

A FAMILY RESOURCE FINAL REPORT



FLEXPLACE PILOT: WORKING SMARTER

STATE OF COLORADO

Department of Personnel
General Support Services

TABLE OF CONTENTS

Item	Page
Executive Summary	1
Introduction	3
Project Design	5
Project Assessment	
Participant Profile	7
Pre-Implementation Evaluation	9
Orientation	10
Monthly In-Progress Evaluations	11
Final Evaluation	17
Summary & Recommendations	
Summary of Findings	20
Recommendations	21

EXECUTIVE SUMMARY

The State of Colorado, as an employer, is not immune to the changes reshaping the American work place. The basis for the Colorado Flexplace Pilot Project was a 1989 executive order directing the Department of Personnel and the Family Resource Group (FRG) to examine and implement innovations in job design and work schedules. Telecommuting, or flexplace, is one such innovative management tool. The pilot was designed to study the impact of flexplace on productivity/effectiveness and determine its viability for some state jobs. The real question was not whether flexplace works, but how it could be made to work on a regular basis in the state's work setting.

Flexplace (telecommuting) was defined as a change in work location by moving the work to the worker instead of the traditional movement of workers to the office. Fifty-five teams (employees and their supervisors), representing 17 agencies, actively participated. A majority of the team members had some experience with working at home, at least on an occasional basis. The majority of the telecommuters held positions in professional job groupings. The telecommuter generally worked from a home office one or two days per week.

Participation in a number of assessment activities throughout the pilot was required. Completion of orientation was also mandatory before actual flexplace began. As a result of the assessment activities, the following was found.

- 97% of employees and 91% of supervisors reported that the state should continue and expand the flexplace work arrangement to all agencies statewide for appropriate positions.
- The large majority of telecommuters and their supervisors found that the employee's effectiveness and productivity had increased, resulting in an overall improvement in job performance.
- Participants noted improved employee morale and increased motivation, more "job ownership" and job satisfaction, and reduced stress overall.
- There was a general consensus that participation in flexplace allowed an employee greater autonomy and a "feeling of accomplishment" due to increased productivity.
- 26% of the supervisors reported an improvement in their own management skills and improvement in the organizational effectiveness of their work unit.
- Although significant data concerning employee turnover was not reported due to the nature of the pilot, participants and co-workers believed that flexplace could be useful for recruiting and retaining qualified employees, thus reducing training costs.
- Supervisors reported a slight increase in long distance telephone expenses. Equipment and computer software were one-time costs in two instances. Some employees noted a cost for maintaining an extra telephone line, others noted a slight increase in utility costs.
- Telecommuters encountered reduced commuting costs and time. In addition, the number of work-related trips decreased which represents savings to the state. This savings was greater than the increased operating costs noted by supervisors.

- There was indication of minor disruption to some of the participants' work units. Some respondents noted communication difficulties, but there were generally addressed and overcome. Some employees perceived feelings of jealousy or "favoritism" by some co-workers. It was suggested that greater efforts by the agency and supervisors to inform employees about flexplace as a management tool could alleviate many of these negative perceptions.
- Although the pilot did not focus on benefits to the general public, participants noted that the greatest public benefit from the flexplace pilot project was increased cost effectiveness in state government due to greater effectiveness and productivity. The flexplace pilot project also indicated that widespread implementation of flexplace among the state work force would reduce fuel consumption, lessen traffic congestion, and assist the state in attaining federally-mandated clean air standards.

It is the determination of the Flexplace Team that the pilot project has demonstrated that the flexplace work alternative is a viable management tool that can increase the effectiveness and productivity of state employees and state government in general. Implementation on a broader, ongoing basis could allow the state to realize a greater magnitude of the savings and benefits reported from the pilot. Also, additional benefits could be realized beyond those seen in the pilot, e.g., real estate cost savings, addressing Americans with Disabilities Act issues, etc. The use of flexplace on a continuing basis could also assist with the effort to find efficiencies as we "reinvent" state government. Thus, the Flexplace Team presents the following recommendations.

- Given the success of the pilot, it is the recommendation of the Flexplace Team that the Executive Director, Department of Personnel, recommend to the Governor and Cabinet that they strongly support and encourage flexplace throughout state government. It is further recommended that agency heads seriously consider supporting implementation in their own agencies for appropriate jobs.
- It is the recommendation of the Flexplace Team that the Department of Personnel, through the Flexplace Team Coordinator, pursue means to assist state agencies in implementing flexplace for their work force. This assistance should include guidelines and other materials to facilitate implementation.

INTRODUCTION

The American work place is changing significantly due to social, demographic, and economic forces. Diversity in the work force is not only inevitable -- it's here. The needs of workers and their impact on the work place are diverse and demand attention. The majority of our economy today is based on creating, processing, and moving information. Competition is keen, both for qualified workers and for customer satisfaction. The demand to produce more, with better quality and fewer resources, is constant. Environmental regulations are beginning to mandate that businesses take steps to improve air quality and traffic congestion. Employers are searching for new approaches that shape these forces into the new American work place. We are in an age of reform where how well we adjust affects the bottom line.

