
CITY OF LOS ANGELES TELECOMMUTING PROJECT

**Final Report
Executive Summary**

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EXECUTIVE SUMMARY

HISTORY

The City of Los Angeles Telecommuting Project started in early 1989 with a planning project. The project culminated in a formal plan that was submitted to the Mayor and the City Council in August, 1989. The plan recommended implementation of a formal test project that was to include 18 months of active telecommuting and involve 250 telecommuters and a comparable number of members of a control group. The Mayor subsequently requested that the number of telecommuters be raised to 500.

The implementation portion of the project began in April, 1990, with a series of briefings on the project plans to senior City executives. The remainder of 1990 was spent in briefing prospective participants in the project and in selecting the initial set of participants for training.

By the end of 1990, 426 City employees had applied or had been identified by their supervisors for possible inclusion in the project. As part of the selection process, both prospective telecommuters and their immediate supervisors are required to complete background questionnaires. By 1991, 298 employees (and their supervisors) had completed all of the necessary forms. Of these, 279 were recommended by JALA Associates for training and subsequent telecommuting. Although JALA Associates recommended specific individuals, all final selection decisions were made by the management of the participating departments.

Training of the telecommuters and their telemanagers began in January, 1991 and continued through March, 1992, by which time 541 telecommuters had been recommended for training by JALA and 441 telecommuters had been trained, together with their supervisors. Active telecommuting was to begin shortly after the initial training sessions. The rule is that, once a telecommuter and his/her direct supervisor have attended the training sessions and have signed an agreement on their respective roles and performance expectations, they may begin telecommuting. A few of the participants had already been "guerrilla" telecommuters before they received formal training but most were neophytes. Of the 441 telecommuters trained, only 242 had returned written telecommuting agreements to the project office by December 1992. As of March, 1993, 203 telecommuters were still active.

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The formal, data collection portion of the project was completed for most of the telecommuters by July 1, 1992. The data collection period was extended to November 30 for the dozen telecommuters who were trained after January 1, 1992. Therefore, the lengths of individual telecommuting experience range from a few months to more than two years.

GOALS AND OBJECTIVES

The following material, in a smaller typeface, is taken directly from the project plan as submitted to the Mayor and Council.

Telecommuting has become steadily more desirable and practical in the past two decades as the number of information workers has increased and as computer and telecommunications technologies have continued their spectacular advances.

There are a number of reasons to actively explore telecommuting at this time. Here are a few:

- **Air Pollution.** Automobile commuting constitutes the major non-stationary contributor to air pollution. The Southern California Air Quality Management District's Regulation XV requires medium to large employers to quickly take positive steps to reduce commuting. The Air Quality Management Plan calls for a 20% reduction in commuting via telecommuting by 2010.
- **Cost Effectiveness.** Experience with telecommuting in the private sector and by the State of California has shown significant and lasting increases in the productivity of telecommuters—averaging from 5% to 20%, decreased rates of turnover, space and energy savings and other net cost reductions.
- **Traffic Congestion.** It is reaching unmanageable levels in the downtown area—and in many other Los Angeles locales. It is slowing work and frustrating commuters. Just in Los Angeles millions of hours of potential productivity—and billions of dollars in economic output—are being lost annually from congestion.
- **Energy Dependency.** Commuting continues to account for almost half of the automobile transportation energy use in California, making us increasingly susceptible to fuel shortages and supply interruptions.
- **Office Space.** The City is running low on affordable office space in central Los Angeles. Costs of parking space are rising as well.
- **Information Technology.** Computers are showing up on more and more desks of City workers. Computers connected to telephone lines provide a significant opportunity to make many forms of information work partially “location independent” and ideal for telecommuting.
- **Attracting/Retaining Personnel.** Telecommuting as a work option has been found to be an effective tool for helping to attract and retain qualified personnel in a competitive market.
- **Access to Jobs.** The mobility disadvantaged, whether it's a result of physical impairments, inadequate transportation, or other factors, can have easier access to jobs via telecommuting.

The objective of the project outlined here is to test those claims with a group of telecommuting City employees.

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According to the City's consultant, preliminary cost benefit forecasts point to substantial advantages of telecommuting. For example, if the performance of the telecommuters in the pilot project just equals current experience with the State's project, the costs of the project will be recovered in about one year. If the City telecommuters' performance approaches the higher end of private sector experience to date, the pay-back period could shrink to a few months. After that period, hard economic benefits could significantly outweigh operating costs, unlike other approaches to traffic congestion reduction.

