. Of these respondents that indicated they were willing to consider telework in the future, 22.2% said there would need to be a change in perspective in their organization, 18.5% said they would allow telework if the right job presented itself, and 14.8% indicated if there was an improvement in organizations' equipment and computer programs. The remaining 42.7% of respondents who stated they would not be willing to consider telework in the future listed reasons that included: telework is not appropriate for the type of organization, other employees have to pick up the slack, and organizational attitudes or culture.

Survey Instrument

The employer survey instrument with frequencies appears on the following pages.

Telework Program Evaluation Survey

Background: The Oregon Office of Energy (OOE) is evaluating its Telework Program. OOE has contracted with Community Planning Workshop at the University of Oregon to conduct the evaluation. Results of this survey will be used to assess the effectiveness of OOE's services and resources and make recommendations for improving telework efforts.

This survey is intended to reflect the opinions of employers and managers who have received materials, training, presentations, or consultations regarding telework either directly or indirectly from OOE. You should complete the survey based on your individual knowledge, opinions and experiences with telework. Please read each question carefully and answer to the best of your ability. Please take a few minutes to complete the survey and return it in the enclosed postage-paid envelope no later than **March 24, 2003**. Your responses will be kept confidential.

If you have questions regarding the survey, please feel free to contact Jennifer Curkendall at the Community Planning Workshop, (541) 346-3651. Your participation is voluntary and your returned survey indicates your willingness to take part in the study. If you have questions regarding your rights as a research participant, please contact the Office of Human Subjects Compliance, 5219 University of Oregon, Eugene, OR 97403, or call (541) 346-2510.

First, we would like to ask some questions regarding telework in general.

Telework, also called telecommuting, is defined as employees working at home or at a satellite office or telework center near home one or more days per week instead of commuting to the main office.

Q-1.   Does your organization have a telework policy? (n=192) missing = 10

 <u>37.4%</u> Yes → Is this policy: <u>40.3%</u> Formal (written policy with teleworker agreement)
 <u>59.7%</u> Informal (no written policy or teleworker agreement)
 <u>61.0%</u> No
 <u>1.6%</u>   Formal policy under development

Q-2.   In general, what is the attitude of the management in your organization towards permitting employees to telework? (n=192) missing = 11

 <u>10.5%</u> Very positive   <u>25.4%</u> Somewhat negative
 <u>23.8%</u> Somewhat positive   <u>8.8%</u>   Very negative
 <u>31.5%</u> Neutral

Q-3.   What types of positions in your organization are most suitable for telework? Check all that apply. (n=192)

 <u>15.1%</u> Administrative/Clerical   <u>3.1%</u>   Supervisor
 <u>35.4%</u> Professional   <u>11.5%</u> Middle management
 <u>8.9%</u>   Technical/Assembler   <u>14.6%</u> Senior management
 <u>26.6%</u> Sales   <u>12.5%</u> Other(s) <u>See Appendix B</u>
 <u>17.2%</u> Project management   <u>22.4%</u> None

Q-4.   Are there any characteristics that make employees better suited for telework? Check all that apply. (n=192)

 <u>56.3%</u> Position   <u>69.3%</u> Self-motivation
 <u>25.5%</u> Length of time in position   <u>70.3%</u> Ability to work independently
 <u>8.9%</u>   Educational level   <u>7.3%</u> Other(s) <u>See Appendix B</u>
 <u>32.3%</u> Communication skills   <u>11.5%</u> None

Q-5.   Are there barriers that make telework difficult in your type of organization? (n=192) missing =14)

      89.9% Yes → What are they? <u>See Appendix B</u>
      <u>10.1%</u> No

Q-6.   Do you know where you can obtain information on telework programs? (n=192) missing = 33

      <u>64.2%</u> Yes → Where have you found information? Check all that apply.

<u>35.4%</u> Internet	<u>23.4%</u> Oregon Department of
<u>23.0%</u> Magazines/Journals	Environmental Quality (DEQ)
<u>31.8%</u> Human resource or	<u>15.6%</u> TriMet
managerial association	<u>7.3%</u> Other governmental agencies
<u>6.8%</u> Metro	<u>3.1%</u> Other organizations
<u>10.4%</u> OOE	<u>3.1%</u> Other <u>See Appendix B</u>

    <u>35.8%</u> No

Next, we would like to ask you some questions about the Oregon Office of Energy's (OOE) Telework Program.

Q-7.   Has your organization had any form of contact with OOE's Telework Program? Check all that apply. (n=192)

      <u>11.5%</u> Yes, direct contact (phone calls, face-to-face contact, e-mail)
      <u>12.0%</u> Yes, indirect contact (visited web site, used training or educational materials, received OOE materials from another source)
      <u>63.0%</u> No contact → **Please skip to Q-16**
      <u>17.7%</u> Not sure

Q-8.   When did your organization last have contact with OOE's Telework Program? (n=71) missing = 46

    Please indicate the month and year of your most recent contact with OOE staff regarding telework.   <u>See Appendix B</u> month/year

Q-9.   What type of assistance regarding telework has been directly or indirectly provided to your company by the OOE? Check all that apply. (n=71)

      <u>25.3%</u> A. Presentations about telework
      <u>22.5%</u> B. Information from OOE's telework web site
      <u>5.6%</u> C. One-on-one assistance in establishing a telework program
      <u>4.2%</u> D. Assistance using the Oregon Business Energy Tax Credit for telework equipment
      <u>14.1%</u> E. Training for managers
      <u>7.0%</u> F. Training for teleworkers
      <u>1.4%</u> G. Training for coworkers of teleworkers
      <u>33.8%</u> H. Educational and training materials about telework
      <u>7.0%</u> I.   None
      <u>19.7%</u> J. Not sure

Q-10. Did you start a telework program as a result of OOE's assistance? (n=71) missing = 24

      <u>34.0%</u> Yes → From the list in Q-9, which types of assistance were most helpful? _____
          <u>See Appendix B</u>
      <u>51.1%</u> No → Why not? <u>See Appendix B</u>
      <u>14.9%</u> Not sure

Q-11. Have you used any of OOE's telework materials to educate your employees about telework? (n = 71) missing = 20

    33.3% Yes
    52.9% No
    13.7% Not sure

Q-12. In general, how helpful was OOE's assistance? (n=71) missing = 26

    35.6% Very helpful
    24.4% Somewhat helpful
    8.9% Not helpful
    31.1% Not sure

Q-13. In general, how helpful was the OOE staff in addressing the specific needs of your organization? (n=71) missing = 25

    34.8% Very helpful
    8.7% Somewhat helpful
    2.2% Not helpful
    21.7% Not sure
    32.6% Did not have contact with staff

Q-14. Are there other things that the OOE staff could do that would be helpful in meeting the telework needs of your organization? (n=71) missing =32

    7.7% Yes → Please specify:_____No comments_____
    92.3% No

Q-15. How could OOE's Telework Program be improved to better meet the needs of your organization? Check all that apply. (n=71)

    0.0% More presentations
    2.8% Additional materials that can be distributed to managers and employees→ List specific topics: See Appendix B
    4.2% Assistance with the Oregon Business Energy Tax Credit for telework equipment
    1.4% More one-on-one assistance in creating a telework program at my organization
    4.2% Additional training opportunities → For whom? See Appendix B
    4.2% Other See Appendix B
    42.3% None

Now, we would like to ask some general questions about telework in your organization.

Q-16. Does your organization currently permit any employees to telework? (n=192) missing = 4

    50.5% Yes
    49.5% No → **Please skip to Q-31**.

Q-17. Do you allow telework at your organization as a way of satisfying the Department of Environmental Quality's Employee Commute Options (ECO) Rules requirements (for employers with 51 or more employees)? (n=95) missing =3

    22.8% Yes
    46.7% No
    5.4%   Not sure
    18.5% My organization has 50 or fewer employees
    6.5%   Marked "No" and "My organization has 50 or fewer employees"

Q-18. How many of your organization's employees are offered the option of telework? (n=95) missing =0 Mean=16.8, Median=4.0

Q-19. How many of your organization's employees telework one or more days per week? (n=95) missing = 0 Mean=9.4, Median=2.0

Q-20. What types of positions do teleworkers at your organization hold? Check all that apply.
(n=95)

12.6% Administrative/Clerical   6.3% Supervisor
50.5% Professional   23.2% Middle management
9.5% Technical/Assembler   21.1% Senior management
28.4% Sales   11.6% Other(s) See Appendix B
17.9% Project management   3.2% Not sure

Q-21. What percentage of your organization's employees will never be offered the option to telework? Mean=65%, Median=80% (n=95) missing =24

Q-22. Has telework reduced the number of commute trips your employees make? (n=95) missing =4

62.6% Yes → Please estimate the number of trips saved per year. (n=95) missing= 51
16.5% No
20.9% Not sure

Q-23. Please indicate your level of agreement with each of the following statements as they pertain to your organization's telework program. (n=95)

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Sure
Telework improves employee morale.	25.5%	44.7%	17.0%	5.3%	0.0%	7.4%
Telework increases equipment and/or service costs.	12.0%	19.6%	25.0%	30.4%	4.3%	8.7%
Telework increases employees' productivity.	7.5%	34.4%	34.4%	9.7%	1.1%	12.9%
Decreased face-to-face contact with teleworkers makes management more difficult.	14.0%	34.4%	18.3%	28.0%	3.2%	2.2%
Teleworkers exhibit greater job satisfaction.	17.2%	41.9%	28.0%	3.2%	0.0%	9.7%
Technical difficulties or disruptions make telework difficult.	2.2%	29.3%	33.7%	22.8%	2.2%	9.8%
Telework reduces overhead expenses.	1.1%	19.4%	31.2%	36.6%	6.5%	5.4%
Telework provides less direct control over employees.	5.4%	44.6%	27.2%	18.5%	2.2%	2.2%
Offering telework helps attract high quality employees.	11.8%	31.2%	37.6%	5.4%	1.1%	12.9%
Scheduling meetings with teleworkers is more difficult than with non-teleworkers.	8.6%	39.8%	18.3%	28.0%	1.1%	4.3%
Offering telework assists in employee retention.	12.9%	48.4%	24.7%	4.3%	0.0%	9.7%
Communication between teleworkers and co-workers is difficult.	1.1%	16.1%	34.4%	38.7%	4.3%	5.4%
Telework helps meet the ECO Rules requirements.	8.6%	29.0%	22.6%	4.3%	1.1%	34.4%
Communication between managers and teleworkers is difficult.	2.2%	12.9%	24.7%	46.2%	6.5%	7.5%
Telework improves work quality.	6.5%	20.4%	54.8%	7.5%	0.0%	10.8%
Telework improves flexibility in the workplace.	24.7%	58.1%	12.9%	2.2%	0.0%	2.2%

Q-24. How do teleworkers communicate on a day-to-day basis with other employees? Check all that apply. (n=95)

78.9% Teleworkers call into office   28.4% Fax
58.9% Office calls teleworkers   8.4% Written correspondence
18.9% Call forwarding   10.5% Other __See Appendix B
67.4% Voice-mail   4.2% Not sure
88.4% E-mail

Q-25. Has telework changed your organization's management style? (n=95) missing=6

4.5% Yes → In what way(s)? See Appendix B_____
_____

95.5% No

Q-26. Does your organization provide equipment to teleworkers? (n=95) missing=5

57.8% Yes
33.3% No
8.9% Not sure

Q-27. Was the availability of the Oregon Business Energy Tax Credit a consideration when you established your organization's telework program?(n=95) missing=4

2.2% Yes
89.0% No
8.8% Not sure

Q-28. Has your organization received or applied for an Oregon Business Energy Tax Credit for telework equipment?(n=95) missing=5

0.0% Yes
76.7% No → Why not?
            1.1% Paperwork was too complicated
            9.5% Incentive is not great enough
            38.9% Did not know about the tax credit
            16.8% Other See Appendix B_____ →**Please skip to Q-33.**
23.3% Not Sure →**Please skip to Q-33.**

Q-29. What was your overall experience using the Oregon Business Energy Tax Credit for telework equipment?(n=0)

____ Very positive
____ Somewhat positive
____ Somewhat negative
____ Very negative

Q-30. Are there ways in which the Oregon Business Energy Tax Credit for telework equipment could be improved?(n=0)

____ Yes → How could it be improved? _____
_____

____ No

Q-31. Why doesn't your organization allow employees to telework? Check all that apply. (n=93)

    <u>22.6%</u> Too costly to provide equipment
    <u>72.0%</u> Not feasible because of the type of work
    <u>23.7%</u> Communication is too difficult
    <u>19.4%</u> Lack of direct control over employees
    <u>17.2%</u> Our organization employs fewer than 51 employees and is exempt from meeting the Employee Commute Options (ECO) Rules requirements.
    <u>11.8%</u> Other <u>See Appendix B</u>
    <u>4.3%</u> Not sure

Q-32. Would you consider allowing employees to telework in the future? (n=93) missing=18

    <u>42.7%</u> Yes → What would need to happen in order for this to take place? <u>See Appendix B</u>

    <u>57.3%</u> No → Why? <u>See Appendix B</u>

Finally, we would like to ask some questions about the characteristics of your organization.

Q-33. Please indicate the type of industry or profession that most accurately describes your organization. Check only one (n=192) missing=12

<u>1.1%</u>	Agriculture, Forestry, Fishing	<u>19.4%</u>	Manufacturing
<u>5.0%</u>	Transportation, Communication, Utilities	<u>4.4%</u>	Retail trade
<u>1.1%</u>	Construction	<u>1.7%</u>	Eating and drinking establishment
<u>5.0%</u>	Finance, Insurance, Real estate	<u>6.1%</u>	Wholesale trade
<u>6.1%</u>	Business services	<u>14.4%</u>	Government agencies
<u>3.9%</u>	Health services	<u>6.7%</u>	Non-profit organization
<u>2.8%</u>	Other services	<u>22.2%</u>	Other <u>See Appendix B</u>

Q-34. In total, how many full and part-time employees are currently employed by your organization? (n=192)

    <u>Mean:361, Median:89</u>   Total number of employees

    <u>Mean:223.3, Median:70</u>   Number of full-time equivalent employees (1 full-time equivalent employee is one employee who works 40 hours per week; i.e., 2 employees who work 20 hours per week equal 1 full-time equivalent employee)

Q-35. Please share any other comments you have in the space below.

<u>See Appendix B.</u>

We sincerely value your responses and thank you for taking the time to fill out this survey. Please mail your answers back in the postage-paid envelope provided.

Transcript of Employer Survey Comments

The employer telework program evaluation survey offered many opportunities for respondents to provide written comments to supplement their answers. A transcription of all responses to open-ended questions follows. The comments are presented organized by each open-ended survey questions. Individual comments and comment categories are not presented in any specific order.

Q-3   What types of positions in your organization are most suitable for telework?

Other:

- Engineers
- Transcription
- Business manager
- Word processing, graphics, statistics
- Sales only when not on in-person sales calls
- Technical- software developers
- Engineering
- Telephone counselors
- Computer programmers
- Claims adjusters
- Human Resource
- All positions at this store
- IS Coders, developers
- Individual contributor
- Maybe marketing and some social services
- Reporter
- IS, Order entry
- Production designer/ planner
- Autotyping
- Consultants
- Very select positions
- Information technology
- Computer support
- Marketing, computer projects
- Analyst
- Engineer (PLC)

Q-4 Are there any characteristics that make employees better suited for telework?

Other:

- Environment of home
- Trust
- Job performance
- Trust worthy, reliable
- Assigned job duty
- ADA
- Location and the nature of their specific job (tele-sales, for example)
- Performance level
- Willing to be flexible and give as much as the firm needs to give to make it work
- Area lined to access networks
- Ease of using it
- Computer/ electronics knowledge/ skill
- Works alone on projects
- Work group, organization need of the job, employee's performance
- Space consideration
- Type of work best suited for telework
- Established "benchmarks" i.e. minimum output
- Computer at home
- Performance
- Experience

Q-5 Are there barriers that make telework difficult in your type of organization? What are they?

Access to Information/ Confidentiality

- Access to files and other information not on computer
- Staff use resources in the office
- Efficient access to computer system and organizational database
- Regulation issues surrounding patient privacy, confidentiality of protected health information
- External network access
- Computer system in intra-net www
- Access to information
- Employees not having access to secured systems, such as LAN Ethernet databases
- Intellectual property not allowed off-site
- Our Intranet system is not set up for outside access
- Personnel files for individuals are retained here

Technology and Communication

- Technology, infrastructure
- Computer problems at home
- Ease of use with network technology, starting up admin of VON routers
- Incompatibility of software
- Having high-tech equipment at home – being available to answer questions or attend meetings
- Ensure connectivity is adequate
- Antiquated communication system
- Paper trail
- Communication
- Equipment compatibility
- Connectivity issue with home equipment and VPN (Virtual Private Network) capacities
- We are not very computer sophisticated
- Sometimes software needs to be installed at home etc. Due to level of sophistication of mfg equipment.

Must be on Site – Production Environment

- Space and office equipment
- Access to specific equipment on site, and the need to have face to face communication
- We are a manufacturing plant
- Most positions require associated to the on site
- Manufacture custom order capital equipment
- Most employees work on large equipment or as a group
- Facility is a production environment
- Job type. This is an operational organization which makes telework difficult
- Manufacturing – most jobs require you to be at the facility
- Mainly production work
- Most positions require operating machinery in our facility
- Manufacturing – critical to be located on site
- We are a hands-on art college – work is done in studios with materials that need special equipment
- Manufacturing requires physical proximity to production equipment and direct communication between the major functional units (i.e. sales, engineering, purchasing, shipping, manufacturing.)
- Manufacturing environment for most positions on-site is required to perform job
- Job manufacture relaying on machine to produce product
- We are a manufacturing company – difficult to telecommuting with hands- on manufacturing production.
- We run a production plant (manufacture food)
- Equipment

- Production environment, very hands-on
- Manufacturing does not lend itself to telecommuting
- Manufacturing food in this plant
- Our organization is manufacturing
- We are a manufacturer – need to be on site
- We are a manufacturing facility – lots of hand-on, on-site work!
- Manufacturing operation requires hands-on management
- Most services are performed on site (hands-on)
- Nursing is a hand-on activity
- Catering facility
- Construction
- We install gardens
- We are in transportation logistics. Very hands-on.