The State of Colorado, as an employer, is not immune to these changes. The impetus for dealing with the issues has surfaced from a number of directions. The Commission on Government Productivity recommended improvements in the productivity and quality of service in all areas of state government. The Governor's Strategic Plan for Total Quality Management promotes a management style focused on productivity through improved quality of service. The Governor's Trip Reduction Task Force has examined air quality and energy conservation. A 1989 executive order, setting the state's policy on work-related family issues, directs the Department of Personnel and the Family Resource Group (FRG) to examine and implement innovations in job design, work schedules and location that improve productivity by improving quality of life. Telecommuting, or flexplace, is one such innovative management tool. While not new, its use is steadily increasing as the employee-employer relationship is redefined to meet the needs of the changing American work place.

The primary goal of the pilot project was to determine how flexplace could improve productivity in the state's work force. The objective of the pilot was to determine if flexplace is a viable option for some state jobs. The numerous employer reports in the literature and the steady rise in telecommuting show that it is a proven management tool. The real question for the pilot was whether it could be made to work on a regular basis in the state's work setting.

For purposes of the Colorado Flexplace Pilot Project, flexplace was defined as moving the work to the worker instead of the traditional movement of workers to the office. Volunteer participants worked in a home office for a set portion of the workweek, generally one or two days per week. To realize the fuller potential of flexplace, the pilot involved work at home on a regular basis. This was distinguished from ad hoc arrangements or field operations regularly conducted by some state agencies. Also included in the state's definition was the concept that the telecommuter remained a regular employee with all the attendant rights, benefits, and responsibilities of state employment. Given the voluntary nature of the pilot, either the employee or supervisor could terminate participation at any time and for any reason. Simply put, flexplace is essentially a management tool that involves a change in work location only.

Flexplace offers potential benefits to both the employer and telecommuter. The state anticipated realizing some of the same benefits experienced by employers who have implemented telecommuting. The evaluation of the pilot determined if projected results were realized from the standpoint of both the employer and employee. Flexplace also offers potential benefits to the public in general, e.g., better air quality, reduced traffic congestion and fuel consumption, increased effectiveness and reduced costs in state government. However, this was not the focus of the pilot so there is little assessment in this area.

Potential benefits to an employer.

- Improved performance and productivity. The reported average by other employers is approximately 20 percent.
- Enhanced cost effectiveness, including decreased absenteeism and turnover, savings in space and energy costs, and expanded recruitment pools. Given the nature of the pilot, it was not anticipated that any benefits would be seen in this area. It should be noted, that employers report very substantial savings in this area, especially in real estate costs.
- Improved managerial skills and communication that benefit the entire organization.
- Improved employee morale and increased motivation.
- Increased ability to meet existing or prospective air quality regulations and standards.

Potential benefits to an employee.

- Greater job satisfaction.
- Greater flexibility, autonomy, and effectiveness.
- Reduced commuting costs, time, and stress and other work-related expenses, such as clothing and meals.

PROJECT DESIGN

Thirteen individuals were selected to serve on the Flexplace Team (steering committee) that was headed by the professional who functions as the state's work-life coordinator. Members were recruited from private companies and state government. They brought expertise in such functional areas as human resources management, data processing, energy conservation, worker's compensation, and managing telecommuting. The Team's primary tasks were:

- to assist in identifying and solving issues, including conferring with other employers who have experience with telecommuting;
- to evaluate and approve project procedures, timelines, and materials;
- to oversee project implementation and evaluation; and,
- to approve the final report and recommend the future direction the state should take regarding adoption and expansion of flexplace.

Each agency with potential participants was asked to identify a Flexplace Pilot Project Coordinator to deal with the operational details at the individual agency level. The agency coordinator was also the link to the Flexplace Team. In terms of additional resources, a small grant was obtained to hire a consultant to assist with the development of selection and assessment instruments and evaluate data. CompuAdd and NCR offered both discounts on purchases and/or loaned equipment for the pilot.

Project Plan

- **Research.** Review of the literature and existing programs in both public and private sectors.
- **Approval.** The State Personnel Director presented the concept and plan to the Governor and Cabinet who approved proceeding with the pilot. Each executive director or college/university president then determined if their agency would participate.
- **Marketing.** Release of information explaining the pilot and soliciting volunteers. Methods included the state employee newspaper, various state agency newsletters, state manager's newsletter, a brochure, and a hotline.
- **Selection.** Acceptance of voluntary participants by the Flexplace Team using screening surveys completed by the employee and supervisor.
- **Orientation.** Mandatory training and planning session for the flexplace teams (supervisors and employees). Supervisors and employees were first trained separately and then together, culminating in an initial work plan and participation agreement. The focus was on such areas as communications, home office planning, equipment needs, measuring work, and discussion of concerns.

- Implementation. Actual telecommuting was a six-month arrangement with staggered beginnings from June through August of 1992.
- Evaluation. Assessment of results and a recommendation on whether to adopt flexplace on a permanent basis within the state personnel system.

