



# TELECOMMUTING

## **Telecommuting Helps Central Oregon Businesses and Agencies Do More With Less**



*Jeff Vaughn is one of 28 ORCOM telecommuters helping the company improve productivity.*

**M**ore hours worked, more productive work time, less money wasted on gas and travel – these are some of the advantages that companies, agencies and individuals are gaining through telecommuting.

It's good for the environment and community too: Because telecommuting reduces vehicle miles traveled, it conserves fuel, reduces air pollution, and eases traffic congestion and parking shortages. That's especially welcome in central Oregon, an area coming to grips with escalating traffic and other signs of population growth.

Three telecommuting projects in central Oregon confirm the payoffs.

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#### **A SOFTWARE COMPANY REWARDS TELECOMMUTERS' INCREASED PRODUCTIVITY**

**O**RCOM is a Bend business providing custom-made utility billing software worldwide. The company's 110 full-time employees work in software development, sales and product support.

Workload requirements and salary structure of the firm account for long working hours. According to Vice President Chris Webber, "It's not uncommon for an employee to work 60-plus hours a week – and they're well-compensated for doing so."

Before the company's telecommuting pilot project, employees either stayed late or returned to the office after hours or on weekends. Now many put in those hours from home on a schedule more compatible with family needs.

#### **TELECOMMUTING DEFINED:**

*Telecommuting is using telephones, computers and other equipment to work at home or at an office near home – usually one to three days a week – instead of commuting to the main office or place of business.*

## ONE-YEAR SAVINGS ORCOM TELECOMMUTING PROJECT

Commute miles	23,296 miles
Fuel	1,165 gal
Dollars	\$1,456
Emissions	932 lb

October 1993 to September 1994

Figures based on:

- 28 employees telecommuting 2 days a week
- Average round-trip savings of 8 miles/day, 52 weeks a year (includes overtime)
- Vehicle efficiency - 20 miles/gal
- Fuel costs - \$1.25/gal
- 1 lb emissions per 25 miles traveled

### Tooling Up for Telecommuting

Telecommuting employees must have access to the company's S400 minicomputer. ORCOM added phone lines to its minicomputer to provide access to 28 computer programmers and sales people working from home and the field. The company also purchased modems and dedicated home phone lines for telecommuters' personal computers.

Some employees chose to work from home one or two days a week. Others wanted to work a full day at the office, then work additional hours at home evenings and weekends. Remote access to the office minicomputer allowed sales staff to stay out in the field longer.

### Work Time, Customer Service Enhanced

Webber says ORCOM managers encourage employees to work at home because they typically have fewer interruptions there. "As a supervisor," says Webber, "I'm generally half as productive working at the office than when I work at home because the work environment lends itself to non-urgent distractions.... I have more difficulty meeting deadlines surrounded by the interruptions of the workplace."

While employees got more done when they worked at home, the most pronounced increase in worker productivity during the pilot project came from

## STATE TAX CREDITS AND LOW-INTEREST LOANS FOR TELECOMMUTING PROJECTS

*A 35 percent Oregon Business Energy Tax Credit can offset the cost of purchasing and installing equipment at the telecommute site. Computers, facsimile devices, modems, phones, printers, software, copiers and other equipment necessary for telecommuting are eligible. The credit is taken over five years against Oregon income taxes owed. Equipment must be used for telecommuting at least 45 working days per calendar year. Expenses for home-based businesses are not eligible.*

*Oregon businesses also can obtain low-interest loans from the state for telecommuting projects. Current interest rates for the Oregon Small Scale Energy Loan Program range from 8 to 10 percent. Because of financing costs, loans of \$25,000 or more are most cost effective.*

*The Oregon Department of Energy administers the tax credits and loans and offers training and technical assistance. To learn more, call the Department toll-free at 1-800-221-8035. In Salem, call 378-4040.*

additional work time. "We didn't intend that our telecommuting employees work more hours," said telecommuter Jeff Vaughn. "But they did because the distance between home and work was no longer a barrier — and we got happier employees as well."

Skipping return trips and the daily commute to the office add up: ORCOM's 28 telecommuting employees saved 23,296 commuter miles during the one-year pilot project. That's good news for employees and the community.

Another win-win advantage is how telecommuting improved ORCOM's 24-hour-a-day client support. Before the pilot project, on-call staff had to return to the office to respond to customer problems. Now staff can handle them from home via modem access to the office minicomputer.