Must be on Site – Face-to-Face Service Provider

- We are people to people contact service oriented
- We are a customer service industry. It is a small % of team member who could do some of the responsibilities at home.
- That is an automotive dealership service and sales can't be done at home
- We are a service industry with face to face interaction
- Consulting work is often collaborative (i.e. person to person)
- We are a sales oriented business (retail). We need face to face contact with clients
- Senior housing usually needs one on one contact
- Availability to customers
- State agency open all working hour to serve the public clients
- Airline= must be present at place of business
- We are health care provider, most jobs require an employee to be at work
- Service industry
- Customer service, labor (direct)
- We are an educational institution
- We are theater and performance based company that needs every employee workable onsite during schedules business hours
- Yes, we are a school – onsite teaching, etc
- Public service
- Healthcare industry – we need to be available to our clients and their families
- We are a retail store – we have nothing that can be done on the phone
- Still have to come into office to meet personally with prospective students
- We cannot load luggage by telework
- This is an elementary school
- Litigation law is high interactive and hard to adopt to telecommuting

- We have a service–driven organization with client ties and work in a team setting. This makes it difficult for many of our positions to telework
- Delivery service
- Retail – customer interface required at nearly 100% of time
- This is a food establishment
- Our employees need to be here to service out customers – they can not do the work from home
- All employee work directly with the general public or directly moving or repapering a vehicle. The rest are managers of these functions.
- We are a distributing company most of our employee are warehouse workers and sales reps.
- Some worker need to physically work at wholesale
- Need to meet with clients in person
- Many of our staff provide direct service to clients

Must be on Site – Internal Communication on Site

- Need for regular interaction with co-worker
- Need to interface in person at job site with other employees
- Need for meetings
- Need for written HR materials
- Some work need a lot of team work and communication. Need to be available for tasks that arise quickly.
- Onsite mtgs
- Necessary coordination with other department
- Secretaries must be on site in case of rush or last minute jobs
- Informal, in-office discussion
- At the management level – training employees that work under you, so much happens face to face for the training. So jobs like administrative are in the office jobs only.
- The administrative staff needs to be available for the sales professionals
- The need to have work reviewed by others, and communication skills
- Conversing with customers, venders, fellow workers; interaction is inhibited when not present
- The need to work with team of people

Must be on Site -- Other

- No job is suited for telework
- Small staff so
- Some positions not suited – mbg, administrative support
- Nature of the jobs
- Business requires the employee to be at work all the time
- We need people here
- Specific need to answer phone with office

- Distributor and wholesale
- We need employees here
- Small office – need for staff to be on hand to answer phones and receive clients
- Board is staffed unit 1.25 FTE office needs to be manned, on site generally

Management

- Management attitude – they don't trust employees to work without being watched
- Expectation that employees need to be immediately available and are not working if away from the office
- Lack of direct control, supervisor required
- New parent company and current business demands expectation
- The opinion of top management
- Depends on the managers – senior management's concern about loosing the team ethic
- Upper management comfort – more training needed
- Monitoring
- Onsite supervisor is necessary
- Jobs that are routinely performed – are all part of collaborative firm effort

Cost

- Funding
- Cost of new TW laptops
- Expensive equipment required
- Financial difficulties with technical requirement
- Costs
- Small staff – no office coverage

Multiple Reasons

- Benefit of face to face communication lost. Cost of travel if presence needed.
- We meet client face to face on regular basis. Confidentiality and safety is very important.
- We are of customer service organization, and customer calls could not be routed to people's home, also, our computers terminals require significant networking capabilities not available for home usage.
- Access to out internally published documents is only available at the office. Also, face to face interaction can prevent misunderstandings that arise through email and phone conversations.
- Computer hardware and software, financial issues
- Distance, and resource of computers and equipment
- Owner's attitude and we are manufacturing environment, you need to be here to build it
- Need to interface with multiple team members and outside clients/ consultants. Need for highly technical software/ hardware and expense associated with such.
- Cost, ability to deliver good customer service

- High levels of personal interaction, with members, requires access to central files
- Certain types of jobs not appropriate in general – manufacturing, safety, senior management
- 1) management resistance/ fear of losing "control" 2) security concern
- We are public agency that holds many public meetings, employees are required to be at the meeting and need to work in groups to prepare
- Contact with clients; access to work files and filing of court documents
- Secretaries work directly for lawyers, with not set day to identify tasks. Plus file location.
- Direct health care provider, confidentiality
- Service oriented business, complex data systems, large volume if paperwork handled by many individuals in company

Other

- The deal hospitality industry in the. . .
- Downtime of the equipment
- Some jobs require fare-time
- Constant flow of paper work and phone calls cannot risk loss of paper, or incur time and expense to copy and re-send. All diesel repair and parts work is on site except where in the field.
- OHSA standards must be met in home
- Other employers have to puck up helping internal customers in their absence
- People live in Vancouver and other live more than 25 miles away
- Except the nature of certain position
- Applying a telework policy within the confines of a union contract, the size of our organization (32) and the need to have employees available to the public, BOLI concerns (ergonomics outside a controlled office setting, security of information outside the office setting)
- Project an office production require onsite activity
- We are a small company. We provide technical service to clients and XXX. They call with emergencies and we have to travel XXX telecommuting employee to help. We immediately XXX to telecommuter employees

Q-6   Do you know where you can obtain information on telework programs?

Other:

- U of O
- Internal departments
- Office of personnel management
- Work intranet web site
- I have not looked but I know where to look on the Internet

Q-10   Did you start a telework program as a result of OOE's assistance?

Yes. From the list in Q-9, which types of assistance were most helpful?

- All
- One-on one assistance in developing policy and agreement
- Training
- Program was already under development. Materials were helpful.

No. Why not?

- We have been doing it on an as needed basis and went to OOE for future insight
- Our need come prior to presentation
- Not appropriate for this setting
- Employee requested
- We were working on a policy prior to becoming rule
- No contact
- Already in place
- Worked closely with DEQ
- Unsure, it was decision of former executive officer
- Not a lot of positions that would allow for telework at this facility
- No approval from senior management
- Had already began
- Program was already in progress
- We let employees telecommute on an ad hoc basis
- Site in process
- Have our own policy
- No formal policy, many people have laptops they use for travel, etc… but still keep regular office hours
- It isn't reasonable for our work
- We are doing it anyway
- Difficult for our type of business
- Already had it in place

Q-14   Are there other things that the OOE staff could do that would be helpful in meeting the telework needs of your organization? Yes. Please specify.

Yes:

- Presently -- time is very tight
- Send information
- Cheaper copies of telework video.
- Promote telework through media

No

- If we get in a position to encouragement more teleworks
- Not this time, but will be interested in getting more information in the Oregon Business Energy Tax Credit Program

Q-18 How many of your organization's employees are offered the option of telework?

- All are informed
- 100% of product development staff (20 in group)
- 2 of 15
- No formal offer in place (they do have a telework policy as a whole organization, but not in the facility he works.)
- Not formally
- Unknown: not formally tracked, informal arrangements
- Maybe 1/3 could do their jobs
- Varies
- 5 out of 35
- 9 of 10
- 10 % , but we would allow it even if there was no rule
- All
- Very limited – allowed only 4 out of 42 employees to retain their service and expense
- Not currently tracked
- None "offered" – employees must request the approved and have appointment with home office equipment.
- Less than 5
- 80%
- Unknown
- All
- 100%
- eligible for telework # on ad hoc based: 142
- Unsure
- Anyone whose position does not require onsite work, like a receptionist
- It's offered to all via our intra-net
- Varies
- Optioned case – 6 cases
- 75%
- Less than 20
- Less than 5
- 10%
- 25%

- No longer
- Don't know
- 95%
- Only for start periods of time when illness or other situation prevents employees from getting to the office
- case by case basis
- All but only 2 do it
- A few
- Case by case basis

Q-19 How many of your organization's employees telework one or more days per week?

- None currently
- Unknown
- Just a few
- Unknown: not formally tracked, informal arrangements
- 25%
- Not currently tracked
- Less than 5
- 20%
- Unknown
- 5-10 max.
- 7 regular out of 142 ad hoc
- Unsure
- Most employee telework occasionally rather than regularly
- 25-40%
- Less than 5
- IS
- 10%
- 3-4
- 10%
- Varies
- Don't know
- 5%

Q-20 What types of positions do teleworkers at your organization hold?

Other:

- Word processing, graphics, statistics
- Graphic artist

- Computer programmer, database manager
- Reporter
- Designers/ production planners
- Consultants
- Software development
- Marketing; computer data entry
- Web programmer

Q-21   What percentage of your organization's employees will never be offered the option to telework?

- Large
- Don't know
- Hard to have police officers and road workers telework
- Unsure
- It's hard with our IP. 4/10 shifts are the best option

Q-24   How do teleworkers communicate on a day-to-day basis with other employees?

Other:

- Instant messaging
- Remote office setups, phone/commuter etc.
- Pagers
- Cell phone
- Occasional physical visits
- Instant message
- None currently telecommuting
- At the store 5 days a week
- Only 1 worker here
- Cell phones

Q-25   Has telework changed your organization's management style?

Yes, In what ways?

- Has not actually been used enough to determine
- Telework has allowed lower cost sales to be profitable
- Adds flexibility
- Coaching has to be scheduled, rather than impromptu when needed.

Q-28   Has your organization received or applied for an Oregon Business Energy Tax Credit for telework equipment? No, why not?

Other:

- Very limited telework
- No policy for telecommuting in place
- Not eligible
- Teleworkers do not regularly work from home
- Less than 50 employees
- None telecommuting
- Only do it occasionally
- Doesn't apply yet
- Non profit
- Per store only
- Don't provide equipment
- No program at facility/too few teleworkers
- State agency
- Our teleworkers are in WA
- Not-for-profit

Q-30   Are there ways in which the Oregon Business Energy Tax Credit for telework equipment could be improved?

Yes, how could it be improved?:

- I don't know
- More publicity about the credit

Q-31   Why doesn't your organization allow employees to telework?

Other:

- Current business demands
- This would be thinking outside the box
- Drastically reducing business size and don't have employees now
- Lack of space
- Direct client contact would be lost
- Many employee already have laptops, but nee to keep reg. office hrs.
- They say these rules don't apply to state agencies
- It's not appropriate for our organization
- We are a service industry
- Never been discussed
- Other employees have to pick up helping internal customers in their absence

- Online computer concerns. Concerns about home environment and work comp issues.
- OSHA standard in home not economically feasible
- Lack of direct control and we have less than 51 employees for ECO – For 90% of our office employees
- Currently have no one in which it is appropriate
- We are a medical clinic – need to have face to face contact with our patients

Q-32   Would you consider allowing employees to telework in the future?

Yes, what would need to happen in order for this to take place?

Yes, Management:

- Educate upper management
- The bosses would have to agree to it
- Many of the staff would like to telecommute, but mgmt does not like the idea.

Yes, Technology:

- Improved ability to utilize organizational tools- a) computer systems; b) databases.
- Upgrade computers/specific positions
- Technology improvements, full-time staff to be in office/answer phones
- Employees who wish to do so. Implementation of new computer system this year will help
- System (IT) structure would have to be modified to accommodate it
- Clear expectations outlined and computer equipment

Yes, Research/Education of Telework in the Workplace:

- Company research on which jobs appropriate
- Would just need to research and see if it would be justifiable
- Examples and levels of convincing

Yes, Structure of Job/Position:

- The right job and individual circumstances
- Restructure some of the work
- Tasks aren't currently part of our program
- Nature of the work would need to change
- Position would need to enable remote work
- Situation dependent

Yes, Other:

- 1) Ensure security of patient protected health info. 2) Clarify BOLI Rules.
- A cultural change in the firm
- Unsure

- Don't know
- Hiring!
- Current employee doesn't have the space at home
- Maybe
- Funding
- We will continue to limit to 10% and only do when it makes business sense.
- We would need confidence that other employees would not be impacted. We are a public employer and would have to be assured that rate payers money was being spent wisely.
- Employee need in conjunction w/firm availability to support
- Not without specific situation, illness, bad weather, etc
- I have not received info about the tax credit.
- Approval from board and finding space
- Maybe, Admin positions only (controller, HR, customer service, sales)
- A change in perspective

No, Why?

No, Not Feasible:

- Not feasible because of the type of work
- Q31 answered it (not feasible because of the type of work, lack of direct control over employees)
- Not feasible for most positions
- Right now, it doesn't appear to be feasible
- Not feasible
- Not feasible
- As already stated – not feasible
- Not feasible

No, No Need:

- Don't need too.
- No need, everything is in office
- No need, small workforce already
- Not in the foreseeable future – company too small.
- Not my decision
- No current desire
- Not my decision

No, Type of Business or Services Provide:

- We provide healthcare services at clinics
- Manufacturing requirements
- Because it is a food establishment

- See answer to #Q31 (Too costly to provide equipment, Not feasible because of the type of work, Communication is too difficult, Lack of direct control over employees, Our organization employs fewer than 51 employees and is exempt from meeting the ECO Rules requirements)
- Current management would not allow in place of reg.office hrs. (then above in yes column stated, change of management)
- Must be on-site
- Because of the type of work we do. We are an Assisted Living facility
- Nature of job makes working from home impossible
- Our customers come to us
- Impossible in our business
- Our business- full service hotel
- Manufacturing facility has very few positions that are conducive to telework.
- Our industry is not conducive to telework, we are a customer/service based retail business
- Hotel industry needs staff on property
- Retail sales need associate for customer service in store

No, Other:
- Type of business
- Type of work
- Liability
- Too costly, need to be able to access paper files
- I'm not in a position to make that decision
- Change to that degree for a government agency would be difficult.
- Can't do with the type of employees here
- (see answers to Q31...) Too costly to provide equipment, not feasible because of the type of work
- Just wouldn't work
- Very difficult with our business environment

Q-33 Please indicate the type of industry or profession that most accurately describes your organization. (Other)
- Public Relations
- Technology
- Legal
- Tourism
- CPA firm
- Consulting Engineering
- Software
- Software

- Architecture, Planning, Interiors
- Law office
- Auto auction
- Design firm
- Education
- Apartment rental, office space rental, property mgmt
- Education Research
- Legal services
- Law firm
- Consultant
- Market research
- Customer services
- Sales
- Distributor
- Catering airlines
- Police
- Bindery
- Dental lab
- Engineering consultants
- Software
- Architecture/Interior design
- Art and Craft
- Senior housing
- Theater/entertainment
- Automotive sales and service
- Education institution
- A/E consulting firm
- Newspaper
- Direct mail/catalog
- Education
- Hotel
- Sports and fitness
- Environmental consulting
- Law Firm
- Dental Lab
- Office
- Hospitality
- MIS Center
- Architects
- Professional services-engineering
- Bakery

- Technical software develop/services
- Travel agency
- Law firm

Q-35   Please share any other comments you have in the space below.

- There are few, if any, jobs in this organization where telework would be effective.
- We were recently purchased by a new parent co. We are limited on computer equipment and all are learning new programs, processes, etc. in the past we had about 4-6 telecommuters – currently NONE not sure about future.
- Work culture in some professions are so ingrained that it will take a generational change in the workplace to see telework flourish in certain industries and professions
- Why doesn't your form fit your envelope
- 104 Employees in Oregon, Washington, Idaho, Arizona; 60 in Oregon
- We have had to discipline three employees for theft of time (wasting up to 3 hrs per day) for surfing the internet and writing non-work related emails. A union environment complicates the issue of "who" and "what position" is suitable for telecommuting.
- At a time when unemployment in Portland metro is among the highest in the U.S., this entire discussion seems less than fully relevant. I would must prefer to see the resources that are currently being expended on this topic diverted to something more fundamentally useful, like developing strategies and tactics to manage and facilitate job and economic growth in the region.
- Our agency does a lot of traveling as a group and equipment is available, but workload does not allow formal hours at home! The laptops etc. are given as a tool to keep up on workload while traveling.
- Recently we received a survey regarding telecommuting in the workplace. After looking it over, I can say that Oregon is doing so much to promote "telework" and bringing telecommuting to the attention of businesses and community organizations. Certainly implementing these programs in more businesses will cut down on traffic, pollution and save energy. Due to the nature of being a retail book and media store as well as having a full-service café, our sales activity takes place in our building and thus requires our employees to work on the premises. Thank you for sending us the survey and good luck in your community outreach program.
- Our main problem with teleworking is that teleworkers need to be more communicative with management as far as when they will be in the office.
- It's hard to say if the sales people are employees or independent contractors. Total employees is first with them, then without them (vv note: this is regarding Q34)
- We have 11 sites, only 1 qualifies as ECO survey. At that one site, only ~15% of employee base for the agency – the other 85% (approx 550) work at schools, other sites w/<51 or are itinerate (and do not qualify for survey). Yet they are most likely to telework.
- Telework is a great alternative if your occupation allows for it. However, working in an elementary school does not allow for this alternative. Perhaps positions at the district office would be more flexible in having a telework choice.
- We are an airline. We cannot load baggage or check passengers in from our homes.

- We're not interested in implementing a telework policy at [company name]. (140)
- 2 employees are equipped to perform telework, however telework does not replace time spent at the office
- Teleworking for our organization probably means implementing integrated ERP/MRP software with remote customer point of order terminals that permits downsizing of customer service/order entry employees – so the overall organization staffing level will shrink. The remaining employees must interact physically with each other because they need to access to tooling parts in a manufacturing setting.
- Please change our company contact to: XXXXX, Human Resources Manager.
- We have 5 outside sales reps who work out of their homes in states throughout the U.S. They communicate and receive instruction via fax, phone and email. 90% of their work is on the road. (We only employ 1 part time worker (32hrs/week) – all others are full time (40 hrs) vv note: believe this goes with Q34)
- I agree that telework is important but I can't see any way it could work in Senior Housing Projects
- My organization is made up of 2 persons for a total of 1.25 FTE. I am the Executive Officer and have some flexibility in my hours at the office. The .25 position is office assistant and needed at the work site all the time. I don't feel our organization can benefit from a telework group discussion (note: related to attending the focus group)
- See my comment on previous page…: Teleworking in Oregon is emerging. I believe we only have one employee (teleworking…). She's started in our California headquarters due to the long commutes required and is more widespread there. We expect it to develop more here as time goes on so I don't feel I can answer the rest of the survey (Q23-Q33 did not answer) Telework is just emerging in Oregon. It started in our California and other sites driven by the long commutes in the Bay area.
- We did not complete the survey because telework does not work with the type services we provide.
- To whom it may concern, I work for State of OR – DHS- Child Welfare. I'm not a supervisor or manager. As much as I'd love to see a telework policy with this agency, I know of none. My answers are limited. I'm unsure how I got on this list.
- Because of telework, I can accept jobs that previously were not profitable. Telework does work. (XXX XXX – An organization of 1 Producing Business Form)
- We allow employees to work at home on an occasional basis when they have sick kids, home appointments, reports to write, etc. We've tried regular work-at-home schedules and it is difficult on other employees when some are not around.
- Very responsive and helpful to our request for training tools (videos and handouts).
- At our particular facility and type of work we do not offer telework. But we rent office space for corporate employees who live in our area
- Equipment – Managers have laptops which they can take home so, in this sense, equipment is provided to some teleworkers.
- The key to telecommuting is the employees drive and willingness to make it work. If they slack at work telecommuting will not work for them.
- We have most of our sales force working from home in several different states because they travel to our customers. One employee in Oregon is not sales and requested work from home. Her work is such that she can easily do that from and we were able to accommodate her request. She is highly organized.

- I attach the ODOT policy
- We value the concept of telework and would be open to staff accessing this option in the future.
- Our management does not trust employees to work unsupervised. It would take LOTS of high-profile, large companies with whom we compete for employees to successfully implement telework and to make it popular for at least 2 years.
- (relates to Q28 No, incentive not great enough…) and time has gone by since the end of telework – 2 years
- We value the synergy of the workplace – that is, we recognize the benefits resulting from employees being in the same place at the same time to share ideas. Spontaneity is lost when some members of the group are not present
- We have many associates that live within 2 miles of our office in Clackamas. We feel this helps with air quality as we aren't driving miles into downtown.

Employer Focus Group Results

CPW conducted two focus groups with employers in the Portland metro region. Employers were recruited for these focus groups through the employer survey. Below are the minutes from the two focus groups.

Focus Group 1

The first employer focus group took place on April 11, 2003 from 1:00 to 2:30pm at the Metro office building (600 NE Grand Ave, Portland).

There were four participants in the focus group: participant 1 from a government agency, participant 2 from a business association, participant 3 from a medical/research university, and participant 4 from a private publishing company. Also present were Bill Barber from Metro, and the members of the CPW team: Jennifer Curkendall, Naoko Atsusaka, Allison Thayer, Valerie Vanecek, and Judy Williams.

1. Introduction

Bill introduced himself, and gave overview of Metro's involvement in this project.

Jennifer introduced the CPW team and gave a project overview.

The participants of the focus group introduced themselves and explained whether or not they had a telework program

Participant 1: He works at a regional office for a state agency in Portland. They have a formal telework policy but it is not heavily used.

Participant 2: He represents about half of the 800 towers in the Portland area. He has been trying to convince towers of merits of telework, but is meeting resistance, and telework is Not working well.

Participant 3: His organization is the largest employer in the Portland area. Telework is a "mixed bag" currently.

Participant 4: Their organization has 12 employees, and they have just started experimenting with telework.