PROJECT ASSESSMENT

The project was assessed at various stages because flexplace was new to Colorado state government. Data was collected throughout the project using several methods. Both employees and supervisors participated in the assessment. Volunteer co-workers were also sought to further assess the impact of flexplace on the office setting. A good deal of the gathered data is anecdotal in nature, resulting from open-ended questions on assessment instruments and focus group discussions.

Participant Profile

Seventy-five employees applied for participation in the pilot and 20 were not accepted because their department was not participating (13), the supervisor disallowed participation (5), or due to timing of the pilot (2). Sixty-seven employees and 61 supervisors representing 19 agencies were initially accepted. Fifty-five teams (99 people) representing 17 agencies actually started flexplace. Twenty-one employees in six agencies volunteered to participate as co-workers. The following information was collected from the screening surveys completed by employees and supervisors.

- 89% of employees were full time, 9% were part time. 59% of employees were female and 41% male. In terms of occupational group: 64% were in Professional Services; 10% in Physical Sciences and Engineering; 9% in Financial Services; 9% in Office Support and Related (now Administrative Support and Related); 5% in Labor, Trades, and Crafts; and 3% state employees outside the state personnel system.
- 13% of employees supervised others.
- 69% of employees had five or more years of state service. 78% had been in their current job for one or more years.
- 13% of employees had never worked from home before, even on an occasional basis. The same is true of supervisors in terms of their own experience working from home. 25% supervisors had never allowed employees to work from home before, even occasionally.
- The majority of employees requested to work from home for one day (29%) or two days (40%). The majority of supervisors would allow flexplace for one day (38%) or two days (33%).
- 16% of employees commute up to five miles round trip each day, 16% commute five to 15 miles, 20% commute 16 to 25 miles, 11% commute 26 to 30 miles, 14% commute 31 to 40 miles, 9% commute 41 to 50 miles, and 13% commute 51 or more miles.

- 86% of co-workers had not applied for the pilot and 14% had applied but were not accepted for a number of reasons.

By the end of the project, six teams had dropped out of the pilot due to organizational/supervisory changes (1), organizational climate (1), conflict with work schedule and pilot timeline (3), or problems with equipment setup (1). In addition, three co-workers representing one agency did not complete the pilot because the team in their work unit withdrew.

Pre-Implementation Evaluation

Employees, supervisors, and a small number of co-workers completed questionnaires prior to the orientation and actual start of flexplace. Assessment at this stage was intended to gather information on perceptions about the work place setting and procedures and expectations regarding the impact and results of flexplace. It was anticipated that this information would provide a baseline for later comparison against the actual results. Overall, all participants predicted that flexplace would be a useful pilot that would benefit the telecommuting team and work unit. Employees projected less commute time and costs, less stress, greater flexibility, and an opportunity to increase independence of action. Supervisors predicted an opportunity to improve managerial skills and increase the productivity and effectiveness of the work unit and telecommuters. Participants expected that most problems were open to solution with proper planning and a willingness of all staff to be flexible. The pilot was also viewed as a useful demonstration of a positive way to lessen traffic congestion and reduce air pollution. The following information provides more detail on some of the responses by telecommuters (T), supervisors (S), and co-workers (C).

T	S	C	Statement/Comments
82%	82%	73%	Work group is viewed as highly productive.
71%	82%	59%	There is sufficient time to work together cooperatively when needed.
80%	72%	76%	Employees believe there was no supervisory favoritism in selecting pilot telecommuters.
71%	100%	63%	Telecommuter's job is well suited for flexplace.
7%	9%	2%	Agency's upper management will not be supportive of flexplace.
39%	47%	50%	Most employees would prefer flexplace if given the opportunity.
88%	88%	na	Flexplace employee has a strong commitment to the organization.
78%	78%	na	Flexplace employee is highly motivated.
4%	4%	na	The supervisor will have to closely monitor how the telecommuter manages time.
89%	88%	na	The supervisor can let the telecommuter decide how to complete assigned projects.
Supervisors' Comments Regarding Employees: In general, supervisors were comfortable supervising an employee working from home. All believed the telecommuter would be able to concentrate more on work when working from the home office. Supervisors rated the employee as "good" to "excellent" on communication skills, dependability, effectiveness, interpersonal skills, and productivity.			
70%	92%	77%	Anticipate an easy transition to flexplace for the work unit.
7%	8%	36%	Flexplace will make work more difficult for co-workers in the office.
7%	27%	na	Flexplace employee's work requires frequent interaction with the supervisor.
89%	90%	na	Most meetings are scheduled far enough in advance that flexplace will not cause employees to miss important meetings.