The pilot project has five phases: orientation, participant selection, training, active telecommuting and evaluation. In the orientation phase the prospective managers and telecommuters will be briefed on the project. During the participant selection phase the specific participating departments and telecommuters, and the sites at which they will work will be selected. Next, both managers and telecommuters will be trained and active telecommuting will begin. Finally, the results will be evaluated to answer the questions: should telecommuting be expanded beyond the pilot project; and, if so, in what forms?

Although some details of the project design have changed during its course, the overall goals and objectives have remained the same.

RESULTS

Each of the goals enumerated above has been met by the telecommuters in the project.

- **Numbers.** Our analysis suggests that almost 16,000 City of Los Angeles employees could telecommute at least part time, either from home or from a satellite telework center closer to home than their primary office.
- **Air Pollution and Traffic Congestion.** Automobile use by the telecommuters has been reduced in direct proportion to the extent of their telecommuting. The result is both reduced air pollution and reduced traffic congestion—their cars are off the rush hour roads while they are telecommuting. The average City telecommuter reduces annual air pollution production by 276 pounds of carbon monoxide and 17 pounds of NO_x. If all of the 16,000 potential City telecommuters were telecommuting from home at the rates we think are feasible, annual air pollution production would be reduced by 6.2 million pounds of carbon monoxide, 1.2 million pounds of unburned hydrocarbons, 380,000 pounds of NO_x, and 26,000 pounds of particulates.
A critical factor is the effect of this on Average Vehicle Ridership (AVR), as monitored by the South Coast Air Quality Management District. If all the potential City telecommuters were to telecommute from home, averaging 1.4 days per week, the Civic Center AVR goal of 1.75 would be met without further changes in ridesharing or compressed work schedules. Our analysis indicates that this is feasible.
- **Cost Effectiveness.** The effectiveness of the telecommuters has increased by an average of 12.5%—according to their direct supervisors—relative to their non-telecommuting co-workers. Individual effectiveness increases range from no change to 100%. At this point, the annual economic impact of this improvement alone is about \$6,100 per telecommuter. Other annual benefits can add \$2,000 per telecommuter, for a total of about \$8,000 each. If all the potential

City telecommuters were telecommuting, the annual net benefits could be as high as \$140 million, at least \$80 million of which would be in individual effectiveness improvements.

- **Energy Dependency.** The average telecommuter currently saves energy to the tune of about 4000 kilowatt-hours per year, largely from reduced fuel consumption. Not only is the energy saved, the saving accrues to our most important and vulnerable energy resource—petroleum. If all the potential telecommuters were telecommuting 1.4 days per week, the annual energy savings would be about 60 million kilowatt-hours (the equivalent of 1.6 million gallons of gasoline).
- **Office Space.** We estimate that the demand for office and parking space could be reduced by as much as 30% for City telecommuters.
- **Information Technology.** Personal computers are becoming vital tools for almost all City information workers. About 73% of City telecommuters now own their own personal computers and use them for telecommuting. The average telecommuter personally invested \$1400 in telecommuting-related technology in the past year. Some eligible City employees were kept out of the project because they needed personal computers to telecommute but did not have them at home.
- **Retaining Personnel.** Telecommuting is important in retaining the skills of trained City employees; 18% of the telecommuters said the ability to telecommute was a moderate to decisive influence on their decision to stay with the City rather than take a job elsewhere. We estimate the 1992 benefit of that aspect of telecommuting to be at least \$200,000.

Related to this—and to the effectiveness improvements—is the fact that telecommuting clearly enhances the quality of life of the telecommuters.

- **Access to Jobs.** Because of the hiring freeze during the project, we were unable to test the ability of telecommuting to create jobs for the mobility handicapped. However, telecommuting clearly made life easier for those telecommuters who had mobility impairments.
- **Modes of telecommuting.** The figures above are based primarily on the assumption that the telecommuters would be working from home. In reality, we do not expect that all telecommuters would want—or be able—to work from home. A significant number, possibly as much as 60%, would work from satellite offices closer to their homes than their primary offices. These satellite offices could be either City facilities or facilities owned/operated by other public agencies. We would expect that the number of telecommuting days for satellite centers would be higher than those for home-based telecommuting so that the net energy and air pollution impacts would be comparable to those stated above, even though many telecommuters might drive to the satellite offices.

RECOMMENDATIONS

The success of the project leads to the following recommendations.

Continue Existing Telecommuting. Of the 20 departments active in the project, only 2 (employing a total of 5 telecommuters) discontinued telecommuting after the nominal end of the active phase. The rest are continuing telecommuting, for those employees who were involved in the project, until a final decision is made by the Mayor and Council. We recommend that all the present or formerly active telecommuters be allowed to continue/resume telecommuting until that decision is made.