2. Organizational Structure and Telework: How many employees are using your organization's program? How and why was the program started?

Participant 1: His agency's official policy was created ten years ago. The agency has a large number of designers, architects, and engineers and family people. They don't need to meet all the time. Telework provides them with flexibility. Around 30 out of 200 employees use the program. Their program started with a pilot project, and a sign up sheet, then a formal policy was written up.

Participant 2: Part of the problem is that they have to meet FEMA standards, Federal National Emergency Program. He believes that education for employers is needed, and sees that managers like to have control over workers.

Participant 3: Telework in his organization began 8-10 years ago as well. They have a lot of students and researchers who would not find telework compatible. Hospital administrators are not supportive of telework because of the need to see patients. But there is a large clerical staff that can telework. About 400-800 employees telework one day a week. Their organization is on the cutting edge of technology and has a very technically advanced library. Telework is not a formal policy at this organization; instead employees just ask their manager/supervisor if it's available.

Participant 4: They just started telework this past fall. The company was doing an energy conservation project with OOE, and he started doing more research and decided to set up a telework program on their own, not because of the tax credit. One person is experimenting with teleworking. This is facilitated by the company which provides networking for her.

How is telework offered to employees? Do they approach the supervisor or vice-versa?

Participant 3: People come to their supervisor and say "can I join?" It is an informal system. Not going into ADA compliance concerns.

Participant 2: He is working on education. He has worked with other companies on telework concept, and he is trying to educate the towers.

Is your organization motivated to offer telework because of the ECO Rules?

Participant 1: For his agency—yes and no. He thinks his department is exempt from the rule because they don't have a parking lot and are in the downtown area, and they use mass transit, but the rules are mandated so they go through the motions.

Participant 3: He is not familiar with ECO Rules.

Judy gave a brief explanation of what the ECO Rules entail.

Participant 4: His company participates in TriMet's Passport program.

Participant 3: He explained how the Passport program operates—providing an annual pass for the transit system that costs employers $615. Their organizations is not worried about ECO Rules. They implemented telework based on need. Parking is an issue for them, and it is very expensive. Currently they have 30% single occupancy vehicle (SOV) parking, but before they had 70% SOV. It started with trying to make more workers use mass transit, now 34% of workers use transit. In the last 12 years they have not added any new parking but they have grown from 6,000 to 12,000 employees. The provided the Passport free to employees for the first five years, then offered a discount, but this year it will cost $180 because of the budget. They may get up to 40% on transit. They are also working on carpooling, and now have 8 to 14% in carpooling. They designate certain parking places for carpoolers as well. Bill has helped them securing funding for cyclists, built showers, lockers, etc., and that is also growing. His perception is that TriMet doesn't like students, and he thinks PSU and TriMet should cooperate to provide more student bus passes. Telework has been overlooked somewhat in their organization. He feels that they need more information and education about telework, and he wants CPW (or OOE) to come to their campus, conduct a workshop, and assist them with telework.

How much assistance did your organization require to establish its telework program?

Participant 1: Telework is part of the collection of ECO Rules options. They needed lots of help to establish telework. OOE helped them manage and gave them technical assistance. They got lots of help from OOE who helped them manage the first pilot programs and develop their telework agreement.

Participant 2: Everyone they've talked to needed lots of assistance. He sees a great need for assistance.

Participant 3: Their organization is now a corporation, and they are pretty "wired." OGI is the technical area, and they are pretty innovative on their own. They have the technology, but the hard part is to get management approval. Kathy and Barb need to meet with human resources (HR) person to give it a boost.

Participant 4: They have not had any assistance from OOE specific to telework. They came up with idea on their own because it was an attractive option for certain jobs. They would like to have seen the OOE's package and assistance materials. Packages specific to the needs of small companies would be useful. His company finds that telework is easy for them because they are small.

How much assistance did you receive specifically from OOE?

Participant 1: His agency received assistance from OOE a long time ago so he couldn't remember the specifics, but mentioned that Kathy was involved. He explained that once you get telework established and there are good examples, it gets internalized and goes on its own so they don't need as much assistance anymore. Assistance is really just needed to start up telework.

Participant 4: Although he is not familiar with OOE's assistance, he suggested that OOE design packages that are specific to the type of organization. It would help to give them information and the confidence to start a program and to see that telework will benefit the company. They need something to chart a clear path.

Participant 2: He did receive assistance from OOE including lots of reading materials. He spent three days in Salem for trainings and got lots of info. He said he may have seen the videos.

Are you aware of the Business Energy Tax Credit Program? If so, have you applied for a tax credit?

Participant 4: Their company found that there wasn't a huge expense in establishing telework, but he's not sure why they didn't take advantage of the program. It may be that it was too small of a credit, so they just decided not to. He mentioned that including this information in the starting package would be helpful.

Participant 3: "Without OOE Staff, there wouldn't be telework in Oregon." The young workers coming in expecting it [telework] and pushing the envelope. They are computer literate people, that's why they started their program. Assistance with telework was not an issue for their organization. He thinks that education is the key, and he specified the need to get computer literacy into higher education as a requirement for graduation. Participant 3 went on to explain that they didn't get tax credit because there is a law that says that public agencies cannot get tax credits. Two years ago, their attorneys together with Kathy King re-wrote the law to allow public agencies to get the tax credit via a pass through program. Pass through programs have not been well publicized It may be difficult to find a partner. Their organization has not used the BETC for anything related to telework.

Participant 1: His agency may have a pass through partner.

Do you think telework has raised awareness of environmental issues?

Participant 1: He feels that telework is more of a lifestyle benefit—people are more excited about wearing their slippers than about saving gasoline. As a part of the broader program, however, he does feel it raised environmental awareness.

Participant 2: He mentioned that he talked to the City of Portland about changing how they assign tow trucks—currently it is by rote (whose turn it is) rather than by who is closest to the incident—which is not very efficient. In his opinion, towing people in Portland are "antiquated" and resist changes. He reiterated that he feels education is the key to addressing issues of decision making. Currently there are also security issues—for example, attorneys are perfectly suited to telework except for the security issues. His perception is that telework is more of economic issue rather than environmental issue.

Participant 3: They have taken everything to the next level. "Tele" everything – telework, teleconferencing, long distance education, remote learning a statewide database, etc. All of their classes are wired. In his opinion technology is the big key to promote telework.

Participant 4: Telework is based on the individual's desire to make decisions about when and where they work, to improve productivity, and to avoid driving. He thinks teleworkers are aware of the environmental benefits.

Participant 2: He sees that transportation concerns are not foremost reason for telework; instead it is economics that are the biggest concern for tower's association.

Has telework impacted management style in your organization?

Participant 4: Telework forces organizations to establish a better communication structure. It changes how they organize their days and their use of voice mail and email. This has a lot of impact, but it is not difficult change for their organization.

Participant 2: Telework means their managers need a different type of productivity measurement. Currently, managers see that employees are here and they produce "x" in an eight hour day. For telework there is no time clock, but time spent on-line may be measured. He feels that production level becomes hard to observe.

Participant 1: They allocate telecommuting tasks to people who would be working alone anyways—i.e. reading and research. Supervising these employees is indistinguishable because they already had email, and they were already talking with people all over the state.

Participant 3: They have many different management styles in their large corporation, but telework does not much require much of a difference. If you are a loyal and trustworthy employee, you are given the option. They have found that some people don't want to telework because sharing ideas is important for some workers, they love interaction, and they want to know what is going on in the office. Effective information sharing is needed between managers and employees. Wireless communication is frightening for some because of security issues.

Have there been any negative impacts of telework or any problems that have arisen?

Participant 1: There is a perception that some teleworkers are scamming. You can't physically see them, and if you can't reach them by phone, there is no way to know if they are there. There is nothing that can totally replace the sign in board. You have to be careful who is doing telework.

Participant 4: He again brought up the question of "how do you measure productivity?" Is telework just a way to stay home? He sees a need to go back to the question of whether telework is a good thing for their organization. Does telework really work? If management is so concerned, they haven't done the up front work before permitting telework. Their company doesn't measure productivity, either the work gets done or it doesn't, and he doesn't see the value in measuring productivity.

How does telework affect communications?

Participant 1: He stated that he doesn't personally like to telework. He needs to ask co-workers for their idea all the time. Face-to face contact is important, and with email, it is hard to get the same inflections. Telework 1-2 days a week is good, but not 5 days a week

Participant 4: They email each other even if they are in the office. Talking in their organizations tends to be more social than work-related.

Participant 3: He sees that people become more terse in their emails, and email responses are not as respectful as face-to-face communication. Email can be offensive and rude. Non-emailer/ non-PC people are still around.

Participant 2: He thinks that a schedule that mixes telework days and non-telework days works well.

Participant 1: He clarified that of the 30 people participating in telework at his agency, most telework 1-2 days a week.

How does telework affect teamwork and/or group work?

Participant 4: Their one teleworker is on a team. They find that having a teleworker on a team forces you to organize better. Well organized communication has been a positive by-product of telework in their organization. The trail of emails, documents, and voice mails creates a trail (record) of the process.

Participant 2: His perception is that telework and its effect on team work is related to the type of organization.

Participant 3: In their organization everyone still shows up for team meetings. They find that teleworkers are more conscientious and can overwork to try and overcome the negative stereotypes. Teleworkers are

more conscious about their role in the office and time scheduling. Their organization always has meetings at the same times. He stated that he trust people who telework because they usually have more commitment.

Participant 1: Telework hasn't been a drawback to team work in the organization because they are already networked, and they have regular team meetings one a month.

Has telework produced benefits or cost savings for your organization?

Participant 4: They don't see any cost savings as a small company. They purchase parking from a parking company monthly and pay for the space whether it gets used each day or not. It would be great to have a parking credit so that if they don't use it, it costs less; maybe they could work something out with the City of Portland.

Participant 1: The costs went up when telework was implemented because of need for servers and sending out ergonomics people to check the workspaces and deal with the workmen's compensation issues. They don't need to supply computers because most workers already have a PC, but they provide a modem and network card. There are no savings, but they see a net benefit to society when less gas is consumed. In response to a question of how they handle workmen's comp (from Participant 2), he explained that is why they send ergonomics people go out there.

Participant 3: He explained that the security agreement signed by teleworkers and employers addresses issues of ergonomics, and ADA compliance , but there still could be some workmen's com issues. He doesn't know that the big employers (Intel, Nike) promote telework.

Participant 2: He mentioned that he finds it hard to define "telework," And that security of the computer system is an issue.

Participant 3: Telework is at about 1-2% telework, and he doesn't see that growing in their organization because it is not in the strategic thinking or plan.

Bill: The Westside Transportation Alliance has government funding and private dues, and they are going to try and focus on telework. It will be interesting to see how that evolves.

Participant 4: The biggest motivating factor for telework is if the company sees that it will profit. When you have a small company that is growing they need to expand office space. Telework and shared space will be a great alternative to building additional work spaces, but this requires a fundamental change in how you organize office space. Right now they automatically provide new employees with a parking space, office chair, desk, computer, etc. Instead they need to advance their thinking by planning for the next two employees to share one space and telework. Large companies may have more flexibility in doing this.

Participant 1: In a competitive job market the ability to give workers the alternative of telework is an advantage.

Participant 3: To grow from 6,000 to 12,000 employees, they had to rewire every single space. It is very hard to be space and energy efficient. They still have a huge amount of energy consumption and space consumption. They have been trying to over wire and anticipate future needs which has a major effect on how they do architecture. They do not need to provide equipment because most people have a computer at home.

Participant 4: They provided the computer equipment, desk, phone, etc. because they felt it was better in the long run to supply equipment so that it would be equipment dedicated for work. This also helped address their security questions about viruses on personal computers that they don't want introduced into the network.

Several of the participants discussed the need for a firewall and the technical requirements of this.

How satisfied are you with telework?

Participant 3: They've just begun with telework. He feels that they haven't done enough. They need more education and more resources to make it happen.

Participant 4: They do not have practical knowledge about telework, but their organization likes idea. They have lots of questions and ideas that need to be connected.

Participant 2: Schools and students can be involved in making telework a reality. He suggested doing this as a work study program where students help organizations set up telework and sell telework to the public.

Participant 1: Getting students involved is a good idea and a great place to start promoting telework.

Participant 4: He also liked the idea that U of O and OSU are interested in telework, and he likes the idea of working with students. Students benefit with the education, and organizations benefit in infrastructure. They don't have the time to deal with setting up telework.

Participant 2: "Talking to the public sector is harder than talking to my dog." How you can sell telework to the public need to be considered more. He emphasized the need for more education, and outreach to help to setup plans for telework and show organizations the costs.

Participant 3: He is convinced that the necessary technology is coming out of the military system now. They have $30,000 packs that monitor every aspect of their lives. Right now in Las Vegas is a big "show and tell" this week for computers; everything is smaller, lighter and faster.

Participant 2: The downside to telework and the associated technology is that the under-classed and under-educated are going to be left out. The more technology gets invented, the greater the gap between the haves and have-nots.

Participant 1: He reiterated that he is not comfortable going further from the office more than 1-2 days a month.

Participant 2: The sophistication of the employer makes a difference in the feasibility of telework. Old curmudgeons get in the way. It's going to be the young people who change things. Technology and telework are moving into all professions. Attorneys will be the last because of security issues but they need it the most.

Do you think that telework actually reduces commuting trips?

Participant 1: Yes, telework reduces commuting by a marginal amount.

Participant 4: Yes, telework has an impact on commuting.

Participant 3: Maybe, but the impact has not measured. They still have parking spots, and don't have an estimate of savings yet.

Participant 4: The key is that if you have the desk, parking space, and computer at work still, you haven't accomplished anything in the way of cost savings.

Focus Group 2

The second employer focus group took place on April 18, 2003 at the Metro office building (600 NE Grand Ave, Portland) from 1:00pm to 2:15pm.

There were four participants. Also present were Bill Barber from Metro, and the members of the CPW team: Jennifer Curkendall, Naoko Atsusaka, Allison Thayer, Valerie Vanecek, and Judy Williams.

1. Introduction

Metro introduced the focus group.

CPW Project Manager then introduced CPW and the Telework Project. She explained the purpose and description of the program.

Participant 1 was from a bank that has a formal telework program.

Participant 2 was from an insurance company that has an informal telework program; 2-3 employees telework. Their company is very service driven, so telework only suitable for a small percentage of their employees.

Participant 3 was from a technology company that has a telework program of which 1/3 of their employees are "mobile."

Participant 4 was from one of Metro's facilities that has a telework program, and she has been a teleworker for about 3 years, but not many people do it. Participant 4 was not sure when it started, but there wasn't much in place. "We just started doing it." A team of employees from different divisions of the agency came together to discuss sustainable issues and that's where telework was brought up. There isn't anything that formal.

2. Organizational Structure and Telework: Why and when did your organization start a telework program?

Participant 1's company started a telework program in 1997 for a combination of reasons. There was a request of an employee who wanted to work from home, and their company had a lack of office space. They evaluated it, and it seemed to fit those situations.

Participant 2's company had its first teleworker (informal) in 1999. A female employee who commuted from Salem had just had a child and wanted more flexibility and freedom with her first child at home. In order to meet her demands, they provide flexible schedules, and other flexible work hour programs. This employee had a job where she could virtually work from anywhere because she's always at a computer.

In Participant 3's company was acquired by a larger technology company three years ago. The telework program was part of a work/life program that was maintained during the transition from the first company to the second. Telework was one of the work options within the work/life program. It became a way of life, flexible work schedules were a plus; however, it is up to individual manager to support the employee. The company pays for the second phone line, half of cell phone, etc. The company wants employees telework- if it's full time, the manager doesn't pay for the overhead costs of the employee on site. The company has second floor offices that are all mobile so employees can pick a workspace and plug in with their laptop. Participant 3 works one day a week from home-it is flexible and she could work more.

Participant four mentioned that employees just started doing it. Telework was started as an initiative of their "green team" which looks at sustainability issues.

Does telework contribute to office space savings?

Participant 1 stated, "Yes, definitely." His company was short of space, and with telework they can assign 3 people to two cubicles and rotate positions during different office hours. Due to office space availability several employees work at home; they can come in to the office and use the flexible work space. It significantly reduced office spaces, but parking is not an issue for their company.

At Participant 2's company telework is not related to a space issue, but rather it is in place to boost the morale of employees who wanted

flexible work schedules. All 3 employees that telework maintain work spaces at the actual office. Parking is always a challenge in downtown Portland, but hasn't been a factor in creating more teleworkers. Employees that do telework are in roles where they don't need access to files at the office site. They work on larger projects that are more consulting/professional and have full connections at home. Due to technology, people who call the teleworkers don't know where the employee is working (at which location) since their work phones are directed to their home. Due to the nature of the job, teleworkers might be driving more on their telework day—i.e. to client meetings.

Parking is definitely an issue for Participant 4's agency. They allocate parking spaces for only 4 days a week for all employees across the board. They either walk, ride the bus or light rail, carpool, or telework on the 5th day (each employee can choose the day they want). This keeps 20% of cars off the road, and for one day each week employees can manage it. They have staff cars on site, if emergencies come up, or to see clients, or they just get right on the Max. One suggestion to promote telework is for employers to offer parking spaces for only 4 days.

Participant 2 stated that in downtown Portland it is much cheaper to buy parking spaces in bulk so to speak.

Participant 3's company has open parking so it is not an issue. They offer different options. Employees commute with bicycles so they have bike corrals for their employees. TriMet passes are also available for a discount rate.

Is your organization motivated by the ECO Rules? (explained ECO Rules)

Participant 1 was not aware of it, but someone at the company probably knows about it.

Participant 4 knew they had something in place, but personally doesn't know; however, she was sure the senior manager had heard of it.

Participant 2 has heard of rule. They offer bus passes.

Participant 3 was totally aware of the ECO Rules, but didn't know if that was one of their reasons for starting telework before their company was bought out. The company just followed suit with TriMet, and wanted to offer more flexibility to employees; telework fit in with that.

How much assistance was needed to establish your telework program? (OOE, website, etc)

Participant 4 stated the most important thing was the Management Packet. It has been a long time since she saw it but it was great. Evidence to build the case to managers of why telework is a good thing.

Participant 4 thought that managers need more evidence- one really convincing piece would be the best.

Participant 1 said that at the time his company authorized telework as an option, they did not know of any assistance. It was based on the needs of an employee. After their first teleworker started they developed their own telework guidelines.

Participant 3 said they developed guidelines from scratch while working with the Westside Transportation Alliance. The goal was to collaboratively implement successful transportation options for employees. They developed their own training packets from the packets they received from OOE to make them more specialized to their organization and sent them out to employees. They haven't asked for or sought out any additional assistance.

Participant 2 said her company requested policies (that were already set in place by NY attorneys) from their New York office's employee relations department. They had all of the agreements set with all the liability issues. The agreement consists of 3-4 questions for the employees, and it addresses the risk issues.

Participant 4 heard in a meeting with Metro yesterday that telework had been discouraged because the liability issues. Participant 4 sees a need for assistance with the risk issues associated with telework, and she thinks they could use some sample policies to work from.

3. How much assistance did you receive specifically from OOE? And what type(s)?

Participant 4 has a kit from OOE in her office.

Participant 3 stated her organization developed things internally but that someone in their office probably has that stuff.

Participant 1 said he became aware of the assistance after their program was established.

Participant 3 stated they worked closely with OOE and the assistance program. They received kits, presentations and workshops. She said they were one of the first organizations to receive them. They used videos and presented the information at their manager/staff meetings, and then rolled out the assistance internally. They also did trainings with state dept.

Are you aware of the Business Energy Tax Credit program?

Participant 1 said he was not sure who did, but their organization has used it, and received credits. He doesn't know the specifics.

Participant 2 didn't know for sure, but doubted that her company used it unless it was significant enough. "We're a fortune 500 company, so we probably do not use it." She also said for the bigger companies, unless

the program is significant enough to pay for the resources to pay for tracking, it won't be used.