64%	78%	50%	Flexplace could improve the state's ability to retain competent employees.
89%	92%	na	Flexplace employees will not miss out on training opportunities.
11%	4%	18%	Flexplace could influence the employee's chance for promotion.
<p>Comments Regarding Implementation: The majority of supervisors and employees believed that proper planning and a willingness of staff to be flexible would allow communication issues to be resolved satisfactorily, e.g., face-to-face communication could readily be replaced by communication through other means, such as memos, phone calls, E-mail, V-mail.</p>			
na	71%	na	As a supervisor, enthusiastic about flexplace.
82%	80%	45%	Flexplace allows employees the flexibility to work during "personal" productive hours.
75%	71%	50%	Telecommuters will be more productive and effective working away from the office, e.g., crowded work areas, disruptive noise, distracting interruptions.
<p>Comments Regarding Projected Success: Supervisors and employees anticipated reduced stress and burnout, better morale and more enthusiasm for the job, more personal independence of action, less commute time and costs. While the number of respondents was too small to significantly impact pollution and traffic congestion, they did report that the pilot could demonstrate how widespread implementation may impact and serve to help meet federal air quality standards. 24% of supervisors like the idea of being able to utilize the employee's space when out of the office. While 45% of employees were ok with this concept, 16% did not like the idea that their space could be used for other purposes while they were out. 51% of supervisors reported that flexplace might improve their own management skills and 22% of co-workers agreed.</p>			
11%	29%	36%	It would be difficult for a supervisor to telecommute.
na	29%	na	Equipment problems could impact the employee's ability to complete work assignments.
na	14%	64%	There is "some fear" that telecommuters will "take advantage of flexplace to slack off".
<p>Comments Regarding Projected Difficulties: Both employees and supervisors stated that flexplace could be used as a "scapegoat" for any number of office problems that in fact may have nothing to do with flexplace. They also noted that the opportunity to plan during the orientation would reduce the likelihood of problems going unchecked. The employees anticipated some initial difficulty in coordinating between the office and the home office. Around 25% believed that co-workers would view flexplace as an unfair benefit given to telecommuters. A few co-workers reported that the telecommuter's use of time would be under suspicion by non-participants, but the supervisor's establishment of clear expectations and products for all staff would alleviate the concerns.</p>			

Orientation

Before actual telecommuting could begin, all supervisors and employees were required to attend orientation. Six sessions were offered between May 28 and August 20. A session was a half-day. Employees and supervisors first attended separate meetings and then all participants met as a group. The orientation was targeted to individuals with no prior experience and assumed that not all participants thoroughly reviewed the training materials prior to attendance, as requested.

Topic	Telecommuter	Supervisor
Pace of session	83% all right 17% too slow -- had prior experience or thorough, prior review	44% all right 48% too slow (same reason as telecommuters) 8% too fast
Exercises	80% all right 4% excellent 16% poor -- duplicated reading materials Some resentment noted that not all had prepared adequately ahead of time as requested.	100% served intended function.
Handouts	65% good 31% excellent 4% poor	80% good 20% excellent
Training Objectives	75% well met 21% met very well 4% poorly met	76% well met 24% met very well
Preparation for Flexplace	60% better prepared 12% much better prepared 22% slightly better prepared -- more training time needed or preparation prior to attendance should be required of all trainees	64% better prepared 12% much better prepared 24% slightly better prepared -- concept easy to grasp, easily implemented and monitored by a competent supervisor.
Overall	81% good 8% excellent 11% poor	76% good 16% excellent 8% poor
Orientation Strengths	Opportunity to communicate fully with supervisor on planning work and work products; time for joint in-depth planning of individual objectives and unit procedures; opportunity to gain more knowledge about and understand flexplace; joint discussion on overcoming identified pitfalls and roadblocks to success.	Opportunity to clarify performance expectations; time to plan for success; outline concrete work plans and develop greater rapport with employee; opportunity to gain more knowledge about and understand flexplace; identify and discuss issues/concerns not readily apparent to one unfamiliar with flexplace.
Orientation Weaknesses	Depended on prior experience or prior review of materials (going over materials already read); "pace to slow" to "not enough time to complete exercises"; poor room logistics	Same comments as telecommuters and added that more time was needed for the joint session.

Monthly In-Progress Evaluations

Employees and supervisors responded at monthly intervals throughout the pilot to a series of questions. Typically, agency coordinators conducted focus groups and reported the results to the Flexplace Team Coordinator. Co-workers did not participate in this stage of the assessment. There was unanimity among participants that the flexplace pilot was a success overall. All agreed that there had been issues to address and difficulties to overcome. The general assessment was that flexplace should be expanded with proper guidelines for agencies on the type of position and person

that could be appropriate for this work arrangement. A number of recommendations were proposed for improving flexplace as a management tool should it be expanded.

Assessment #1. (Three questions were asked.)

“In general how is flexplace working?” Overall, participants reported that flexplace was working very well, with no major surprises. There was a reported increase in employee effectiveness and productivity away from the disruption of the office. Employees reported an ability to get to tasks that had been “on the back burner”. At first, some employees did not take enough work home because they were basing their projected workload on what they usually accomplished in the office. Others reported starting a task and realizing that some necessary materials were in the office. Many employees reported that these initial difficulties caused them to improve their organizational skills, and that such problems were readily resolved. Numerous employees reported less stress due to a decreased commute, increased morale due to greater productivity, and increased efficiency due to “peace and quiet”. Some employees reported changing their original flex-day schedule to better meet the communication needs of the work unit. A few employees reported difficulty getting their hardware installed in their home office so they had to delay the start of their flexplace participation. One telecommuter reported that being close to a group of local clients on the flex-day cut travel time and office travel expenses significantly. Finally, some employees reported difficulty in “stopping work” at the end of the day. A number of supervisors reported that the level of trust in the employee was well developed though a few reported feeling uncomfortable over “control” issues. Some supervisors reported that co-workers made fun of the telecommuter and flexplace arrangement, but that it was anticipated and had not generated problems in the office.