Telecommuting is a good fit with ORCOM's self-motivated work force and objectives-based management style, says Webber. Because of the success of its pilot project, the company continues to expand the number of telecommuters.

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### COUNTY APPRAISERS PRAISE SAVINGS

**D**eschutes County field appraisers who live in outlying communities can go directly to the field without first checking in at the office. In fact, they can stay out in the field all day. They carry cellular phones so they can call into the office for any data they need.

It wasn't always this way. Appraisers living in Redmond and La Pine used to drive 20 to 30 miles first thing in the morning just to pick up their daily paperwork and a county vehicle from the Deschutes County Assessor's Office in Bend. Then they'd drive to assigned properties. Appraisers also made frequent trips to the office to get additional information they needed for assessments, wasting more gas and travel time.

Four appraisers who experimented with telecommuting proved that cellular phones and trip planning could improve productivity for both telecommuters and support staff, and save personal and county travel time and costs.

The promise of higher productivity was what made the Assessor's Office give telecommuting a try. With so much construction in central Oregon, it's been hard for the county to make the required number of appraisals.

"Production was in excess of what anyone anticipated," reported Chief Assessor Kim Worrell. "We exceeded what the Oregon Department of Revenue thought we could do in reappraisal this year by a third. I think the (cellular) phones had a tremendous amount to do with it."

#### More Time for Less Money

The Assessor's telecommuting pilot project coincided with the reassessment of Redmond area properties. Three appraisers who live in the area were assigned to the Redmond appraisals. They left their own vehicles at the Redmond Post Office, exchanged them for county vehicles, and went directly to local assigned properties. Cellular phones provided a link between telecommuters and the main office.

The Redmond telecommuters avoided a 40-mile round trip commute to the Bend office. Travel back and forth



*Deschutes County assessor Rhonda Comfort eliminates a 40-mile round trip to Bend several days a week with use of a cellular phone.*

to the field also was reduced by 40 miles. Time in the field increased by at least 40 minutes.

The fourth participant in the pilot project lived in La Pine, 30 miles south of Bend. He was assigned to appraisals in the La Pine area, and exchanged his personal vehicle for the county's at the La Pine Community Development Office. That reduced his commute by 60 miles a day, freeing up 80 minutes of his day. The county increased time in the field by 80 minutes while reducing travel costs.

The four telecommuting appraisers reduced their personal commutes by a total of 25,056 miles during the one-year pilot project. Less time commuting means more time at home. For at least one telecommuter, a single parent, that's worth a lot. "It gave me another half hour in the morning to be home with my sons. The extra time makes a difference."

The pilot project reduced travel for agency business by 21,632 miles. The savings represents a 58-day-a-year reduction in travel time.

#### Telecommuting Boosts Agency Productivity

Chief Assessor Worrell could easily track telecommuters' performance by the number of completed assessments. Both telecommuters and

office support staff reported increased productivity. Reasons besides reduced travel time include:

- **Better organization** - Being in the field for long periods requires appraisers to plan their work well in advance. Support staff must prepare in advance the paperwork for up to two weeks worth of field inspections, but said that was not an undue burden.
- **Fewer distractions and interruptions in the office** - The office manager reported that support staff were more productive when they had blocks of time with fewer appraisers in the office. With fewer questions to answer and less non-urgent work requiring immediate response, support staff got more done. "The office manager could prioritize and organize their work without the daily interference of the four of us," said one of the field appraisers.
- **Fewer return visits to the field** - Before they had cellular phones, appraisers had to drive back to the property if they had incomplete data on a home. "The phones made it possible to do an appraisal then and there," explained one of the telecommuters.
- **Less transition time in the office** - Working in the field for longer periods reduced office visits. That reduced transition times — times when appraisers chatted with fellow employees, for example — allowing more time in the field.

Appraisers believe individual laptop computers would further improve their performance in the field. "There are many times when you would like size and cost information about the surrounding properties that is available on the office computers," said one of the appraisers. "Having access to this information in the field would further save calling the Bend office or returning to the field."

## ONE-YEAR SAVINGS DESCHUTES COUNTY ASSESSOR'S OFFICE TELECOMMUTING PROJECT

### Personal Commute Savings

Commute miles	25,056 miles
Fuel	1,164 gal
Dollars	\$1,276
Emissions	1,002 lb

### Assessor's Office Savings

Vehicle miles traveled	21,632 miles
Fuel	1,202 gal
Dollars (fuel costs only)	\$1,502
Emissions	866 lb
Time	58 days

### Total Savings

Miles	46,688 miles
Fuel	2,366 gal
Dollars	\$2,778
Emissions	1,868 lb

*October 1993 to September 1994*

Figures based on:

- Four telecommuters
- Vehicle efficiency - 20 miles/gal
- Fuel costs - \$1.25/gallon
- 1 lb emissions per 25 miles traveled

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## EXTENSION AGENTS HEED THE CALL OF THE QUIET HOME OFFICE

The Oregon State University Extension Office in Redmond provides Deschutes County with educational services and information in the areas of horticulture, livestock, home economics, 4-H/youth, forestry and energy.