Participant 4 said, they don't pay taxes (so is irrelevant).

Participant 3 stated that before the buy out her company didn't have a way to track flex hour options. After they were bought out by the larger company she wasn't sure because her company was now so big and all of the accounting is done out East.

Do you think Telework has raised awareness of environmental and transportation issues?

Participant 3 said they are definitely environmentally conscious-the environmental aspect is one piece of the bigger picture. Telework is one part of the way to help those issues. Telework also fits with the work and life balance.

Participant 4 said it was totally an environmental issue, but that it could be other way around—employees looking to be more environmentally conscious have a raised awareness about telework.

Participant 1 agreed.

Participant 2 stated it was more about flexible work lifestyle.

4. What effect does telework have on management styles?

Participant 1 stated that they have had to adapt, because work is no longer eye-to-eye or face-to-face. It takes a different style of management-monitoring performance. It has led to management by results, not by day-to-day activities, which he thinks is the best way. If an employee is responsible for writing communications, and is on a deadline, the measure would be whether or not it got done. For project managers, measures would be whether or not the project is on time and on budget.

Participant 2 said telework hasn't changed the nature of management in her company since it's so communication intensive. She said that it has to do more with the employees that telework; the teleworkers are their "star performers," so it hasn't been a large adjustment for management. Only their exemplary employees—those professionals with excellent work styles—use telework. She also said that managers must be on board and open to the idea.

Participant 4 stated telework is about the nature of the organization. It tends to be the managers and "higher ups" that are the teleworkers.

Participant 3 stated that it was a change of behavior for their organization. In the beginning, they chose 20 employees to test telework out. Within that, they gradually trained employees about different behaviors- on how to treat other employees, respect, and flexibility. When cell phones became available they had training on how to communicate and get a hold of people. This work behavior has

continued to become technology-based with instant messaging, email, second phone lines, and internet so managers now have even more ways of keeping track of their employees. "As a manager, I know when my people are available, and I know to measure by results. We have plans in place, metrics, and timelines in order to measure performance and for teams to make an effect on the bottom line. It's a new way of thinking as a manager. Today, we manage people in Florida, and other states, so it is somewhat the same as managing telework."

Is communication an important aspect of successful telework?

Participant 3 said, "Definitely." The communication has to be at 100% or else team members feel left out. If you can't get a hold of someone, or someone doesn't show up the team may fail. Communication is the number one determinant of whether or not telework works.

Participant 1 stated that communication is definitely the key. He didn't know whether this was a cause or effect relationship. All the technology seems to come along concurrently with telework--but whether telework is an effect of technology, or the reverse, he was not really sure.

Participant 4 said they definitely telework because of the technology that's available. As far as the communication question, she stated that her telework day is the one day that she is always available.

Participant 1 thought telework has improved communication even with those who do not telework.

Participant 4 stated that so many of us are over communicated with. When you're at your office site, there's a steady stream of everything-emails, phone calls, people who show up at your door and walk you're your office. On telework days it is so much more peaceful, I have time to plan and think through things. Telework limits a certain amount of extraneous communication, which is sometimes a good thing.

Participant 2 also stated that technology has been a strong driver of telework- because everyone is limited by time, it helps everything and helps drive the process.

Has telework affected how group work is done?

Participant 1 said, "No, if there is a need for the group to be together, then they are together." Group dynamics involving telework is a positive affect. Now people don't rely on getting together with everyone physically being there. If they have a meeting, it's almost guaranteed that a certain number of people will be on the phone. Before, meetings were delayed, or rescheduled if not everyone was in physical attendance.

Participant 2 stated that telework has increased employees' flexibility, and if there's a scheduling conflict, the teleworker switches the telework day to make arrangements. If anything, telework boosts the

morale. Because teleworkers aren't in the office every day, it helps strengthen the team's relationship.

Participant 1 said it also forced leaders to prepare meetings ahead of time, and to get more organized ahead of schedule.

Participant 3 stated that initially telework did have an impact on teamwork. Now, it's second nature– web casts, e-meetings, call in by conference call for example. Individual contributors really look forward to it. It's more a way of life. People see many positives in it. Employees look forward to days when their managers telework because that means they are available.

5. Has telework required any investment? Any concerns with that? Has it reduced costs?

Participant 1 said there have been costs, but the net effect has been savings. Investment includes: phone lines, laptop computers, etc, but whatever expense was put in, it is much cheaper than a whole new furnished office. The risks involve allowing employees to use the network at home, but so many people travel and hookup through hotel rooms, and call clients while on the road, telework is just included in that risk that already existed.

Participant 2 said there were upfront substantial costs such as laptops (although some employees already had these), DSL connections, cell phones, and IT's time to forward phone lines. Space isn't an issue for her company, but if it was, telework may be an option of addressing the space issue.

Participant 4 said she could use most everything from home, including connecting to her network. It really helps to not have to lug a laptop back and forth. She has everything at home that she would at work, except for special network access to certain files. Expenses could be less, as new methods of accessing and networking develop. (i.e. Wireless).

Participant 1 stated that the bigger issue of security from home is viruses from your home computer. You have to be careful by installing protection software.

Participant 3 said there was an initial investment, but it weighs out with the work life balance. If you measure the results, work gets done, or it doesn't. It weighs out the costs through employee accountability. With a full time telework employee, the manager doesn't have overhead costs because they don't need have a permanent office, they just use the mobile center.

6. How well do you think telework is working? Are there any problems?

Participant 1 said it works very well. This is in part because they've screened whom they allow to telework. They are comfortable with the

work being done because of the people who are doing it. When asked to clarity how they screen whom they allow to telework, Participant 1 responded that he couldn't remember off the top of his head, but knew that employees must not have any negative performance ratings and their job must lend itself to telework.

Participant 2 stated that telework works well. The negative side is that it is so limited in the job positions that can currently participate. They make up for this by offering flex hours or a reduced workweek. It is more difficult to implement across whole organization, but the people who work at home are the most productive.

Participant 3 said it totally works well for her organization. It has been very successful for both the employer and the employee (for the whole organization). You can get so much done while teleworking. It decreases commute time- it has been very successful.

Participant 4 stated that for the people that do telework, it works great. There needs to be more people doing it. She keeps hearing from other coworkers that they couldn't do it because they know they aren't disciplined enough. People are self selecting—they opt themselves out of the program. There are managers who aren't on board, and who have said no to their employees. They say things like people have to be on site. It's really about control issues. She thinks managers either trust human beings, or they don't. The hardest obstacle is the attitude of the manager and their fear of losing control.

Do you think management attitudes are related to when they became a manager? Will attitudes change as a new generation of "technology-savvy" managers come into place?

Participant 4 stated that in her agency it is a small sample size to base question off of – male, female managers in her agency are half and half.

Participant 1 stated it is due to personal management style and whether the manager became involved before technology.

Do you think telework has reduced commute trips?—namely, single occupancy vehicle trips

Participant 1 said yes, the day they don't come into the office, they don't have to drive in which is significant because 99% of employees drive since their office is located in the suburbs.

Participant 2 stated yes, definitely, especially from the employee who commutes from Salem.

Other topics discussed after the meeting was concluded

Participant 2 stated that sometimes their managers stay at home specifically so they can get stuff done. They are "tied to their computers" whether at home or at work.

Participants 1 and 4 also noted that managers and employees at their organizations are also tied to their computers, and telework allows them to work even when they're sick or they can't sleep. Some organizations are offering telework "unintentionally."

Participant 4 also noted that the City and Intel have been looking at how to make the whole City wireless, and Intel has a "100% E" committee working on eliminating all use of paper.

Employee Survey Results

CPW surveyed employees to gather information about employees' perspective on telework. This appendix presents the results of the employee survey. It begins with a discussion of the survey methods, then presents the survey results, and concludes with a copy of the survey instrument.

Survey Methodology

CPW conducted a survey of employees in the Portland metro region to gather quantitative and qualitative data on employees' perspective of telework. The online survey consisted of 44 questions (see survey instrument at the end of this appendix). Prior to survey administration, the survey instrument was reviewed by OOE, Metro, and TriMet staff.

Potential survey respondents were identified through the employer survey. An insert in the employer survey asked respondents whether they would be willing to ask their employees to complete a survey. Approximately 20 organizations distributed the survey to their employees. The link to the survey was sent by email to the human resource department or managers at those organizations. CPW also sent the email to a few additional organizations recruited by OOE staff to increase survey response. CPW sent reminder messages and follow up phone calls to the employers who agreed to distribute the survey after the initial distribution. After a few weeks, CPW received a total of 376 responses to the employee survey.

Conducting an on-line survey does create a number of limitations compared to a mail survey. There is no way to determine a response rate since it is very difficult to accurately determine the number of employees who received the email survey from their human resources department or from their managers. Since the survey was posted on the internet, there is the possibility that anyone surfing the web could complete the survey. A person could also attempt to complete the survey more than once, which is also a potential limitation.

The employee survey consisted of five components: (1) how employees commute to work; (2) general telework issues; (3) experiences of teleworkers; (4) exposure to telework outreach assistance of both teleworkers and non-teleworkers; and (5) demographic information about the respondents. The questions addressed what aspects of telework do and do not work well for employees, the barriers to telework, the benefits of telework, and sources of information regarding telework.

CPW used the Statistical Package for the Social Sciences (SPSS) software program to analyze the data using both frequency distributions and cross tabulations.

Findings

The findings that follow are organized into five sections:

- Demographics of survey respondents
- Commute patterns
- Questions about telework for non-teleworkers
- General perceptions of teleworkers
- Telework assistance for employees

Each set of findings is based on one or more survey questions. The corresponding survey question numbers are provided so that readers can cross-reference the findings with the survey instrument located later in this appendix.

Demographics of Survey Respondents (Q-36 through Q-43)

The survey included a set of demographic questions intended to better understand the characteristics of respondents. Of 376 total survey respondents, 63.4% were women and 36.6% were men. The mean age was 40.8, (median 41.0). When asked the number of individuals age 18 or over in their household, the mean response was 1.95 (median 2.0); the mean number of individuals under the age of 18 in their household was .57 (median 0).

Average Income in 2002 (Q-40)

The results of the survey showed a spread of individual income levels of respondents in the year of 2002. Figure D-1 below illustrates the range of personal income levels. The average of respondents' incomes is around $50,000 which is significantly higher than the average pay of $37,700 per worker in the Portland area.[29]

---

[29] Oregon Labor Market Information System Covered Employment and Payroll: Portland PMSA 2000. http://www.qualityinfo.org/olmisj/CEP

Figure D-1. Respondents' Individual Income
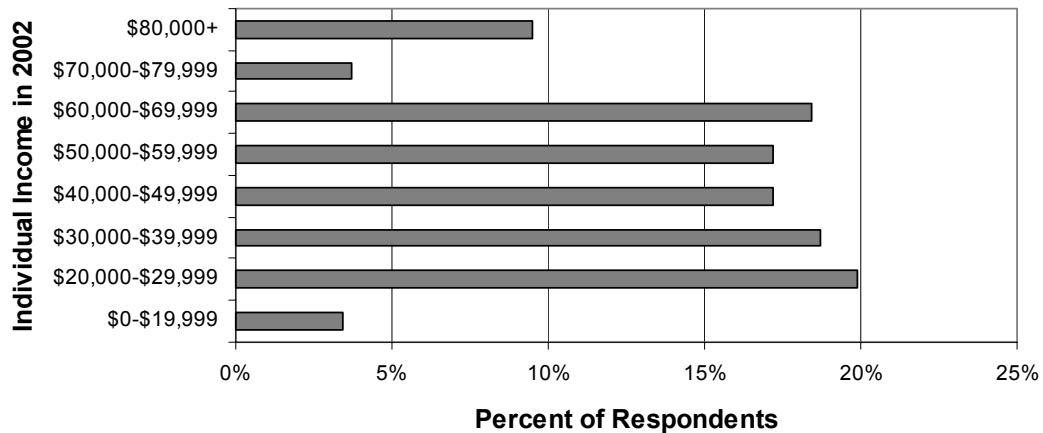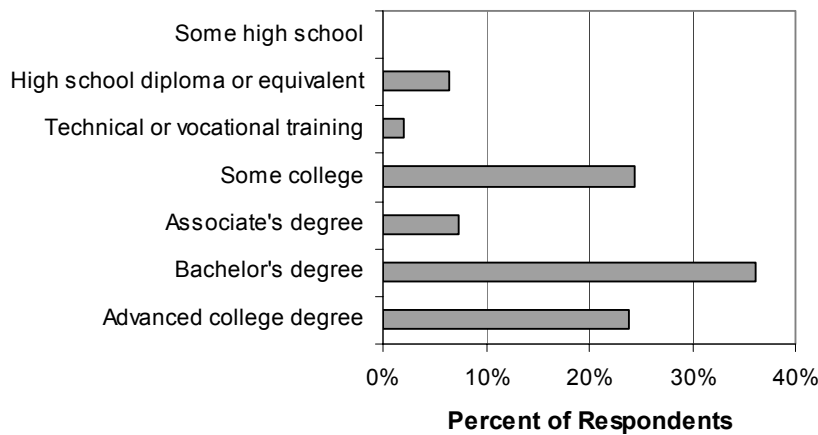

Source: Employee Telework Program Evaluation Survey

Level of Education (Q-41)

All respondents had completed high school, or an equivalent form of education and, over half (60%) of the respondents had either their bachelor's degree or an advanced college degree. Figure D-2 shows the total breakdown of the educational level of the survey respondents. Survey respondents are generally more educated that the general population of the Portland area in which only 28.8% have a Bachelor's degree or higher and 87.2% have completed high school. [30]

Figure D-2. Respondents' Education Level

Source: Employee Telework Program Evaluation Survey

---

[30] U.S. Census 2000 for Portland PMSA. www.census.gov

Respondents' Industry and Occupation (Q-42, Q-43)

When asked the type of industry or profession that most accurately describes the organization respondents' work for, 39.2% of respondents were from finance, insurance or real estate professions and 42.2% were from government agencies leaving only 18.7% of respondents from other industry classifications. Figure D-3 below displays all industry types and the percentages of respondents that work within each type.

Figure D-3 Industry of Survey Respondents and OLMIS Average Employees for 2000
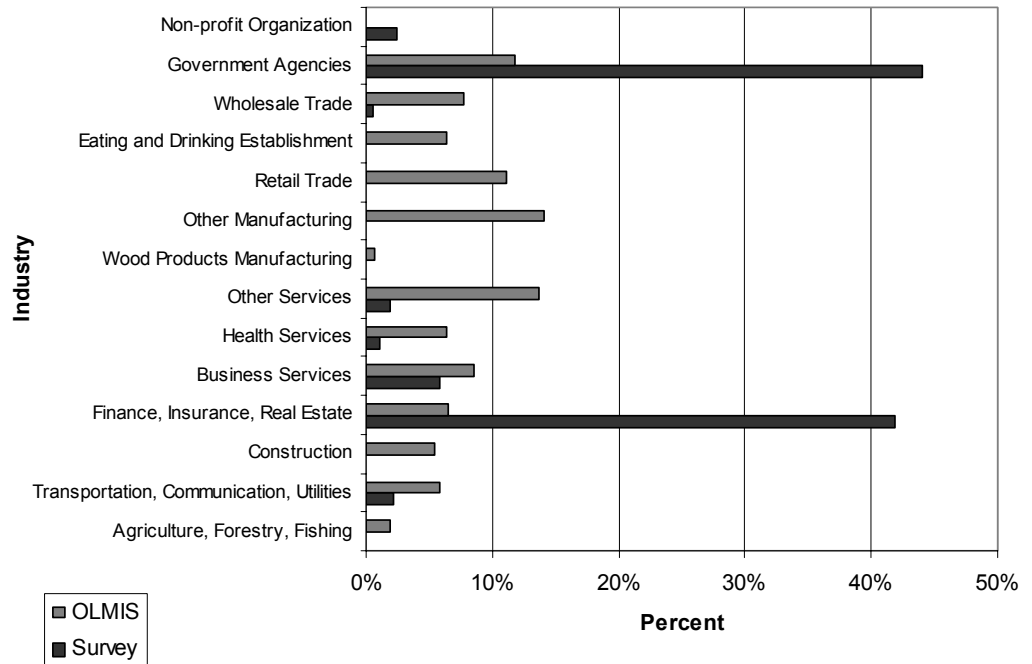
Source: Employee Telework Program Evaluation Survey and Oregon Labor Market and Information System (http://www.qualityinfo.org/olmisj/CEP)

Figure D-4 shows that one-third (33.9%) of respondents chose "professional" as the way to best describe their occupation. The second most chosen description was "administrative/clerical" with 22% of respondents identifying themselves as such. "Management" occupations were the next highly chosen with 11.6% of respondents considering themselves as "middle management" and 1.4% considering themselves "senior management". 11.3% of respondents chose the "other" category which ranged from "Theater & Entertainment" to "Information Technology Consulting" occupation type.
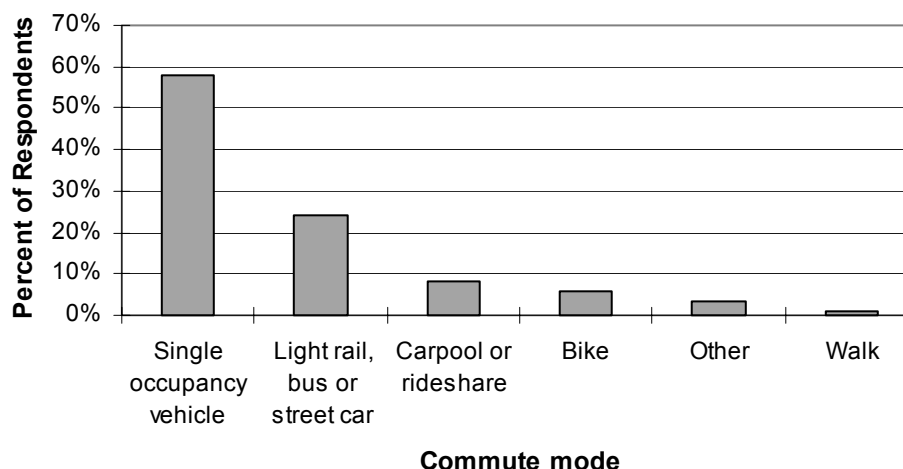
Figure D-4. Respondents' Occupation
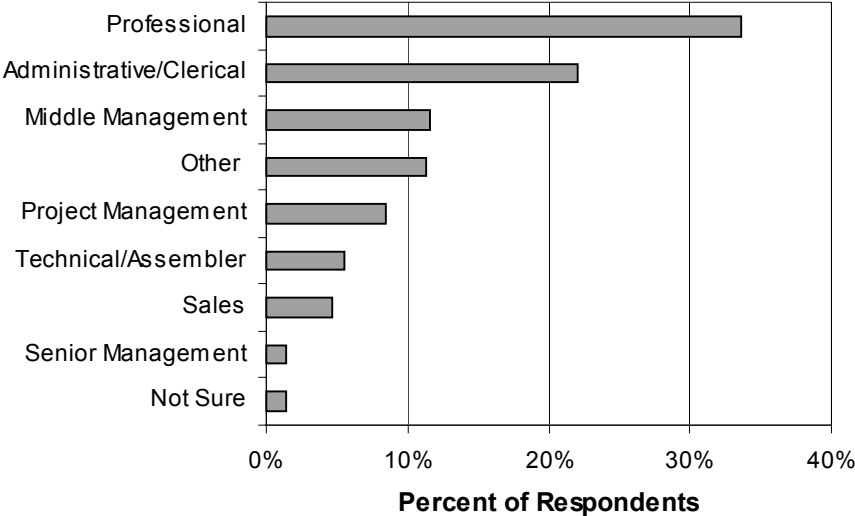
Source: Employee Telework Program Evaluation Survey

Commute Patterns (Q-1 through Q-4)

Survey respondents were asked questions regarding their commute to work. Figure D-5 shows the percentage breakdown of how all 376 survey respondents typically commute to their main place of work. Data from the 2000 U.S. Census show that 75% of commuters in Multnomah, Clackamas, and Washington Counties use single occupancy vehicles; 8% use public transportation; 12% carpool; 3% walk; and 2% use other means of transportation. This shows that, in comparison with data from the 2000 U.S. Census, a higher proportion of survey respondents utilize public transit and bicycling, and a lower proportion of survey respondents drive alone or carpool.