“What tips or helpful hints do you have for other participants?” Numerous employees reported the need to treat the home like an office, with “official” start and stop times and other established work routines. Other employees reported the need to have an established routine to prepare for flex-day and the work materials needed for the home office. Finally, some employees reported the need to clarify for co-workers that it was all right to call the home office if the need arose.

Supervisors reported that it was necessary to choose an employee with very good work habits and judgment that the supervisor trusted. It was also necessary to select assignments that could be done in a home office setting, and then to make sure that all staff in the unit understood what was being accomplished through participation in flexplace. Some supervisors reported that it was difficult not to be too rigid or to assess the flexplace project before it had ample time to demonstrate its workability.

“How is the communication link between the participant and the office working?” Employees reported that communication links were working well due to proper planning and the ability to be flexible to resolve any communication problems. Supervisors reported general satisfaction with the communications, noting that they (employees and supervisors) had planned for regular channels of communication with the office and with the supervisor. Many employees had a schedule for calling the office at regular intervals. Other employees regularly used E-mail, V-mail, a computer modem to transfer files, a two-way radio, and a phone answering machine. Most employees were only out of the office one or two days a week, so there is no “real problem” communicating with co-workers. Finally, telecommuters noted a willingness to go into the office or to change the flex-day if workload

or important meetings necessitated such a change. Supervisors also noted that in most cases there were regular staff meetings that the flexplace employee attended.

Assessment #2. (Two questions were asked of both and an additional of supervisors.)

“What is your perception of the reaction to flexplace by co-workers or other managers?”

Employees reported that most co-workers were supportive of the flexplace employee and would like to have a flexplace arrangement in the future if their jobs allow for it. However, some co-workers apparently were jealous of the flexplace participant and made comments about a “day off”. Supervisors also noted the jealousy of some co-workers and that many would like to participate themselves. Most co-workers were reported to have adapted well, that they understood or believed the increased productivity of the employee. Supervisors reported that there seemed to be general acceptance of the flexplace concept and the way it was working. It was more likely that workers or managers in other work units were skeptical of the flexplace arrangement because they were not as fully informed as the telecommuters’ co-workers. Supervisors reported that most negative feelings seemed to be due to a lack of information about the project and its accomplishments. In general, those most informed about the flexplace work arrangement and its accomplishments were those most likely to be supportive of flexplace. Some supervisors reported that other managers seemed to feel that supervisory controls might be too loose - a failure to understand supervision based on work product.

“What is the reaction or impact of flexplace on your customers?” Most employees reported either no visible reaction or a positive reaction because work products and reports were delivered in a shorter period than previously and often were of higher quality. Many employees reported that their customers were pleased with improved delivery of products. Supervisors confirmed that customer response was generally very favorable. In a few cases, supervisors noted that customers apparently felt that if someone was not working in the office, they were really not working. Overall, customers seemed to feel that the delivery of services and products had improved, and they were pleased. One supervisor reported that “customers have been supportive, understanding, and satisfied”. Most employees reported discussing the flexplace arrangement with their customers prior to starting the pilot. As with most co-workers, this up-front discussion helped with general acceptance of telecommuting by customers. In some cases the telecommuter reported that there was a greater lag in getting messages and returning phone calls than was the case in the office. On the other hand, this lack of continuous interruptions allowed for increased productivity by the employee. Some supervisors reported that accessibility to the flexplace employee was different, but not less. Some employees noted that they had caught up on planned projects that had been put on hold due to a lack of time. Other employees reported that certain standard projects and reports had improved due to the ability to concentrate on them.

“Have the number of flexplace days increased or decreased?” This question was asked of supervisors only. In most cases the number of flexplace days originally scheduled remained unchanged. In a few instances, there was a decrease due to a lack of needed personal computer

equipment or a change in the general work assignment. In one case, a large project required an increase in the number of flexplace days in order to complete the project in a timely manner.

Assessment #3. (Five questions were asked.)

“In general, how is flexplace working? Is it meeting expectations?” All employees believed that the flexplace project was a success, meeting or exceeding the participants’ and supervisors’ expectations. Supervisors agreed that flexplace was working well and providing numerous benefits to both the telecommuter and the work unit. Employees continued to feel that the reduced noise and interruptions, reduced commute and stress, and ability to work at peak hours all contributed to increased productivity, improved quality of work, and better job satisfaction. Overall, managers and co-workers reported satisfaction with the project’s results, though some co-workers still showed signs of jealousy even though work products had been shown and discussed in staff meetings. Some supervisors noted that there were more adjustments to be made than initially expected with schedules and communications. Employees voiced the hope that the state would continue offering a flexplace arrangement and expand it to other state employees.