Public outreach is an important part of Extension agents' work. But agents also conduct research and write reports, produce publications and articles for their clientele, and plan a variety of programs — work that's more easily done in a quiet, distraction-free environment.

Two Extension agents report that the large blocks of uninterrupted time they have when they're telecommuting from home allow them to get more work done. "My monthly gardening newsletter can be completed in six hours on a telecommuting day but takes over a week to complete when it is sandwiched between office interruptions," says Horticulture Agent Michael Bauer.

He and 4-H Agent Bob Peterson telecommuted from home two days a month each during an eight-month pilot project for the Extension Office. They traded off the office's laptop computer and used a fax-modem to transfer files between home and office.

The agents were available at home for urgent calls. Otherwise, secretaries at the office told callers that the agents were out and would return calls the next working day. That way they could work with as few interruptions as possible and focus on the work they had brought home to do.

### Support Staff Save Too

Fewer interruptions also account for support staff reporting productivity improvements during the pilot project. When agents are in the office, they continually feed work to support staff. That accounts for many interruptions over the course of the day. Agents working at home often bring a lot of work to the office all at once, but the total volume remains the same.

There also are fewer incoming phone calls on days agents are telecommuting, secretaries report. Voice



*Extension Horticulture Agent Michael Bauer borrows the office laptop to telecommute from home about once a week.*

mail would have reduced their work load even further while making it easier for agents to retrieve messages.

### Telecommuters Adapt to Changes in Work Routines

The agents made special arrangements to work effectively at home. Bauer, the father of school-age children, found that telecommuting during the kids' summer vacation was less productive than when they were in school. Peterson used his answering machine to screen for work calls only. He also duplicated his office routine at home by dressing in office-style clothes and taking breaks at similar times. He created a marked transition at the end of the work day by doing chores outside the home.

Telecommuting also required that Bauer and Peterson get better organized. They learned to plan their work for telecommuting days further in advance and to make sure they take home everything they need. That means taking home more work than they think they can get done. They also take care to complete prior to the telecommuting day time-critical work that can only be done at the office.

## **EIGHT-MONTH SAVINGS DESCHUTES COUNTY EXTENSION OFFICE TELECOMMUTING PROJECT**

Commute miles	256 miles
Fuel	14 gal
Emissions	10.24 lb

*October 1993 to May 1994*

Figures based on:

- Two employees living within 5 miles of the office, each averaging 2 telecommuting days per month
- Vehicle efficiency - 18 miles/gal
- 0.04 lb emissions per mile traveled

### **Benefits Weighed, Extended**

Reductions in commuting time and costs during the pilot project were minor because both Bauer and Peterson live within five miles of the office. And they concede that they sometimes have to wade through stacks of phone messages and mail when they return to the office after a telecommuting day. But they appreciate being able to get tasks done without interruption and the flexible working hours that telecommuting allows.

Because of their positive experience with telecommuting, Bauer and Peterson now telecommute from home

one day a week — up from two days a month during the pilot project. The Extension Service county chair has extended the program to four of the office's nine employees.

### **FIND OUT MORE**

**F**ree video tapes and publications are available from the Oregon Department of Energy to help businesses and agencies decide whether telecommuting is right for them and to guide program implementation:

**“Telecommuting: Management Tool for the ‘90s”** - A 13-minute video tape and companion brochure featuring employers and telecommuters telling how they've benefited from telecommuting.

**Telecommuting Handbook** - Explains what it takes to set up and manage a telecommuting program, what types of jobs are appropriate for telecommuting, what people make good telecommuters, and what supervisors expect of telecommuters.

**Telecommuting Training Kit** - A 17-minute training video tape and workbook for telecommuters and supervisors. The program covers telecommuting agreements; communications with peers, supervisors and customers; planning workloads and schedules; setting up a telecommuting office; managing telecommuters; and workplace safety.

To request video tapes and publications, call 1-800-221-8035 (toll-free) or 378-4040 (in Salem).

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