Figure D-5. Respondents' Commute Mode

Source: Employee Telework Program Evaluation Survey

Figure D-5 shows that the majority of respondents typically drive a single occupancy vehicle to work (57.8%). Almost a quarter of the respondents use public transportation-light rail, bus or street car to get to work. The "other" category which received 3.5% of responses were combinations of two of the other commuting options. Examples of these responses included "alternate between carpool and bus," "bus to work; rideshare home," and "1/2 park & ride; 1/2 rideshare."

Respondents were also asked how far they live from their main place of employment. The mean response was 12.6 miles (median 10 miles). Respondents reported that they spend an average (mean) of 60.4 minutes (median 50 minutes) per day commuting to and from their main place of work. This result is similar to that of the 2000 U.S. Census which shows that the average travel time to work one-way was between 23.7 and 26.2 minutes for the three counties in the Portland metro region. The last question in this section asked about the average number of hours respondents work each week, to which 40.5 hours per week was the mean response (median 40 hours per week).

## Questions about Telework for Non-Teleworkers (Q-5 through –Q-13)

The first question in this section defined the teleworkers from the non-teleworkers. When asked, "Do you currently telework one or more days a week?" Eighty-five point nine percent of respondents answered no, therefore being the non-teleworker group of respondents of approximately 316 respondents. More than 95% of non-teleworker respondents answered that they did know about telework or telecommuting before this survey. The 14.1% who indicated that they do telework were asked to skip to Q-14, the set of questions specific to teleworkers

Work from Home (Q-6, Q-7)

Thirty-four percent of non-teleworkers stated that they do sometimes work from home although it may be less frequently than one day per week. When asked "What percent of your work do you think could be done at home?" only 14.3% of non-teleworker respondents answered "none." Figure D-6 shows the percentage of respondents who thought a percentage of their work could be done at home.

Figure D-6 Percent of Work Done at Home
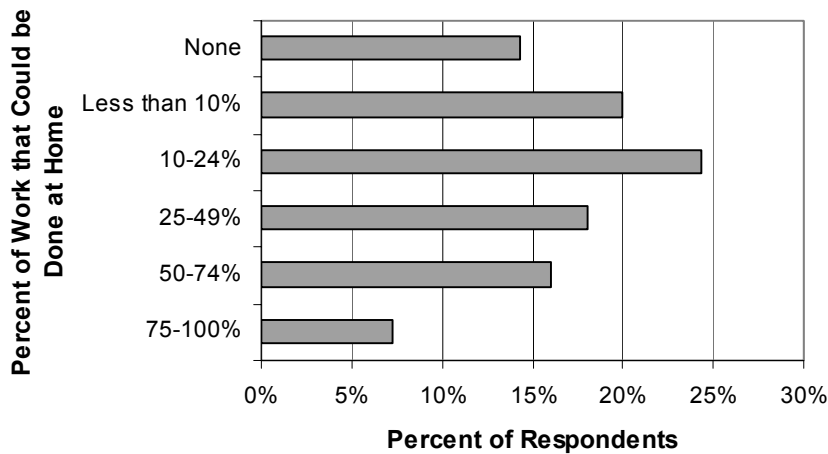
Source: Employee Telework Program Evaluation Survey

Reasons Why Respondents Don't Currently Telework (Q-8, Q-9)

Over a quarter (26.9%) of non-teleworker respondents have teleworked in the past, leaving 73.1% of respondents who have never teleworked. Table D-1 displays the top five reasons why these respondents do not telework: (1) employer does not offer telework; (2) need to work closely as a team or need to see client often; (3) tasks cannot be done at home; (4) need specific on-site equipment and (5) do not have home office equipment.

Table D-1. Non-Teleworkers' Reasons They Do Not Telework

Reasons Non-Teleworkers Do Not Telework	Percent
Employer does not offer telework	36.7%
Need to work closely as a team or need to see clients often	30.4%
Tasks cannot be done at home	28.5%
Need specific on-site equipment	26.6%
Do not have home office equipment	24.4%
Prefer office setting	16.5%
Stay more focused at workplace	16.5%
Other	9.8%
Family members will distract me from my work	9.5%
Concerns about isolation	6.3%
Do not enjoy working independently	1.3%

Source: Employee Telework Program Evaluation Survey

Note: Respondents could select more than one reason

Telework as a Work Option (Q-10)

Almost four-fifths, 78.8%, of non-teleworker respondents stated that they would telework if their employer offered it as a work option. Figure D-2 shows that the three most common reasons why non-teleworkers would telework: (1) to reduce stress and commuting costs; (2) to increase lifestyle flexibility; and (3) to increase productivity.

Table D-2. Non-Teleworkers' Reasons to Telework

Reasons Non-Teleworkers Would Choose to Telework	Percent
Reduce stress and commuting cost	54.4%
Increase lifestyle and flexibility	52.4%
Increase productivity	32.0%
Spend more time with family	23.7%
Improved work environment	17.7%
Other	9.8%

Source: Employee Telework Program Evaluation Survey

Note: Respondents could select more than one reason

Telework in Non-Teleworkers' Organizations (Q-11, Q-12)

Over half of the non-teleworker respondents (59.1%) stated that they have co-workers who currently telework. Out of those respondents, 23.9% stated there are challenges in working with teleworkers. These respondents were then asked "What are they (challenges)? The top three themes of challenges in working with teleworkers are accessibility, scheduling and maintaining work environment.

When asked what the attitude of management is toward telework at their organization, the survey results show 37.5% of non-teleworker

respondents "don't know." Figure D-7 shows the other percentages relating to the attitude of management ranging from "very positive" to "very negative."

Figure D-7. Non-Teleworkers' Attitude of Management
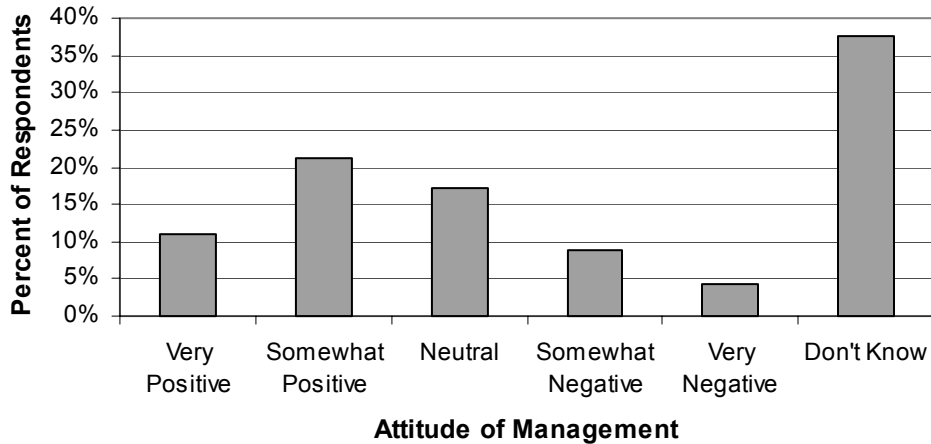
Source: Employee Telework Program Evaluation Survey

General Perceptions of Teleworkers

Fifty-two of the 376 respondents indicated that they currently telework one or more days per week. These respondents were asked to respond to sixteen survey questions specific to their experiences as teleworkers.

How Telework Was Initiated (Q-14 through Q-16)

The survey results show that 48.1% of teleworkers have a written telework agreement in place with their employers. Less than 20% (19.2%) of teleworker respondents stated that their employers approached them about telework as a work option. Instead, 63.5% indicated that they approached employers in some way to start telework. Several other respondents indicated that telework was part of the agreement when they were hired. Only 9.4% of teleworkers indicated that they started telework as a result of informational materials they received.

Telework Experience (Q-17)

The survey results show that more than three-quarters of the teleworker respondents teleworked for more than one year, and about indicated they have teleworked for more than 3 years, as shown in Table D-3.

Table D-3. Length of Time as a Teleworker

| Length of Time as a Teleworker	Count	Percent
Less than 6 months	3	5.8%
6-12 months	8	15.4%
1-3 years	14	26.9%
3 or more years	27	51.9%
Total	52	100%

Source: Employee Telework Program Evaluation Survey

Logistics of Telework (Q-18 through Q-22)

More than 90% of teleworker respondents said they work at home in their telework day. Of the remaining 10% of teleworkers, 5.8% said they work at a satellite office or location close to home, while 3.8% mentioned other places that included a combination of their home, satellite offices, their car, and client sites.

Half of the respondents (50.0%) indicated that they personally provide the equipment needed to telework, while one quarter of teleworkers (25.0%) stated their employers provide most of the equipment, and the remaining 25.0% provide the equipment in combination with their employers.

When asked about their schedules as teleworkers, more than half of the respondents (52.9%) indicated that they telework 1 day per week. Figure D-8 shows that as the number of telework day's increase, the percentage of respondents decrease. However, there is substantial amount of teleworkers (15.7%) who work 5 days a week. Although these respondents don't technically meet our definition of a teleworker, it is important to note the number of people who do work from home.

Figure D-8. The Number of Telework Days
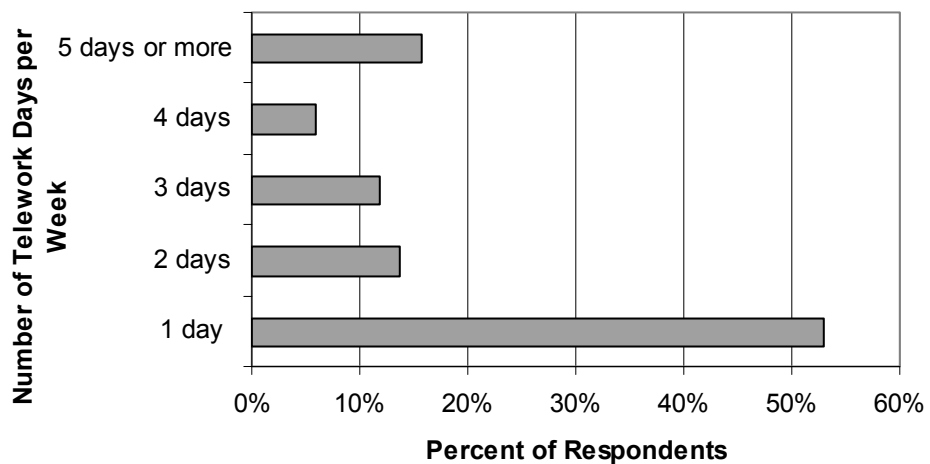
Source: Employee Telework Program Evaluation Survey

In addition, the majority of teleworkers (86.3%) stated that they have regular telework days each week. Among them, 77.3% said they have certain hours set aside so co-workers can reach them.

Slightly more than half of teleworkers (51.9%) indicated that they work on the weekends or days you would normally have off as a result of telework.

Telework Tasks and Job Responsibilities (Q-23, Q-24)

The majority of the teleworker respondents (86.5%) indicated that telework has not brought about changes in their job responsibilities. Of 13.5% of the respondents that indicated that their job responsibilities changed, several mentioned that they have been assigned more work and more responsibilities since they started telework.

As shown in Table D-4, the majority of teleworkers indicated that they perform multiple tasks in their telework days. The survey shows that writing, editing, project management, reading, emailing, and telephone calling are all very common tasks that more than 70% of the respondents do when they telework. .

Table D-4. Type of Tasks

| Type of Tasks	Count	Percent
E-mailing	51	98.1%
Telephone Calling	42	80.8%
Writing	41	78.8%
Project Management	38	73.1%
Reading	38	73.1%
Editing	37	71.2%
Other	17	32.7%
Data Entry	15	28.8%

Source: Employee Telework Program Evaluation Survey

Note: Respondents could select more than one task

Methods of Communication (Q-25)

Figure D-9 shows how teleworkers communicate with other employees and their employers on telework days. The survey results show the importance of email and telephone calls as communication methods for teleworkers.

Figure D-9. Methods of Communication
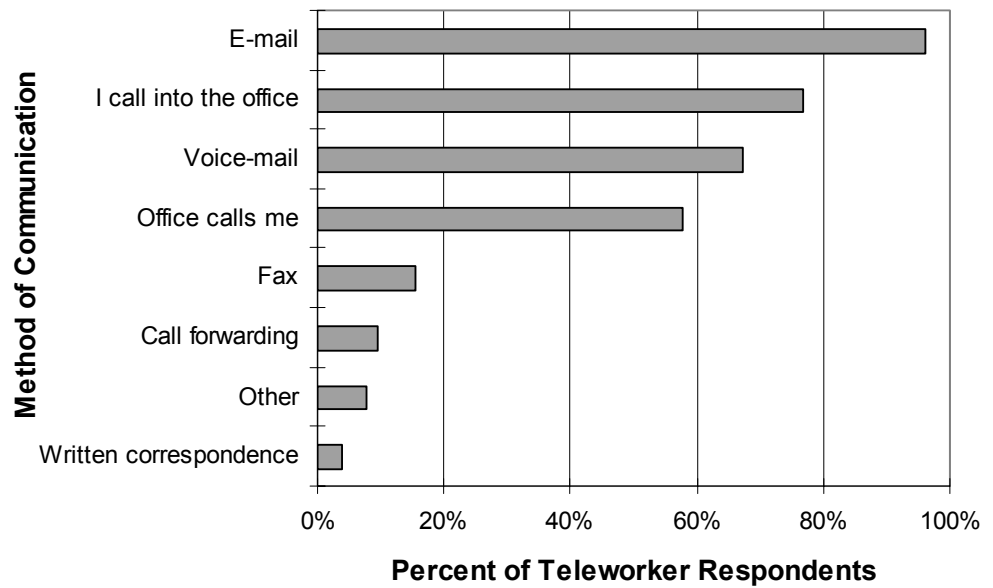
Source: Employee Telework Program Evaluation Survey

Note: Respondents could select more than one method

Attitude of Management and Co-workers (Q-26, Q-27)

The survey results show that teleworkers perceive the attitude of their employers and co-workers to be generally positive. As Figure D-10 shows, 100% of teleworker respondents said their management has either positive or neutral attitude towards telework, and more than 90% of the respondents indicated that their co-workers have a neutral or positive attitude about telework.

Figure D-10. Management and Co-workers' Attitudes Towards Telework
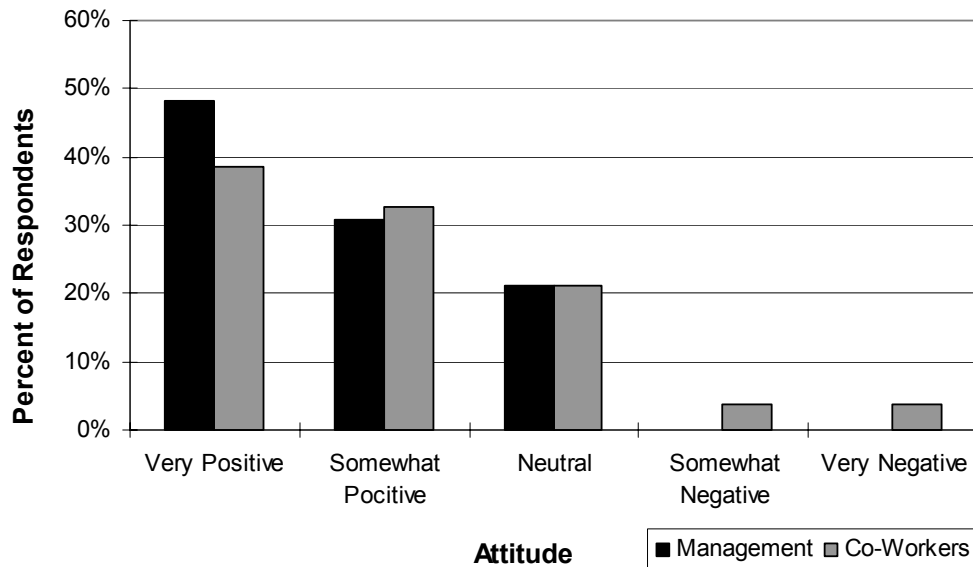
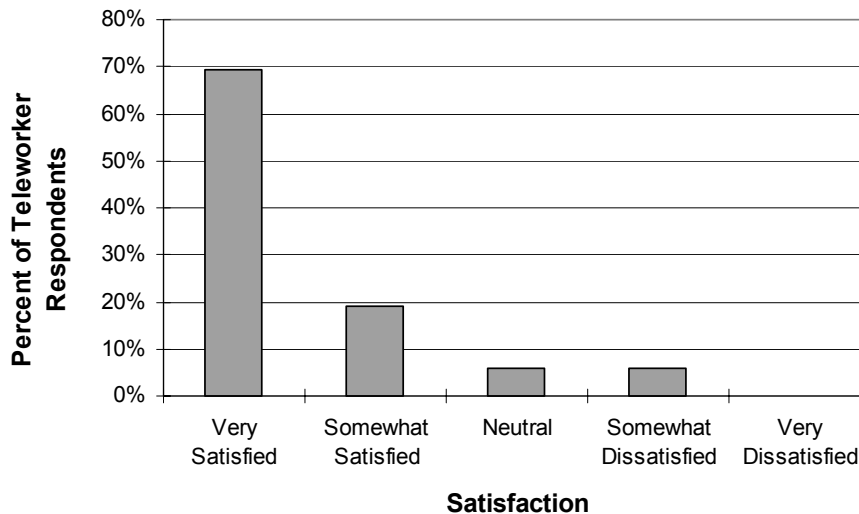Source: Employee Telework Program Evaluation Survey

Satisfaction (Q-28)

Finally, teleworkers were asked about their overall satisfaction with telework. As shown in Figure D-11, 88.4% of the respondents stated they are somewhat or very satisfied with telework, and only 5.8% indicated dissatisfaction

Figure D-11. Satisfaction with Telework

Source: Employee Telework Program Evaluation Survey

Benefits and Costs of Telework (Q-29)

Teleworker respondents were asked to give a rated response to statements regarding the benefits and costs of telework on a scale from "strongly agree" to "strongly disagree". The results are shown in below.

As Table D-5 shows that the biggest benefit teleworkers enjoy are lifestyle flexibility, increased productivity, and telework suits their job responsibilities. Generally, respondents showed agreement about the benefits of telework. Opinions about whether they have stayed in their current position because of telework were more mixed with 27.5% of respondents disagreeing.

Table D-5. Respondents' Perceptions of the Benefits of Telework

Benefit Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Telework suits my job responsibilities.	60.8%	35.3%	2.0%	2.0%	0%
As a telworker I feel more productive and have higher quality work.	49.0%	41.2%	7.8%	2.0%	0%
I have an improved work environment when I telework.	33.3%	31.4%	25.5%	7.8%	2.0%
Telework gives me greater job satisfaction and a greater sense of accomplishment.	41.2%	31.4%	15.7%	7.8%	3.9%
Telework provides more flexibility in my lifestyle.	58.0%	36.0%	4.0%	2.0%	0%
I have more responsibility andfeeling of trust as a telework employee.	27.5%	25.3%	37.4%	7.8%	2.0%
As a teleworker I save time, money, and reduce my stress level by not commuting every day.	58.0%	32.0%	4.0%	2.0%	4.0%
Telework improves my overall quality of life.	54.9%	29.4%	13.7%	2.0%	0%
Telework is part of the reason why I have stayed in this position.	31.4%	27.5%	11.8%	27.5%	2.0%
Telework helps to balance work and family.	44.0%	40.0%	12.0%	4.0%	0%
Person and professional benefits of telework outweigh its cost.	51.0%	29.4%	17.6%	2.0%	0%

Source: Employee Telework Program Evaluation Survey

The most frequently cited (45.1% agreed) cost of telework was working longer hours than the individual would if they were working at their main office (see Table D-6). By contrast, the majority of the teleworkers (84.3%) disagreed that they are concerned about the security of their information and files when they telework. Opinions were mixed on several other statements about the costs of telework. In particular, 31.4% indicate that telework makes them feel professionally or socially isolated while 53.0% disagreed with this.