“What problems or issues still exist?” Most employees reported few real problems or issues for them or with the supervisor. Some still reported jealousy on the part of co-workers and their feeling that the employee was not really working on a flex-day. It was apparent that small pockets of co-workers would not accept flexplace, no matter what positive information about flexplace results and benefits was given to them by agency management. Some supervisors reported an ongoing morale problem with subordinates that wanted flexplace but were not pilot participants. A number of supervisors would have liked to expand the flexplace work arrangement to positions with work assignments that could be readily adapted. Supervisors, as well as employees, recognized that trust was an important aspect of a positive flexplace experience.

“Are there any tangible changes in productivity?” Most participants reported an increase both in the quantity and the quality of the telecommuter’s work product. Supervisors further noted increased productivity, shortened turnaround time on projects and reports, and the ability to finish a number of projects that otherwise might not have been accomplished. Some employees reported that the flexplace work arrangement allowed them to keep pace with an increase in their workload. Many employees reported a significant increase in ability to concentrate on difficult or complex tasks and projects due to decreased interruptions. Some supervisors also noted that their flexplace subordinates were happier than they had been when they were in the office full-time.

“Are there any identifiable costs or savings due to participation in the flexplace pilot project?” All employees reported at least some savings on transportation costs - gasoline, wear and tear on car, bus costs, etc. Some employees reported fewer expenses for meals as they were not going out for lunch, slightly lower dry cleaning bills and fewer expenses for new clothes over the long run, and a savings of time that could then be devoted to personal and family needs. A few telecommuters reported reduced child care costs due to flexibility in their hours when they worked at home. Also, some employees noted reduced stress levels as a “cost savings” in their mental health and ability to be more productive. Some supervisors noted a cost savings in time that made the participant more

productive and effective, resulting in higher morale. Some participants, including supervisors, also reported less usage of sick leave as the participant could work at least part-time at home when they were too sick to come into the office. As a cost, some employees reported an increase in their monthly utility bill due to being home more often. In some cases there was a one-time cost to the agency to purchase hardware or software for the telecommuter's use at the home office.

“Are there any issues that the Flexplace Team can work on to improve the program?” Employees believed that the Flexplace Team had done an excellent job with the structure and monitoring of the pilot project. They did, however, identify some ways to enhance the program. For example, employees suggested some formal training of co-workers to improve their understanding of the program (e.g., flexplace is not appropriate for all positions) and increase their knowledge of agency support for flexplace as a means to improve employee productivity. It was believed that this training might lessen the jealousy and suspicion observed on the part of some co-workers. It was also suggested that more discussion of the pros and cons of flexplace during training might better prepare participants for resolving difficulties, as would sharing information on successes. Another suggestion was to compile a directory of all flexplace team members, with class title and a very brief job description, to facilitate networking and problem resolution. If the flexplace program is expanded to additional agencies and employees, it was suggested that it would be helpful to create a central resource to deal with hardware/software acquisition, installation, trouble shooting, etc. A final recommendation was to have some informative and laudatory articles about the success of the flexplace pilot project in Stateline (the newspaper for state personnel system employees). Such articles were seen as especially important if flexplace is to be expanded statewide. Supervisors agreed and further recommended the release of results to Colorado radio, newspapers, and television outlets.

Some supervisors recommended that either agencies or supervisors be required to develop an internal policy describing criteria for employee participation. To assist agencies, a model of such a policy could be developed by the Flexplace Team Coordinator in conjunction with representatives of agency management. Another suggestion, based on the results of the pilot project, was to put together a booklet of answers to commonly asked questions and resolutions to frequently encountered issues.

Assessment #4. (Travel log kept by employees only.)

Employees were asked to maintain a travel log for one week. During this week, on the commute to the office, one employee rode in a van pool, one employee rode in a two-person car pool, three employees used public transportation (bus), and the remainder of the employees used their own private automobiles. The one-way commuting distance, for those driving their own automobile, ranged from three and a half miles to 77 miles, with one exception of 250 miles for an individual out-stationed in another part of the state three days a week. With the exclusion of the out-stationed individual, the average one-way commute was 19.75 miles. The average commute for all employees was 33.3 miles. Employees did encounter reduced commute costs, as well as reduced commute time and stress. The potential cost savings can be illustrated using a formula from the U.S. Department of

Transportation (1992). In this illustration, it was assumed that a compact car was driven for purposes of the total cost per mile of operating the vehicle.

Savings for one-day flexplace with an average commute of 19.75 miles (39.5 round trip) over the six months of the pilot would have been \$252.24.

Savings for two-day flexplace with an average commute of 19.75 miles (39.5 round trip) over the six months of the pilot would have been \$504.48.

Savings for one-day flexplace with an average commute of 33.3 miles (66.6 round trip) over the six months of the pilot would have been \$425.28.

Savings for two-day flexplace with an average commute of 33.3 miles (66.6 round trip) over the six months of the pilot would have been \$850.56.