Table D-6. Respondents' Perceptions of the Costs of Telework

Cost Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
On telework days, I work longer than If I was working at my main office.	15.7%	29.4%	23.5%	27.5%	3.9%
Telework disrupts the organizational culture and teamwork of my position.	3.9%	11.8%	11.8%	51.0%	21.6%
I am concerned about the security of my information and files when I telework.	3.9%	0.0%	11.8%	43.1%	41.2%
Personal start-up costs of telework were expensive.	0.0%	13.7%	23.5%	47.1%	15.7%
Telework makes me feel socially and/or professionally isolated.	9.8%	21.6%	15.7%	37.3%	15.7%
I receive less managerial support as a teleworker.	3.9%	15.7%	34.4%	38.7%	4.3%
As a teleworker I feel more tension from my co-workers.	3.9%	5.9%	29.4%	39.2%	21.6%

Source: Employee Telework Program Evaluation Survey

# Telework Assistance for Employees (Q-30 through Q-35)

The survey asked all respondents about telework assistance. The questions in this section were designed with the intent to find out more information about the telework outreach and assistance that employees have received

Telework Information Source and Assistance (Q-30 through Q-33)

The survey results show that more than half of the respondents (50.3%) were unsure about whether they had received any types of information about telework. The most frequently cited types of information respondents did receive include information from their organization about its telework policy (27.7%) and anecdotal information from conversations with co-workers or other teleworkers (33.0%). Less than 5% of respondents have received telework information from presentations, training sessions, brochures, videos, and OOE's web site.

These survey findings are not unexpected. Most of OOE's telework outreach and assistance has been focused on managers of organizations that have potential for implementing telework. It is unlikely that a teleworker within his/her organization would know where his/her manager has received information and assistance on implementing a telework program.

Figure D-12. Information Source
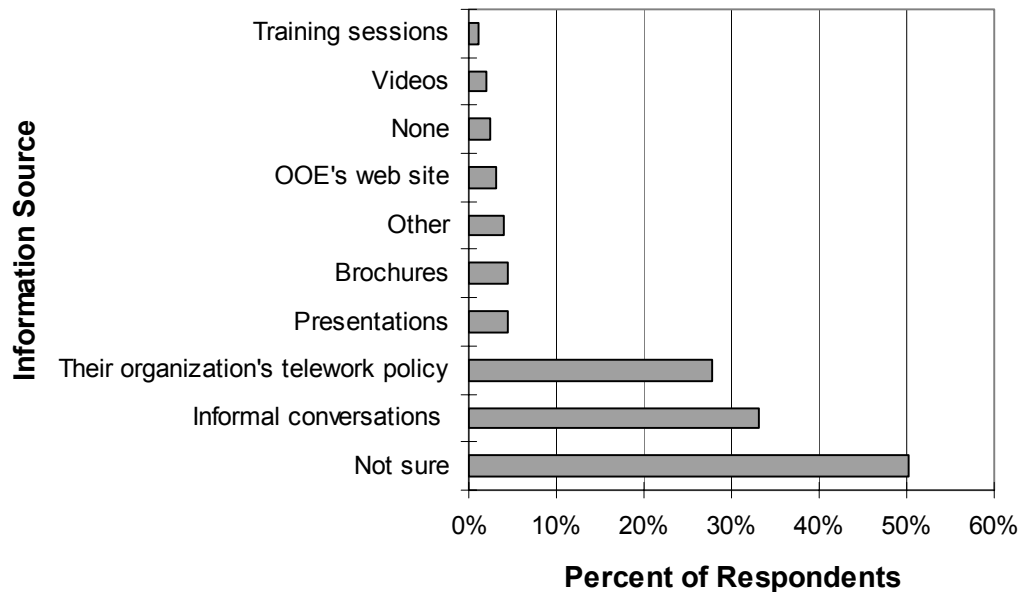
Source: Employee Telework Program Evaluation Survey

Note: Respondents could select more than one source

When asked which three types of assistance were most helpful, respondents identified informal conversations and their organization's telework policy as most helpful types of assistance as shown in Table D-7. In general, 71.5% indicated that the information and assistance they had received was very or somewhat helpful.

Table D-7. Types of Telework Assistance Cited as "Most Helpful"

Information Source	Count
Informal conversations	80
Their organization's telework policy	68
Presentations	14
Other	10
Brochures	9
OOE's web site	8
Training sessions	6
Videos	5
None	3
Not sure	1

Source: Employee Telework Program Evaluation Survey

Note: Respondents could select more than one source

The survey results show that nearly all respondents (98.4%) were unsure of the source of at least some of the telework information they

had received. As shown in Table D-8, co-workers or other teleworkers were cited as the most common source of information.

Table D-8. Sources of Telework Information

Information Provider	Percent
Not sure	98.4%
Co-worker or other teleworker	23.7%
Human Resource	15.5%
Supervisor	13.1%
DEQ	8.2%
OOE	4.1%
Other	3.8%
Internet	2.7%
TriMet	1.4%

Source: Employee Telework Program Evaluation Survey

Note: Respondents could select more than one source

Topic of Telework Information (Q-34, 35)

In general, very few respondents indicated which topics related to telework were most informative. Table D-9 shows that determining the suitability of telework for their job and communication with co-workers were the two most informative topics. When asked if there were any additional telework topics they would like to have information about, the majority of the respondents (85.5%) answered "No."

Table D-9. The Most Informative Telework Topics

Topics	Percent
Suitability of telework for their job	10.1%
Communication with co-workers	9.8%
Establishing a telework agreement	7.6%
Getting started with telework	7.1%
Data/ software security	6.8%
Communication with supervisors	6.3%
Setting a schedule for telework days	5.4%
Planning for a telework day	4.6%
Organizaing home office	3.0%
Knowing union options	2.2%
Other	2.2%

Source: Employee Telework Program Evaluation Survey

Note: Respondents could select more than one reason

Survey Instrument

The survey instrument with frequencies is presented on the following pages.

Telework Program Evaluation Survey

Background: The Oregon Office of Energy (OOE) is evaluating its Telework Program. OOE contracted the Community Planning Workshop at the University of Oregon to conduct the evaluation. Results of this survey will be used to assess the effectiveness of OOE's services and resources and make recommendations for improving telework outreach efforts.

This survey is intended to reflect the opinions of both employees who telework and those who do not telework. You should complete the survey based on your individual knowledge, opinions and experiences with telework. Please read each question carefully and answer to the best of your ability. Please take a few minutes to complete the survey no later than **May 5, 2003**. Your responses will be kept confidential.

If you have questions regarding the survey, please feel free to contact Jennifer Curkendall at the Community Planning Workshop, (541) 346-3651. Your participation is voluntary and your returned survey indicates your willingness to take part in the study. If you have questions regarding your rights as a research participant, please contact the Office of Human Subjects Compliance, 5219 University of Oregon, Eugene, OR 97403, or call (541) 346-2510.

First, we would like to ask some questions about your commute to work.

Q-1. How do you typically commute to your main place of work? (n=376) missing=4

    57.8% Single occupancy vehicle   5.9% Bike
     8.1% Carpool or rideshare   0.8% Walk
    23.9% Light rail, bus or street car   3.5% Other See Appendix D

Q-2. How far do you live from your main place of employment? (n=376) missing=4 Mean=12.57, Median=10 miles

Q-3. On average, how much time per day do you spend commuting to and from your main place of work? (n=376) missing=5 Mean=60.41, Median=50 minutes

Q-4. On average, how many hours do you work per week? (n=376) missing=8 Mean=40.47, Median=40 hours per week

Now we would like to ask some general questions about telework.

Telework, also called telecommuting, is defined as employees working at home or at a satellite office or telework center near home one or more days per week instead of commuting to the main office or place of business.

Q-5. Do you currently telework one or more days a week? (n=376) missing=8

    14.1% Yes → **Please skip to Q-14.**
    85.9% No

Q-6. Do you ever work from home (even if it is less frequently than one day per week)? (n=316) missing=7

    34.0% Yes
    66.0% No

Q-7. What percent of your work do you think could be done at home? (n=316) missing=16

    14.3% None   18.0% 25-49%
    20.0% Less than 10%   16.0% 50-74%
    24.3% 10-24%   7.3% 75-100%

Q-8.   Have you teleworked in the past? (n=316) missing=11
   26.9% Yes
   73.1% No

Q-9.   Why don't you currently telework? Check all that apply. (n=316)
   36.7% Employer does not offer telework
   24.4% Do not have home office equipment
   26.6% Need specific on-site equipment
   16.5% Prefer office setting
    9.5% Family members will distract me from my work
    6.3% Concerns about isolation
    1.3% Do not enjoy working independently
   30.4% Need to work closely as a team or need to see clients often
   28.5% Tasks cannot be done at home
   16.5% Stay more focused at workplace
    9.8% Other ___See Appendix D_____

Q-10. Would you telework if your employer offered it as a work option? (n=316) missing=24
   78.8% Yes → Why? Check all that apply. (n=231)
      32.0% Increase productivity
      54.4% Reduce stress and commuting costs
      23.7% Spend more time with family
      17.7% Improve work environment
      52.4% Increase lifestyle flexibility
       9.8% Other: _____See Appendix D_____
   21.2% No

Q-11. Do any of your co-workers telework? (n=316) missing=69
   59.1% Yes → Are there challenges in working with teleworkers? (n=247) missing=4

      23.9% Yes → What are they? _____See Appendix D_____
      76.1% No
   40.9% No

Q-12. In general what is the attitude of management at your organization toward telework?
   (n=316) missing=9

   11.1% Very positive   4.2% Very negative
   21.2% Somewhat positive   37.5% Don't know
   17.3% Neutral
    8.8% Somewhat negative

Q-13. Did you know about telework or telecommuting before this survey? (n=316) missing=19
   95.1% Yes
    4.9% No

If you currently telework, please complete the following questions, if you are not a teleworker, PLEASE SKIP TO Q-30.

Q-14. Do you have a written telework agreement in place with your employer? (n=52) missing=0
   48.1% Yes
   51.9% No
     0% Written agreement under development

Q-15. Did your employer approach you about telework? (n=52) missing=0

     19.2% Yes, my employer approached me
     63.5% No, I approached my employer
     17.3% Other: _____ See Appendix D_____

Q-16. Did you begin telework as a result of informational materials you received about telework? (n=52) missing=0

     9.6% Yes
     90.4% No

Q-17. How long have you been a teleworker? (n=52) missing=0

     5.8% 0-6 months   26.9% 1 – 3 years
     15.4% 6 – 12 months   51.9% 3 years or more

Q-18. Where do you telework? (n=52) missing=0

     90.4% At a home office
     5.8% At a satellite office or location closer to home
     3.8% Other: _____ See Appendix D_____

Q-19. Who provides most of the equipment you use to telework? (n=52) missing=0

     50.0% I provide it
     25.0% My employer provides it
     25.0% Both my employer and I provide it
     0% Other: _____ See Appendix D_____

Q-20. How many days per week do you telework? (n=52) missing=0

     52.9% 1 day per week   5.9% 4 days per week
     13.7% 2 days per week   15.7% 5 or more days per week
     11.8% 3 days per week

Q-21. Do you work on the weekends, or days you would normally have off, as a result of telework? (n=52) missing=0

     51.9% Yes
     48.1% No

Q-22. Do you generally telework on the same days each week? (n=52) missing=1

     86.3% Yes → Are certain hours set aside so co-workers can reach you?
              77.3% Yes
              22.7% No
     13.7% No

Q-23. What types of tasks do you perform on your telework days? Check all that apply. (n=52)
     78.8% Writing   73.1% Reading
     71.2% Editing   98.1% E-mailing
     73.1% Project management   80.8% Telephone calling
     28.8% Data entry   32.7% Other: See Appendix D_____

Q-24. Have your job responsibilities changed since you started to telework? (n=52) missing=0

     13.5% Yes → How have they changed?___ See Appendix D_____
     86.5% No

Q-25. How do you most often communicate with managers and co-workers on days that you telework? Check all that apply. (n=52)

76.9% I call into the office   96.2% E-mail
57.7% Office calls me   15.4% Fax
 9.6% Call forwarding   3.8% Written correspondence
67.3% Voice-mail   7.7% Other __See Appendix D_____

Q-26. In general, what is the attitude of management of your organization towards telework? (n=52) missing=0

48.1% Very positive   0% Somewhat negative
30.8% Somewhat positive   0% Very negative
21.2% Neutral

Q-27. In general what is the attitude of your co-workers toward telework? (n=52) missing=0

38.5% Very positive   3.8% Somewhat negative
32.7% Somewhat positive   3.8% Very negative
21.2% Neutral

Q-28. Overall, how satisfied are you with telework? (n=52) missing=0

69.2% Very satisfied   5.8% Somewhat dissatisfied
19.2% Somewhat satisfied   0% Very dissatisfied
 5.8% Neutral

Q-29. Please indicate your level of agreement with each of the following statements.

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Telework suits my job responsibilities.	60.8%	35.3%	2.0%	2.0%	0%
As a teleworker I feel more productive and have higher quality work.	49.0%	41.2%	7.8%	2.0%	0%
On telework days, I work longer hours than if I was working at my main office.	15.7%	29.4%	23.5%	27.5%	3.9%
I have an improved work environment when I telework.	33.3%	31.4%	25.5%	7.8%	2.0%
Telework disrupts the organizational culture and teamwork of my position.	3.9%	11.8%	11.8%	51.0%	21.6%
I am concerned about the security of my information and files when I telework.	3.9%	0%	11.8%	43.1%	41.2%
Telework gives me greater job satisfaction and a greater sense of accomplishment.	41.2%	31.4%	15.7%	7.8%	3.9%
Personal start-up costs of telework were expensive.	0%	13.7%	23.5%	47.1%	15.7%
Telework provides more flexibility in my lifestyle.	58.0%	36.0%	4.0%	2.0%	0%
I have more responsibility and a greater feeling of trust as a telework employee.	27.5%	25.3%	37.4%	7.8%	2.0%
Telework makes me feel socially and/or professionally isolated.	9.8%	21.6%	15.7%	37.3%	15.7%
As a teleworker I save time, money, and reduce my stress level by not commuting every day.	58.0%	32.0%	4.0%	2.0%	4.0%
Telework improves my overall quality of life.	54.9%	29.4%	13.7%	2.0%	0%
I receive less managerial support as a teleworker.	3.9%	15.7%	17.6%	43.1%	19.6%
Telework is part of the reason why I have stayed in this position.	31.4%	27.5%	11.8%	27.5%	2.0%
As a teleworker I feel more tension from my co-workers.	3.9%	5.9%	29.4%	39.2%	21.6%
Telework helps to balance work and family.	44.0%	40.0%	12.0%	4.0%	0%
Personal and professional benefits of telework outweigh its cost.	51.0%	29.4%	17.6%	2.0%	0%

Q-30. What types of information regarding telework have been provided to you? Check all that apply. (n=376)

   4.5% A. Presentations about telework
   1.1% B. Training sessions about telework
  27.7% C. Information from your organization about its telework policy
  33.0% D. Conversations with co-workers or other teleworkers
   3.2% E. Information from Oregon Office of Energy's telework website
   4.5% F. Brochures about telework
   1.9% G. Videos about telework
   4.0% H. Other: __See Appendix D_____
   2.4% I. None → **Please skip to Q-36**.
  50.3% J. Not sure

Q-31. From the list in Q-30, which three types of assistance were most helpful? See Appendix D
_____

Q-32. In general, how helpful was the telework information and assistance you received? (n=367) missing=216

  18.5% Very helpful
  53.0% Somewhat helpful
  16.6% Not helpful
  11.9% Not sure

Q-33. From whom did you receive telework information? Check all that apply. (n=367)

  13.1% Supervisor(s)
  15.5% Human resource department
  23.7% Co-worker(s) or other teleworkers
   4.1% Oregon Office of Energy
   1.4% TriMet

   8.2% Oregon Department of Environmental Quality (DEQ)
   2.7% Internet
   3.8% Other(s): __See Appendix D__
  98.4% Not sure

Q-34. Which topics related to telework were most informative? Check all that apply. (n=367)

  4.6% Planning for a telework day
  9.8% Communicating with co-worker(s)
  6.3% Communicating with supervisor(s)
  3.0% Organizing your home office
  5.4% Setting a schedule for your telework day(s)
  6.8% Addressing data/software security

   7.6% Establishing a telework agreement with your supervisor
   7.1% Getting started with telework
   2.2% Knowing union options
  10.1% Determining suitability of telework for your job
   2.2% Other: __See Appendix D__

Q-35. Are there other telework topics you would like to have additional information on? (n=367) missing=216

  14.5% Yes → Please specify: __See Appendix D_____
  85.5% No

Q-36. What is your age? (n=367) missing=26   Mean=40.84, Median=41.0 years

Gender? (n=367) missing= 24   63.4% Female   36.6% Male

Q-37. What is the zip code for your home? _____

Q-38. How many individuals ages 18 or over are there in your household? (n=367)   Mean=1.95, Median=2

Q-39. How many individuals under the age of 18 are there in your household? (n=367)   Mean=.57, Median=0

Q-40. What was your individual income in 2002? (n=367) missing=50

3.4% $0-19,999	17.2% $50,000-59,999
19.9% $20,000-29,999	18.4% $60,000-69,999
18.7% $30,000-39,999	3.7% $70,000-79,999
17.2% $40,000-49,999	9.5% $80,000+

Q-41. What is the highest level of education you have completed? (n=367) missing=20

0% Some high school	7.3% Associate's degree
6.5% High school diploma or equivalent	36.2% Bachelor's degree
2.0% Technical or vocational training	23.9% Advanced college degree
24.4% Some college	

Q-42. Please indicate the type of industry or profession that most accurately describes the organization you work for. (n=367) missing=11

0% Agriculture, Forestry, Fishing	0% Wood Products Manufacturing
2.2% Transportation, Communication, Utilities	0% Other Manufacturing
	0% Retail Trade
0% Construction	0% Eating and Drinking Establishment
39.2% Finance, Insurance, Real Estate	0.3% Wholesale Trade
3.0% Business Services	42.2% Government Agencies
1.1% Health Services	2.5% Non-profit Organization
0.3% Other Services	9.3% Other: See Appendix D

Q-43. Please indicate which of the following best describes your occupation. (n=367) missing=13

22.0% Administrative/Clerical	11.6% Middle Management
33.6% Professional	1.4% Senior Management
5.5% Technical/Assembler	11.3% Other: See Appendix D
4.7% Sales	1.4% Not Sure
8.5% Project Management	

Q-44. Please share any additional comments you have in the space below.

We sincerely value your responses and thank you for taking the time to fill out this survey.
Please mail your answers back in the postage-paid envelope provided.

Transcript of Employee Survey Comments

The Employee Telework survey offered many opportunities for respondents to provide written comments to supplement their answers. A transcription of all responses to open-ended questions follows. The comments are presented organized by each open-ended survey questions. Individual comments and comment categories are not presented in any specific order.

Q-1 How do you typically commute to your main place of work? Other category:

- also by transit when I don't have meetings.
- telecommute
- Work from Home
- also walk / run 1/2 way to work
- I have used bus and light rail in the past and have purchased a May Pass to begin again.
- bus to work; rideshare home
- Bus and Motorcycle
- Drive to bus stop.
- MAX
- Car & Train
- bike 1/2 year; bus 1/2 year
- alternate between carpool and bus
- half carpool and half single
- Vanpool
- 1/2 park & ride; 1/2 rideshare
- Dropped off by family member

Q-9 Why don't you currently telework? Other Comments:

Not Available

- We do have telework, my position currently not included
- My position is not available to telework though it could be done more then 50% of the time fairly easily.
- Option has never come up.
- not available for my position

Never Asked

- have not requested
- I haven't asked

- Never asked
- Have not proposed to my manager
- haven't got around to setting it up
- Haven't asked, not sure if employer would agree with it in my position.
- Employer might offer, but I haven't asked

Management Does Not Encourage or Allow

- Employer does not "favor" telework requests
- not encouraged by employer
- not encouraged by employer
- MANAGER DOES NOT ALLOW IT
- Management - team want me accessible
- Does not seem to be encouraged.
- employer doesn't encourage it
- Employer discourages telework, because of the perceived need for team work.
- Am in support position and employer will not allow support telework
- Employer seems to put up little blockages or goes mute on the topic.
- Employer does not trust me out of his sight
- not encouraged
- direct supervisor won't allow
- boss doesn't like the idea
- Perception of not working (on vacation, etc.) if not at work
- Managers haven't offered as an option though it is done in the overall organization

Need Equipment or File at Office

- Numerous Resources Available in the Office
- access to some systems
- I'm in banking, I handle a lot of sensitive personal information
- I wouldn't have the information from the files that I need to do my work.
- database access would be needed.

Type of Tasks

- numerous small volume tasks
- one job is fine the second can not be done at home.
- cannot do my job from home
- Difficulty taking enough work home, not enough variability in type of work
- changed positions this one requires work be done at office

Need to be Available

- Clients expect us to be there when they need us. Not everything can be on an appointment basis.

- NO GOOD REASON, BUT I DO NEED TO ATTEND MEETINGS, AND ASSIST PERSONNEL AT TIMES.
- Direct supervisory role is hard to do by phone
- need to observe my staff and the procedures that are in place
- customer service by phone/incoming calls
- I'm the Receptionist
- Unable to provide phone support from home
- manage many others at work
- I supervise
- Need to be available in person most every day
- New job as manager of 25 people and I need to establish a presence in the office

Technical/ Security Issues

- To many security issues
- Software version incompatibility
- Computer connections not reliable
- Getting access to computer files at home does not appear to be easy or reliable, although I have not tried too hard to access work files. I would have to use my own internet service. I have a pretty bare bones service and would probably have to pay more
- need access to internal network or VPN
- Do not have access to servers behind the firewall
- no technical expertise for the technical problems that arise on equipment and programs
- Need access to work documents electronically this is possible but employer doesn't want to provide network access to people at home. We must carry documents on a floppy disk or email documents to self in order to do this.

Work and Home Balance

- privacy
- have trouble keeping work/home life separate
- Work invasion on personal and home life.
- don't want to connect home computer to work computer

Live in Washington

- Live in another state and was told it was not an option for insurance reasons.
- Live in Washington
- Our work insurance does not cover those of us who are out of state such as Vancouver so we are not allowed to telework at all they give us no choice.
- Not authorized. I live in Vancouver, Washington

Other

- current schedule not conducive

- Habit
- Not sure employer offers telework. My home software is older versions.
- Right now it doesn't fit in with my childcare arrangement. I already commute most of the way to work to get my child to daycare. But once she starts school, I would love to telework.
- I live at the wrong phone number
- Most days, although I could do most of my work from home, there are a few tasks that need to be perform at the work. Also, I find that I need the records at work to do much of my computer work, and it would require additional planning to have all the appropriate records at home for a days project.
- Prepping for work to do at home, plus co-workers, others need me at work. Also, the next day is lots of catch up from being gone
- Don't qualify to do it yet!
- Have not tried it on a regular basis
- live close to office
- Request submitted hoping for 1-2 days per week
- hadn't thought of it

Q-10 Would you telework if your employer offered it as a work option? Yes, why? Other reasons:

Saving Time and Cost/ Reduce Stress

- Reduce overhead & eliminate commuting time & cost.
- Less driving time
- general savings in time
- wouldn't have to deal with parking at work
- less commuting time
- REDUCE STRESS; OFFICE FRICTION

Environmental Concern

- reduce traffic and air pollution
- Better for the environment.

Better Work Environment and Productivity

- Less distractions.
- I think I would feel more connected to my real work and less distracted by office politics.
- Some tasks that I now perform because I am skilled, I don't get paid for but am expected to do as part of work group. At home all my time could be spent on my own duties.
- No interruptions, distractions
- Fewer noise & distractions for reading reports
- concentrate on special projects

- It would make it easier to focus on the reports that need to be completed.
- More ability to concentrate at home on writing projects less or no interruptions.

Time Flexibility

- I am most productive at 7:00 PM - outside of core hours.
- Work in my nightgown.
- Able to start work earlier & work later if needed.
- I currently work a reduced schedule and am in the office 4 days. However, my workload requires that I often work several hours on my own time. If my employer offered telework, I would return to a 100% schedule, in the office 4 days plus time on the weekend.

Mix of Above

- utilize time, comfortable atmosphere
- environment; cost of gas;
- save commuting time; some work can be done more efficiently/productively without interruptions (I get a lot of interruptions at the office)
- Saves time, less travel, more environmental friendly.
- less damage by pollution to environment; less wear-and-tear on my vehicle; safer, natural lighting (no fluorescents; more windows)

Other

- My employer does offer it as an option when appropriate
- Need to work closely with team member.
- Need to work closely with team member.
- If I had small children at home.
- less face to face contact with members
- I wouldn't want to 100% though, I would a little

Q-11 Are there challenges in working with teleworkers? Yes, what are they?

Accessibility

- Communication can be difficult
- Hard to get in contact with
- Unable to contact them for site investigations. Unable to contact the people who really should not telecommute. Does not happen often and I am usually able to work around them not being here.
- No face to face contact. Can be more difficult to reach, and they do not always have necessary background materials at home.
- Yes other co-workers telecommute but not in my particular section. I can get a hold of them if I need to but it seems to take more time then if they were right here.
- In the past, some teleworkers are difficult to contact when teleworking.

- Not readily available for questions and work assignments.
- Availability
- Availability
- Limited communication
- Communication and accessibility
- Not so easy to reach them.
- getting immediate feedback/information as needed
- Only that sometimes they are difficult to reach
- At times they are more difficult to contact. Generally, not a significant problem.
- Occasionally need to show them something or have a general discussion with them that works best in person. Very few people telecommute at my site.
- They are sometimes hard to reach
- Not readily available, especially if telecommuter has only one phone line and is working on-line.
- Can't talk face to face and discuss options that need to be decided visually.
- have been delays in communications.
- not always easily accessible
- Sometimes hard to reach them on the phone
- Availability for meetings.
- Unavailable to meet. Need resources from them and they are unable to provide.
- It can be more challenging getting a hold of that person when they are not in their office here at work.
- Accessibility in tight timeline situations
- General communications; reviewing work
- While they can respond through email, sometimes face to face is needed.
- remembering their schedule, or knowing what it is if it flex's
- Difficult to get an answer to a pressing issue

Scheduling
- scheduling meetings
- Planning ahead to discuss issues in person.
- Coordinating meetings
- need to plan for and schedule consultation time necessary for mind-share on projects;
- Learning everyone's schedules; when they are available at the office, when not
- You don't know when they will be in the office vs. at home working. Often times when they are in the office, they will out-of-the-blue state that they are going home. This makes it hard to assistance from those co-workers. If they had set schedules, or at least announced the hours that will be at work/home a day prior, it would be very helpful.
- constraint on scheduling meetings

Hesitate to Call

- People tend not to want to call someone who is teleworking. This may benefit the teleworker, but negatively impact the rest of the office. This could be remedied with some simple awareness training and I think teleworkers should be required to check-in with everyone in the morning.
- I hesitate to call them when they are at home. When they telework, they are usually equipped for working on a specific project. When I call tem about something else, they don't have what they need to respond to me, and end up putting it off until they get back in the office.

Maintaining Work Environment

- Tendency of other staff to act as if telecommuter are "not at work" (reluctant to call someone at home. some telecommuters have a hard time being productive spend a lot of time maintaining the work environment (computer setup, etc) instead of their job.
- They do not always have ready access to documents needed by those in the office
- I am a network admin. We can only offer limited support for staff home computers systems because of the variety of operating systems, software & hardware. We also do not purchase software licenses for at home use so cannot provide software to telecommuters, and some of the packages are expensive. Most of the problems I see with telecommuting is technical. Once the person has access to business resources, they can do their work pretty much like they are in their offices.
- systems availability
- They are not subject to the same work environment. Some teleworkers slack off when they work off site
- Meetings, maintaining equipment at their location
- Insuring that they are connected with the team. Monitoring work. Hiring individuals with good work ethics who can work independently.
- only in cases where teleworkers are at home w/ young children ....phone communication makes it clear that work isn't being performed away from family activities

Mix of Above

- Physical absence makes it somewhat harder to contact. Informal meetings are put off until they return or are cancelled.
- Contact time, lack of bonding, scheduling meetings
- Even though they are available via phone you know they are telecommuting to concentrate more fully so if you're calling them all the time you know you are disrupting them. Multiple phone lines require to work on computer and have a phone available at the same time.
- Sometimes harder to get a hold of them. Seems like you don't know as much about their schedule or work.
- It seems that they aren't as accessible even though they are just an email or phone call away. Not sure which hours they are telecommuting...don't want to bug them if they aren't on the clock.
- Meetings need to be more planned - more difficult to just drop by for information; 2. Lose face to face contact on issues; 3. Lose feed back / ideas from casual (water cooler

conversations) - communications tend to come from staff outside the work environment.

- Not available and teleworking is just a code for hanging out with their kids, so the kids distract them from working
- often unavailable for immediate assistance; decreased productivity by "teleworkers"

Other

- I haven't encountered any problems yet.
- diff't group
- Finding enough work to do at home that fills a full work day.
- ONLY OCCASIONAL WORK AT HOME BY SOME DATA ENTRY PERSONNEL.
- Staying focused, limited access to files, state owned transportation to clients nonexistent.
- Boss only
- No, there are not any challenges with this
- Scheduling of team meetings - given flexible schedules, and access by our "customer" base.

Q-15 Did your employer approach you about telework? Other comments:

- I was hired working from my home office and was kept there
- No
- Job entails driving from site to site repairing/install/upgrade computers.
- not specifically "telework"
- This was part of the agreement when I started
- No, it doesn't work for my position.
- Our company was a virtual company until a few years ago.
- job has to be done here at the office as NWR receptionist
- communicated during hiring initiation
- Neither, it has not been discussed
- The only way my first job is done.
- it is not an option
- Mutual agreement
- I just do what is needed from home, with my bosses approval.
- I am the manager - originally the company was built up to seven staff working out of their homes.

Q-18 Where do you telework? Other locations:

- Home or Client Sites
- My car is my office, my supply depot, and necessary to perform my job.
- At home and satellite offices within the region

- I don't telework
- at home

Q-23 What types of tasks do you perform on your telework days? Other tasks:

- meetings via conference call
- Researching
- Consulting, Network Design
- Repair of computers. Laptops to high end networks.
- Proposals
- computer programming
- Engineering analysis
- Routing material for approval, designing materials
- Network Configurations
- Environmental complaint coordination with agencies
- Application maintenance and development
- Preparing for speaking engagements, brainstorming for new projects
- Programming
- Plan Review
- My Job requirement
- mostly the drafting of permits.
- Database design, programming
- reports, special projects
- computer programming

Q-24 Have you job responsibilities changed since you started to telework? Yes, how have they changed?

- I work more than I ever have. I also have to do more that I've had to in the past. We no longer have secretarial support.
- I am continually increasing my level of skills so that the product line that I maintain is increasing in complexity and importance.
- I changed jobs within the agency
- More work is being put on my list, therefore more work is being prioritized and therefore not getting done
- different job
- I have increased my hours and job responsibility.
- Originally I was a remote section manager. Now not a manager

Q-30   What types of information regarding telework have been provided to you? Other:

- training videos available
- nothing formal
- option to work virtual has been available for at least 10 years at our company so we have a formal written policy in procedures manual
- education
- Experiencing it refining how to do it most efficiently
- friends who work in insurance or mortgage fields
- usenet newsgroups
- Emails explaining that it was available
- how to log into our email system via internet
- LAN and IT information
- My job included promoting telework to other area employers, therefore I was already familiar with the concept
- IT staff
- my own research on the web
- Guidance on remote computer network access
- Management support and encouragement
- Discussion with previous supervisor

Q-33   From whom did you receive telework information? Other:

- IT Dept.
- Agency trip reduction coordinator
- we have received info from State in the past
- textbooks
- [Company]/Commercial Loan Servicing
- network administrators
- IS personnel
- Information technology staff
- At a staff meeting
- Intranet
- AFSCME (Union Agreement)
- I work in IT and set up our teleworkers.
- executive office
- previous supervisors, different management now
- Information Technology staff
- other friends who do it

Q-34   Which topics related to telework were most informative? Other topics:

- none of the above
- how to log onto email via the internet
- I don't remember it was a long time ago
- I don't think this was covered, but the biggest obstacle to teleworking is skepticism on the part of one's manager. The managers all belong to a different paradigm. It is a little scary that one might be viewed as someone who doesn't take their work seriously if I put in a request to telework.
- Only new about the policy and the form and the union article
- accessing computer resources
- Knowing it is available
- not really applicable, very little information available
- none of the above
- setting up email access-had to learn on my own

Q-35   Are there other telework topics you would like to have additional information on? Yes, please specify:

- vpn
- Staying Connected to the Office/Co-Workers
- I've made several requests to begin. I've had no response.
- policy vs. management negativity
- [State Agency name] specifically needs to find a better way for employees to connect with email from home. The current system is cumbersome!
- How could I set up to telework
- keeping work/home life separate. Dealing with non-productive days (we all have them in the office, somehow it's more upsetting to have one at home!)
- I'd like to find out if my paranoia about how managers perceive teleworking is valid or not.
- some of the topics listed above would be helpful but were not offered
- When will employees who don't live in the state they work in be able to tele-work?
- union options? data/software security
- All of the above
- suitability, average hours per week
- all of it.
- How do I do it/limits
- how to get approved to telework
- all items in Q-34
- all of the above
- Since we haven't received most of above, any additional info is helpful
- How to get a company started on telework programs

Q-42 Please indicate the type of industry or profession that most accurately describe the organization you work for. Other:

- Hi Tech
- Information Technology Consulting
- PC services
- Computers and financial services products
- High tech support
- IT Industry
- Computer Sales to Banks
- Engineering
- professional engineer
- Engineering Consulting
- Banking
- Lender at Bank
- Banking
- banking
- Software development
- Art Publishing
- publisher
- Environmental
- Natural Resource Agency
- Technology
- Environmental Quality
- State Agency
- [State Agency]
- Call Center Representative for a financial institution
- Credit Union
- Credit Union
- credit union ... financial but non-profit
- banking/credit union
- credit union
- Zoo
- Convention Center
- Education/Informal
- Zoo
- Information Systems Development / Sales (Health care)
- Theater & Entertainment
- Arts org

Q-43 Please indicate which of the following best describes your occupation. Other occupations:

- EMERGENCY SERVICES DISPATCHER
- PROPERTY MANAGEMENT
- customer service
- Banking
- customer service/research
- Technical/ IT
- Customer Service.
- commercial credit card customer service
- Training
- software engineer
- fiscal analyst
- research scientist
- Environmental Investigations
- Program coordinator
- PROGRAMMER/ SYSTEM ANALYST
- scientist
- Program Manager (no staff)
- Network & Web Administrator
- System Analyst
- Activist
- Chemist
- technical/scientific
- Customer Service Rep
- customer service
- Web Developer
- customer service
- collections
- Security & Facilities
- Complaint Investigation
- Loan Officer
- Software Engineer
- finance
- Supervisor
- Research & Project Specialist
- customer service
- Human Resources
- IT
- DOCUMENT PREPARATION
- Financial Analyst/Asst. Supervisor

- I am both "professional" and "middle management"
- GIS Analyst
- graphics technician
- customer/employee service

Q-44   Please share any additional comments you have in the space below.

- I really appreciate the support of my supervisor in my effort to work towards a telework option for at least one day per week (for now). I took this position with the company because I understood that they did offer this type of opportunity where applicable. Due to the nature of the work that I do, I truly believe that I can be more productive away from the distractions of the office for at least 50% of my typical work week. One drawback will be that I will not have a photocopier at my home office, and I also apparently will not have full access to all my Outlook files (personal folders) from my telework location (which is very unfortunate it's not bad enough to eliminate this option all together, just limits how much can be done).
- In question #34, I didn't respond about which elements were most informative because I'm not interested in telecommuting. I prefer working in the office environment, being close to clients an co-workers and I don't want to rearrange my house to accommodate telecommuting and remove the distractions.
- Because of my project management role, I find it difficult to work from home. Also my telecommute day is Friday, and if the work piles up all week I find I cannot work from home on that day and I end up coming into the office.
- I am A fields service technician in the computer industry. Telework is not an option.
- Its good for home life IF you are home, bad for work life IF you are home.
- I would love to have a job where I could bike into work or use mass transit on some days. I have to maintain a car to be used everyday. I cover about 1/2 the state of Oregon on into Washington. Realistically I cannot afford to quit and change jobs.
- My neighbor Telecommutes, and from what I've seen if I was in Management for a business or organization I would be very skeptical. Also from what I've seen with the one person in our office that Telecommutes same concern.
- I have been with my company 17 years due to the flexibility of telework. It was difficult to manage home/work until telework was supported by my company. However, some coworkers frown on this and make comments that they seem to think I never work. AND yet I make my quota each year and they don't.
- Some of the personal questions you ask are not appropriate.
- I think it would be wonderful to be able to telecommunicate.
- I would love the opportunity to telework. I wish that my employer was more flexible and accommodating to individuals with families.
- I wish our employer offered telecommuting, but they don't even offer flexible hours or casual dress for back office. Chances of working from home even though most of our work could be done that way is slim to none!
- More people would telework if the Agency was more proactive.
- I work 3 and 1/2 days per week. I telecommute for my half day. It's nice to not have to spend and hour+ commuting, plus getting ready to go to the office to only work 4

hours. I do go in when I need to for a meeting or because I will need to use resources at the office that I don't have at home. So I actually haven't been telecommuting too much lately. When I do I tend to get more done, fewer interruptions. It will be especially helpful during the summer, when school is out, as I will have some flexibility around when I do those 4 hours (i.e. could be either Wed or Friday).

- I love having the option of teleworking on an as-needed basis. As a program coordinator my tasks change a lot from week to week. I don't always have the right tasks to telework. I'm concerned about colleagues who telework, but don't seem to have enough telework tasks to fill their day. Because I only work 30 hours a week, and have a heavy work load, I've found that coming into the office is overall less stressful than trying to plan around a telework day. I love that my employer is flexible. I sometimes work part of the day at home and part of the day at the office. I think that flexible hours and telework are great ways of keeping employee moral high.

- This is a great survey. I will be curious to see the results. I work with XXX at the [State Agency] and am a supporter and promoter of teleworking.

- I have a master's degree. I don't know if that the same as the Advanced/Professional degree under the education section. I think telecommuting is a great idea. My husband currently works out of the house and is using all the electronic hook-up capacity we have at home for this. I can't see how I can do this anyway. My work requires use of files and binders of reports that would just not be possible (I don't think) to take back and forth from home to work.

- I would like to receive information on the topics you list above.Q-34 Without overkill, I would like to see teleworkers do a little more checking in with fellow employees in the morning, coming back from break. after lunch. This is when we see people at work and know they are again available. With flex schedules it can be confusing who is on a flex day and who is working but not in the office...who is actually available. I think that teleworking can be very negative of office morale when you can't see any work product. cn

- As a manager, I do not like having employees telecommute. I do not think that this is a productive, focused use of time. Assignments seem to take twice as long to complete.