Additional information regarding commute time and costs was also collected during the final evaluation. It is presented in the next section.

Final Evaluation

At the conclusion of the pilot, employees (T), supervisors (S), and co-workers (C) completed questionnaires. The questionnaires were intended to solicit information regarding the impact of flexplace on the work unit and the actual results. In addition, employees and supervisors participated in separate focus groups to discuss a series of questions. This information had a major impact on the recommendations presented later.

T	S	C	Statement/Comments
87% (+5%)	74% (-8%)	78% (+5%)	The unit's productivity stayed the same or improved.
95% (+24%)	86% (+4%)	72% (+13%)	There was sufficient time to work together when needed.
0 (-29%)	11% (-11%)	17% (-20%)	Telecommuter's job was ill chosen or inappropriate for flexplace.
95%	71%	83%	The flexplace schedule allowed enough informal contact with co-workers.
0	3%	6%	The telecommuter missed too many important calls, could not get timely information from co-workers, could not be contacted by co-workers when needed.
100% (+11%)	94% (+4%)	na	Meetings were scheduled far enough in advance that attendance was not an issue.
69% (+30%)	69% (+16%)	61% (+11%)	Most employees would prefer flexplace.
na	100%	na	Handling confidential information from the home office was not an issue.

na	94%	na	Supervisor was comfortable with supervising telecommuters.
90%	na	na	Telecommuters saw a personal benefit to working flexplace.
3% (-8%)	11% (+3%)	na	Flexplace may have caused missed training opportunities.
100% (+22%)	100% (+12%)	na	Telecommuters had a strong commitment to the agency.
95% (+10%)	100% (0)	na	Employees had satisfactory performance - good to excellent.
Supervisor's Comments Regarding Employees: 23% of supervisors still worry about perceived favoritism. Regarding the issue of informal contact with co-workers, supervisors suggested the establishment of one day when there is no flexplace or flextime and all staff are in the office for meetings and joint projects/business.			
82% (+12%)	95% (+3%)	61% (-11%)	The transition to the home office was easy.
5% (+1%)	14% (+10%)	na	Work had to be closely monitored (too much so) by the supervisor.
8% (+3%)	14%	na	The supervisor demanded too much (was more demanding) of the telecommuter.
8% (+1%)	16% (+8%)	0 (-36%)	Flexplace had a negative impact on co-workers (made their work harder).
100% (+2%)	88% (+47%)	72%	Manager still supportive of flexplace.
na	17%	na	Liked the ability of alternative use of employee's space.
90%	na	na	Telecommuter got adequate feedback from supervisor.
Comments Regarding Implementation: 8% of employees did not like the idea that their space could be put to alternate uses while they were out.			
100% (+18%)	86% (+6%)	72% (27%)	Telecommuter could work during "personal" productive hours.
92% (+17%)	63% (+13%)	na	The telecommuter was more productive.
67%	38%	44%	Quality of work improved when on flexplace.
49% (-15%)	89% (+11%)	28% (122%)	Flexplace could improve the ability to retain staff.
62% (-31%)	80% (-1%)	6% (-3%)	Agency management is still supportive of flexplace.
na	26%	23%	Flexplace improved the supervisor's management skills.
Comments Regarding Success: Employees -- increased productivity and quality were most important successes, e.g., could finish projects that were put off; liked not having to commute, reduced stress and better morale, more job ownership. Supervisors -- built feeling of independence among staff; employee able to concentrate and produce quality results on complex and/or stressful projects; allowed some to work at home when normally would have taken leave; morale builder and built greater feeling of trust between supervisor and telecommuter. Only 3% noted a decrease in productivity. Co-workers -- telecommuter seemed to like the arrangement and seemed more relaxed. 50% of co-workers would like to explore the option for themselves.			
8% (-3%)	14% (-15%)	22% (-14%)	It is too difficult for telecommuters to supervise.
na	3%	11%	Some took advantage of flexplace.
na	11%	na	Increased stress on the employee to produce more.

Comments Regarding Difficulties: Both employees and supervisors noted that equipment installation could be a problem, but planning and lead time would resolve it; there were few issues that had not been overcome; telecommuters must be “focused and disciplined” so careful selection is needed. Supervisors noted that the state should establish clear guidelines on jobs that are deemed suitable for flexplace.

Specific data was requested regarding such areas as the employee’s commute, work-related trips, and operating expenses.

- Employees reported saving an average of 1.5 hours and 52 miles per week in commuting time, representing a total average savings of 9 hours and 312 miles per telecommuter over the six months of the pilot. Using the same U.S. Department of Transportation figure that was applied to Assessment #4, the average savings per telecommuter was \$83. A total of 11,886 miles was reported as saved during the pilot, which would have resulted in a total savings of \$3,161.68.
- In terms of fuel consumption, two percent of employees reported an increase and 69% reported a decrease in the gallons used per month. Over the course of the pilot, the net reported savings was 1,266 gallons of fuel or \$3,614.94. An additional \$600 total was reported as savings in parking fees.
- As for personal travel, only a small percent reported an increase (5%) or decrease (16%) in the number of miles driven for personal errands. This represents an average savings of 76 miles per week, or a total average of 1,824 miles over the time of the pilot for those reporting a change. The change in mileage attributable to family care (drop off/pick up) was roughly the same for a net savings of an average of 74 miles per week or a total average of 1,776 miles for the 18% reporting a change.
- A reduction in the number of work-related trips could result in a savings to the state. Three percent of employees reported an increase in work-related trips, but 41% reported a decrease for a net savings of 866.5 miles per week or a total of 3,466 miles per month. Using the state's current mileage allowance of 20 cents per mile, the savings to the state was \$693.20 per month or a total of \$4,159.20 over the six-month pilot.
- In terms of operating expenses, supervisors reported an increase of \$9 per month, a total of \$54 for six months, in long distance phone bills. In addition, two supervisors reported one-time start up costs totaling \$185 for office/computer materials. The change in leave usage reported by both supervisors and employees was very small. The only notable observation was that all of those reporting noted a decrease in leave usage.

SUMMARY & RECOMMENDATIONS

This section of the report summarizes the findings presented above and presents the recommendations of the Flexplace Team to the Executive Director, Colorado Department of Personnel, and the Governor and his Cabinet.

Summary of Findings

- There was consensus among the large majority of participants (97% of employees, 91% of supervisors, and 94% of co-workers) that the state should continue and expand the flexplace work arrangement to all agencies statewide, with guidelines specifying criteria for the selection of appropriate positions for flexplace.
- There was consensus among the large majority of telecommuters and their supervisors that the employee's effectiveness and productivity had increased, resulting in an overall improvement in job performance.
- Participants noted improved employee morale and increased motivation, more "job ownership" and job satisfaction, and reduced stress overall.
- There was a general consensus that participation in flexplace allowed an employee greater autonomy and a "feeling of accomplishment" due to increased productivity.
- Approximately one quarter of the supervisors reported an improvement in their own management skills and improvement in the organizational effectiveness of their work unit, due to planning and implementing flexplace as a work arrangement.
- Due to the relatively small number of participants and the short time over which the project operated, no hard data was reported concerning employee turnover rates and/or recruitment and retention of staff. (Three percent of supervisors reported an unspecified change in turnover.) However, all three categories of respondents reported that flexplace could be a useful tool in the state's management and personnel/benefits repertoire for recruiting and retaining qualified employees and reducing training costs due to a lower staff turnover rate.
- Supervisors reported a slight increase in long distance telephone expenses. Equipment and computer software was a one-time cost in two instances. The cost depended on whether or not the agency purchased the items, items were donated to the project by a sponsor, or the item was provided by the employee. Finally, some employees noted a cost for maintaining an extra telephone line, others noted a slight increase in utility costs.
- There was consensus among employees that they encountered reduced commuting costs, time, and stress due to flexplace participation. Depending upon the individual, the cost reduction

included bus fare, gasoline/mileage, and parking. A few employees reported reduced day care costs due to schedule flexibility or reduced meal costs due to fewer meals in restaurants. In addition, the number of work-related trips decreased which represents savings to the state. This savings was greater than the increased operating costs noted by supervisors.

- There was indication of minor disruption to some work units with flexplace employees. Some respondents noted communication difficulties, though these were generally addressed and overcome. Other respondents noted feelings of jealousy or perceptions of “favoritism” by some co-workers. It was suggested that greater efforts by the agency and supervisors to inform employees about flexplace as a management tool could alleviate some of these negative perceptions.
- Although the pilot and resulting assessment did not focus on benefits to the general public, participants noted that the greatest public benefit deriving from the flexplace pilot project was increased cost-effectiveness in state government due to greater effectiveness and productivity by telecommuters. The flexplace pilot project also indicated that widespread implementation of flexplace among the state work force would reduce fuel consumption, lessen traffic congestion, and assist the state to attain federally-mandated clean air standards.

RECOMMENDATIONS

It is the determination of the Flexplace Team that the pilot project has demonstrated that the flexplace work alternative is a viable management tool that can increase the effectiveness and productivity of state employees and state government in general. Implementation on a broader, ongoing basis could allow the state to realize a greater magnitude of the savings and benefits reported from the pilot. Also, additional benefits could be realized beyond those seen due to the nature of a pilot, e.g., real estate cost savings, addressing Americans with Disabilities Act issues, etc. The use of flexplace on a continuing basis could also assist with the effort to find efficiencies as we “reinvent” state government. Thus, the Flexplace Team presents the following recommendations.

- Given the success of the pilot, it is the recommendation of the Flexplace Team that the Executive Director, Department of Personnel, recommend to the Governor and Cabinet that they strongly support and encourage flexplace throughout state government. It is further recommended that agency heads seriously consider supporting implementation in their own agencies for appropriate jobs.
- It is the recommendation of the Flexplace Team that the Department of Personnel, through the Flexplace Team Coordinator, pursue means to assist state agencies in implementing flexplace for their work force. This assistance should include guidelines and other materials to facilitate implementation.