- My responses only apply to my particular situation of teleworking one day per week. Teleworking more than one day per week would be disruptive to the work unit, and probably cause me to feel professionally isolated.

- I manage a program that requires very little interaction with the agency staff. Any Oregon taxpayer would have to be able to contact me by telephone and I would have to manage long distance telephone calls and mailings. I spend the majority of time on the computer.

- When computer administration gets to be more reliable from a remote location over the internet for a reasonable price then I might be interested.

- Combined with flex time, telecommuting can provide more schedule flexibility for family matters, career advancement (school, training etc) and personal growth....

- I understand that there is software that will allow me to connect my home computer to my work computer, but at the time I tried telecommuting, several co-workers told me they had experienced home computer crashes while attempting to install the software. Technical assistance was available, but "iffy" because configurations of home computers vary so much. I used telecommuting only for a special project, carrying

floppy disks home from the office. I had no problem keeping a schedule or getting the work accomplished.

- I am much more productive in my home office than I am at our regional sales office. When I need to discuss issues I make a point to go into the office; we have plenty of opportunity to dialogue.

- I think telecommuting is great. I should practice it more often

- Telework does not suit my position description and isn't even a consideration.

- I think telework is ok for someone who has a job where they can work from home administrative/clerical you cannot telework it does not permit you to do that.

- is good

- I live sufficiently close to work to walk. I also have a home situation that is not conducive to productive daytime work at home, so telecommuting is not a reasonable alternative for me. HOWEVER, even though I work for a governmental agency the SHOULD do everything possible to encourage alternatives to commuting by motor vehicle, human nature being what it is, my manager (not the agency) has his own personal issues that conflict with telecommuting (he trusts very few people).

- The flexibility I achieve by telecommuting has increased the quality of life for me and my family. The stress related to driving to work during peak traffic has been eliminated.

- Telecommuting is not appropriate for my work, since members' personal and financial information would have to be transported. Telecommuting would create security issues.

- If offered the chance to work at home, I would love it. I definitely think I could do my work from home.

- Our employer does allow some workers to telework, but doe not encourage other workers to explore whether or not their job would be suitable.

- I think teleworking should NOT be an option for people whose job is dealing with people all day, such as human resources, receptionists. Some of the people who have "teleworked" at my place of work REALLY had NO business being allowed to use that option. How can someone in "personnel" be effective at teleworking? However, people who need to get a lot of reading or writing done would certainly be justified in teleworking, my opinion.

- I enjoy TC. I think having a strong rapport with my manager and sound credibility with my colleagues makes it possible. I would not recommend it for new hires.

- Teleworking is a great alternative but our organization (the IT department specifically) does not offer it as an official option. Equipment and connectivity is provided but it is intended for after-hours and weekend support. Co-workers who are set up to telework (once again, for after-hours and weekend support,) will without advance notice work from home for the day, or come into work but leave midway through the day to "work from home". The lack of a set schedule, or pre-announced "office vs. home" hours creates frustration for co-workers who are at work and need to meet with the co-worker.

- I don't know if telecommuting has ever been an option for the type of work we do, but there is a lot of in office interaction and involvement of supervisors and others in certain decisions that are made here. I don't know that telecommuting would suit this position. Overall, I find the idea of telecommuting very appealing, but suited to only

certain types of work. Data entry would be the perfect position for a work at home situation, for example.

- Since I am the main receptionist in our office, there would be no chance (or reason) to telework.

- I wish [Company Name] offered this type of working environment. When I have a family I know this would be a huge help with finances and allow me to still keep my employment at [Company Name].

- Telecommuting is effective in certain occupations. In my case it is less stressful to avoid 2 hours of commute and spend more uninterrupted time working on projects. In many cases, it is hard for old schooled employees to think negative about telecommuting. I would like to see this change and become more of a norm. As the I205 and I5 continues to be more congested, I would hate to give up 3-4 hours commuting to work everyday to drive 70 miles. At this time, it takes an hour to 1.5 hour to get from Oregon City to Beaverton/Aloha depending on the weather and traffic conditions.

- I would like more training, encouragement and support from management for telecommuting.

- The most difficult issue in getting started with telecommuting is establishing a connection with my home computer and with the state's computer network. I received very little computer support from work to get the connection working probably so I had assess to the E drive at work.

- There is a subtle or not-so-subtle depending on the supervisor, difference between having a workplace policy "allowing" telecommuting, and a management team that "supports" telecommuting. When I was telecommuting I was caught in that catch-22 where the workplace policy allowed telecommuting, but many managers, including my own, did not support it. Hence, I always felt uncomfortable on my telecommuting days, like I had to somehow overachieve. That stress over rode any benefits I was accruing from working at home. I hope that this is a situation you can address further in working with employers.

- Survey did not really provide for teleworkers with flex-time or on an as-needed basis such as for project development. For Q-3, the actual answer is that my commute from home to work is 25 minutes, however with daycare drop off my total commute time is 40 minutes. I telecommute at my discretion, that may be one day a month, or if I am doing some project development I may work from home three days in one week. I find that during development phases I am much more productive working from home where I can dive into a project and work uninterrupted. The one issue I have is with those who telecommute but do not place their children in daycare. There is no way I could be productive or efficient if my child was at home. I question those that say they can.

- I am very happy that I have some flex in my schedule. When I was sick last week I was able to work from home for a few hours and complete some projects that would otherwise not have been finished.

- Would love to work from home. But didn't know enough about it to approach with employer.

- I am currently set up to telecommute - my employer was very helpful and supportive, but have not made the transition.

- Telecommuting from home provided challenges my IS staff wasn't up to handling even with my help. Ended up moving to regional office where challenges easer to meet. Still telecommute on evenings and weekends.

- I would telecommute if it were an option for my position.

- Telecommuting is a crock, and I would not allow it as a general matter. It's just a way to babysit kids; I've never had a colleague that was available while "telecommuting" but I have had to try to deal with an alleged telecommuter who was "working" while his child yelled for lunch and his television raged in the background.

- I both job-share and telework. I share my 40/hour a week position with another professional. Due to this arrangement, telework is essential for us to communicate and share information when one or the other of us is not in the office.

- I work for a planning organization in transportation planning. To my knowledge my employer does not have a telework policy. It appears to be up to the supervisor and largely not encouraged. It is important to get the employers on board promoting (or at least supporting) these programs.

- I would very much like to work from home and believe I could do as good a job or better from a home office. I am a graphic designer and spend most of my time alone at my computer. I would like the management of the [Regional Facility name] to be encouraged to let unique positions like mine telecommute two or three days a week. It would also be helpful if they would provide equipment, however I am even willing to provide my own for the opportunity to work from home.

- The agency's mission and philosophy is positive to telework, however, in reality it is impractical on a day to day basis. Exceptions can and have been made for individual days here or there if a legitimate reason exists.

- Company founded in 1991 - until Jan 2001, all staff worked out of their home (7 people max). However, found that office important to create team environment and also to better interchange ideas in the software development role. Also found that technology is important and we could afford better tools when centralized (telephone, servers etc.)

- Teleworking is a great idea, as long as goals are made clear and followed through.

Employee Email Questionnaire Responses

At the end of the online employee survey, participants were invited to participate in a focus group meeting about telework issues. Twenty-two employees submitted their contact information for these meetings. CPW was unable to schedule the meetings due to participants schedules. In place of the focus groups, CPW sent an email to twenty-one of these employees (one indicated she was no longer interested in participating) to explore telework issues from employees' perspectives. In total, CPW received 17 responses as are presented below.

While this questionnaire permitted us to gather the opinions of 17 different employees in the Portland area, substituting this email questionnaire for focus group discussions presents some limitations. Using an electronic questionnaire such as this does not provide the opportunity for discussion between participants and/or the facilitators. In addition, many responses were quite brief, and we were not able to ask "probing" questions to explore respondents

Participants' Responses

Participants represent seven different employers in the Portland area. Following is a list of the type of industry in which each participant is employed.

Participant 1: State Agency

Participant 2: State Agency

Participant 3: Large Financial Institution

Participant 4: Large Financial Institution

Participant 5: Large Financial Institution

Participant 6: Large Financial Institution

Participant 7: Technology Services Company #1

Participant 8: Large Financial Institution

Participant 9: Credit Union

Participant 10: Regional Government Agency

Participant 11: State Agency

Participant 12: Technology Services Company #2

Participant 13: Small State Agency

Participant 14: State Agency

Participant 15: Credit Union

Participant 16: State Agency

Participant 17: Regional Government Agency

Question 1: If you do not currently telework, would you be interested in telework? What would you need for this to happen? If you do telework, what did it take for you to start telework?

Participant 1: I telework on an as needed/desired basis. [State Agency name] has a telework policy and I just needed to demonstrate that my work performance was satisfactory and that I had work that was appropriate to do at home. When I telework I have to provide a list of accomplishments to my boss at the end of the day.

Participant 2: Yes [would be interested in telework]. Support from management, DSL or second phone line at home.

Participant 3: The main reason I do not currently telework is that I cannot get access to the computer system I need in order to do EVERYTHING at home. I can still save documents to my hard drive and take my laptop home but I am limited by not having access to all of the systems I am currently using.

Participant 4: I do currently telework.

Participant 5: Yes, I'd be interested in teleworking as an option, although it's not a high priority for me. I believe that the infrastructure is already there for me to do so, and I know my own manager is generally supportive; it would mainly be a matter of negotiating new routines with the rest of my team for the days I'm teleworking. Other members of my team telework smoothly, so I wouldn't expect it to be a problem.

Participant 6: Yes I would like to telework. I would need programs access from my home computer, etc.

Participant 7: Current telework

Participant 8: No I do not telework. Yes I would like to be able to telework. I live far from work/town it would be nice to be able to work from home. I'm not sure what I would need for this to happen.

Participant 9: I would be interested in teleworking part-time (perhaps several days per month). I would need to get approval from my manager and arrange network access from home, which would include some software and possibly hardware upgrades.

Participant 10: I would be very interested in teleworking, though I would need access to my desktop at work. I would also need payroll programs, if I were able to do payroll at home. Processing billing would

be a challenge, though archived files could be scanned and burnt onto CD's for easy transport.

Participant 11: I no longer telecommute on the computer due to the lack of a email site on my computer at home. All that is needed to again start telecommuting is for me to get a new account and set up the program that allows me access to the work place site. I am also able to answer phone messages and pursue environmental concerns via the phone system. I do plan on getting hooked back onto the web at home and reconnect with the [State Agency name] system within the next two months.

Participant 12: I love to telework !!   Our company needed to give me the directive for me to feel comfortable with it.

Participant 13: [Prefaced her email with: I will answer your questions the best I can, but I think you should be talking with the Executive Officer for our agency. My boss asked me if I was interested in telework, and I said yes, so your email was forwarded to me. We only have 3 people in our agency, and I am the low person on the totem pole, but here goes.] (a) Yes. (b) This is not my position to answer. (c) Need Board approval.

Participant 14: Yes I would be interested, but I am the support for my section and there wouldn't be anyway to do it.

Participant 15: Yes I would be interested in teleworking, do not currently do this.

Participant 16: I work part time including one 4-hour day each week. For that day it did not feel it was worth it to commute to the office and back. I can often find 4 hours of work that can be done at home.

Participant 17: Yes. I would need some software installations. (Having two installations of a software application but only one user is sometimes allowed in the licensing agreement, so this may *not* incur additional costs.) And a virtual private network (VPN) or similar network connection to access the Data warehouse and my computer at work.

Question 2: Do you think it would be helpful for organizations such as Oregon Office of Energy, Metro, DEQ, and TriMet to provide additional telework information directly to employees?

Participant 1: Yes. I get the impression that employers have telework policies but don't always make them well-known to employees. Providing information directly to employees might also encourage employees to pursue telework policies at their work sites, or make them aware of existing policies.

Participant 2: Absolutely

Participant 3: If I understand the question, my answer is that ALL companies should provide as much information as possible to employees who might wish to work from home.

Participant 4: No.

Participant 5: Yes. I've worked informally with DEQ and TriMet on related issues at another employer and found them to be very helpful.

Participant 6: Yes

Participant 7: No

Participant 8: I think all business should be able to have this option.

Participant 9: Yes. The more info the better.

Participant 10: Yes, that way we are able to determine if we are able to telework.

Participant 11: I believe it would be helpful for the DEQ Agency to address possible telecommuting options with the employees due to the lack of understanding in operating the software when loading it onto the system at home. My first experience left a lot to be desired in this endeavor.

Participant 12: YES....more information should be avail to employees

Participant 13: I cannot speak for other agencies, etc.

Participant 14: Yes

Participant 15: Yes

Participant 16: If the State has a policy about it this would be useful. If the policy is up to each agency/manager, I'm not sure this would help.

Participant 17: Yes!

Question 3: Is management in your organization supportive of telework? Why or why not? If they are not supportive, what do you think could be done to address this issue?

Participant 1: It's a mixed bag. Some managers are supportive, others are not.

Participant 2: Sort of – they say they are but don't give a lot of support or encouragement. It would help to sit down and make a work plan for each employee that defines how they will manage their "at-home" and "in-office" chores.

Participant 3: It appears that the decision to allow telework is left up to individual managers. My manager likes to know exactly what business project we are working on at home. I assume this is the ensure that the privilege is not abused.

Participant 4: Yes. They provide the equipment we need to use at home. I believe they understand that telecommuting works to their advantage with employees who live in large metropolitan areas where their drive

can be 2-4 hours. I think they also understand that for some positions, it does not matter where the work is done, as long as it is done in the right timeframes/quantities/qualities.

Participant 5: Management here supports telework, through flexible scheduling policies and by giving us the technology to telework productively.

Participant 6: No management isn't supportive of telework. I'm not sure why. They need more information about it, and it should be good for the company.

Participant 7: Yes - supportive - believe that certain time economies that are available for employees who do not have to drive to work - however, we are software development and believe that there is some loss of communications. We like the idea of giving employees quite time away from phones and staff discussions to focus on getting projects done.

Participant 8: I am not sure if they are supportive of a program like this since the job I have has a lot of confidential information. I am in the banking industry.

Participant 9: Our management appears to actively support telework, especially for employees with young children.

Participant 10: I feel that this organization has an open opinion of teleworking and if they have more information about how it works and what the benefits for working outside the office, it might get a test run.

Participant 11: Management has made it possible for employees to telecommute so I would have to say they have a positive outlook where telecommuting is concerned.

Participant 12: Some management is supportive depending on the city they live in If we have a large office in their general area....they do NOT support telework. If there is not a large office, it depends on management philosophy. I think the benefits of telework need to be encouraged by upper management in our company. [Also commented: My life is much more balanced with telework .....I am very productive now! The only slightly negative is the guys in the "old school mentality" assume if you aren't in the office ...you are out playing . I am in sales so my numbers show I'm working ...but it is still hard to have the "judgment passed".]

Participant 13: (a) Not sure. (b) Increase of budget approved through State Legislation and Board members.

Participant 14: I guess they are, but not for me.

Participant 15: Not so far, he doesn't see the benefit to my being at home vs here at work.

Participant 16: It depends on the manager and the person's job. I think managers want to ensure that the work is getting done and that this doesn't become a scheduling issue. So if telecommuters can show they're

---

getting work done, and in fact that they can be more focused and efficient at home because there are fewer interruptions, and if telecommuters are flexible about coming in for meetings, it would increase the comfort level of managers. If employees expect everyone else to work around their telecommute days it can be difficult to schedule meetings and becomes a pain.

Participant 17: I think so although I have never brought it up in conversation because I didn't know it was a potential topic of conversation or a possibility until now. It seems like it would fit into the environment and flexibility that my supervisor encourages and supports.

Question 4: How does telework affect communication and team work in your organization?

Participant 1: We work pretty independently in my little work group, so as long as we can email and phone one another, communication is unaffected. I do miss my co-workers when I work at home - I find that when I call them, I'm more inclined to chat if I'm working at home.

Participant 2: You are still connected via email and phone. Customers who need answers based on hard files can be told when you will be back in the office.

Participant 3: In my department we all work pretty independently of each other and it appears that two or three co-workers work from home on average 3-4 days per month.

Participant 4: We had to develop an Access database that contains a list of all our projects, with a comments field that allows us to update our progress on each project. The database also contains a follow-up date field, the writer's name who is working on the project, and other details.

In addition, the background information on each project is filed in a follow-up file per the follow-up date that is entered in the database.

Daily, we printout a report that shows each project in alpha order, the date it is up for follow-up and a short comment on it's progress. If more details are needed, we can go to the follow-up file and pull the background. This allows the writer who happens to be in the office to help any of our clients, even if they aren't working on that particular project.

Participant 5: The process works pretty transparently for me as someone who doesn't telework now. I do have to keep in mind my co-workers' telework schedules so if I specifically need face-to-face time I can schedule it. Ordinarily a phone call to their telework location takes care of any problem. My teammates who telework are happy with the resource, so that's fine with me.

Participant 6: It may affect communication, but it should affect team work.

Participant 7: Telephone, email etc. seem to work well. However, there is no substitute for software development in being able to talk to a co-worker when you are in a dilemma on what pathway (decision) to take. White board "talk" and reading body language is invaluable not easily yet replaceable with electronic communications.

Participant 8: Don't even know if this available.

Participant 9: My workgroup seems to do a good job of integrating workflow from our two employees (of five total) who telework. We communicate via email and phone, and every team member is in the office for at least half the week.

Participant 10: I feel that the communication in our company needs work on it's own, so the possibilities of having to call in or email a manager may be more beneficial if working off site. This would force the issues of communication and team work to be addressed.

Participant 11: Telecommuting has both benefits and draw backs. One of the benefits is that if an employee is sick or unable to come into work they can still be reached and conduct work from home. A draw back of the system is that you may not be around at work when and emergency situation comes up or that you are not on the net when a question comes up so you may not be able to be reached easily as if you were in the office. If you have a business phone then this is not as big of a problem than if you didn't.

Participant 12: Telework is very positive if the employee WANTS to telework. If they do not...it is negative. Teamwork...I always make time to spend in the office with other team members. Email and voicemail/cellphones help a lot. DSL is very important in a virtual office.

Participant 13: We do not have telework.

Participant 14: I believe that folks are happier being able to spend more time in their homes and not on the road and in an office building.

Participant 15: not sure, there isn't anyone doing it in my department

Participant 16: I don't do it enough to affect communication or team work. And my coworkers know how to reach me the days I work at home.

Participant 17: I can only speculate since I don't currently telework. I think it would have little impact on the way I currently work because most of our team communications are done via email, phone or a regular weekly roundtable meeting. There is certainly one or two days a week that work could be done offsite.

Supplemental Questions for Teleworkers Only

Question 1: Has information you received on telework raised your personal awareness of environmental issues associated with commuting?

Participant 1: Hard to say - my awareness was pretty high to start with.

Participant 4: No. I was already aware of the environmental issues.

Participant 7: No

Participant 16: No

Question 2: Do you think it makes a difference whether the organization has a formal written policy and agreement or not? (as opposed to an informal spoken agreement)

Participant 1: I really don't know. My inclination is to say yes, and that a formal policy is good. But I think it should provide general guidelines, and not get too specific and simply require satisfactory work.

Participant 4: No, it does not make a difference. My company is very large and there is no formal written policy corporate-wide. Each business line is expected to weight the merits of telecommuting and make decisions on if and how telecommuting can work based on their needs.

Participant 7: No however, (as a manager) I have become concerned that some employees see tele-work as a freedom whereby they are able to complete personal appointments without confirmation of their manager and not report them to for PTO. I suppose this isn't different for employees working in an office environment, but with cell phones it's somewhat easier to be in contact while not focusing on your employer's projects.

Participant 16: Yes