Integrate Transportation Demand Management Strategies.

Telecommuting has proven itself to be an effective rideshare strategy. Promotion and expansion of telecommuting should be a formal part of an integrated strategy for managing the use of transportation by City employees.

Create Specific Incentives and Disincentives. Although the project has been successful, it is abundantly clear that there is still significant resistance to telecommuting—not to mention downright hostility—on the part of many City managers. A system of incentives (recognition, factors in promotion/salary decisions, etc.) and disincentives (such as minimum telecommuting quotas) should be devised to overcome that resistance.

Expand Telecommuting. The results of the project clearly indicate that the use of telecommuting should be expanded. Our analysis suggests that at least 15,934 City employees—one-third of the City's permanent staff—could successfully telecommute. Since a possibly large portion of them would be best suited for telecommuting from a satellite office, it is important to begin further testing of satellite operations as soon as possible.

Increase and Expand Training. It is also clear that training in the management methods of successful telecommuting is important to telecommuting's success. Both initial, pre-telecommuting training and follow-up reinforcement are called for. All of the City's telecommuters and telemanagers should receive training.

Improve Access to Information Technology. There is no question that access to personal computers is a major factor in improving effectiveness of City information workers, whether or not they are telecommuters. A number of telecommuting-trained City employees were prevented from participating in the project because they didn't have personal computers at home or were unable to get access to the City's mainframe computer. Our focus group sessions and personal interviews indicated many cases where City employees have invested their own funds in computer equipment that is superior in performance to that in their principal office. It appears that the City is incurring major opportunity costs because of the freeze on computer equipment. It is extremely important that this issue be resolved soon.

Develop TeleService Program. The City has already developed regional City Halls in San Pedro, Van Nuys and West Los Angeles. Telecommuting could be used to further distribute City services all over the City. This may be of particular importance in areas affected by the recent riots. Mini- or micro-City Halls could be developed, staffed by telecommuters living locally, to provide most City services to local residents.

Provide Area-wide Leadership. There are many ways in which the City can show leadership in Southern California. For example, the City should publicize the results of the telecommuting project to other cities and to area businesses. Zoning ordinances should be rewritten to encourage telecommuting (while discouraging potential urban sprawl made possible by telecommuting). The City should cooperate with other Cities and public agencies to share facilities for telecommuters so that public sector employees all over the region can begin telecommuting from satellite offices near their homes.

ACTION PLAN

As a means of implementing these recommendations, the following specific steps are proposed.

Telecommuting Implementation Group. The first step in the expansion process is the appointment by the Mayor of a proactive Telecommuting Implementation Group (TIG) whose primary task is to **motivate and coordinate** the expansion process. Members of the TIG should be proactive senior managers from every department of the City that has, or is likely to have, active telecommuters. The TIG should also include representatives from all of the affected unions. The Chairperson of the group should be someone who is directly concerned, because of the nature of his/her job, with traffic reduction or with productivity improvement. We suggest that the City Rideshare Program Administrator accept this responsibility. The first action item for the TIG should be the development and coordination of uniform telecommuting guidelines.

Telecommuting Expansion Project. The Telecommuting Expansion Project is a larger scale version of the Pilot Project. The process is quite similar.

- First, the Mayor and Council should address the issues of the necessary policies and infrastructure: personnel work site assignment rules; administrative procedures; telecommunications, computer and satellite office requirements.
- Second, a new series of briefings and/or informal meetings with department General Managers and senior managers should be made, focusing on the key policy issues and the specific experiences in their own departments. No department should be left out of this process. Each General Manager should be asked to develop a telecommuting

implementation plan and schedule. The plan should include technology, training and space needs as well as emergency preparedness issues.

- Third, a series of familiarization briefings to mid-level managers and supervisors should be held, on a department by department basis.
- Fourth, all potential telecommuters should be given briefings on telecommuting, including clear descriptions of the work options and responsibilities of telecommuters, and should be given an opportunity to volunteer to become telecommuters.
- Fifth, the volunteers and their supervisors should go through a formal selection process that serves as a means for identifying possible problems with telecommuting.
- Sixth, the selected telecommuters and telemanagers should be given formal training in telecommuting management techniques.

Steps three through six need not be completed for all of the telecommuters at once. A better strategy for large departments may be to implement telecommuting on a division by division basis, or even in smaller increments, as dictated by operational considerations. The overall schedule may be dictated by the requirements of the SCAQMD. **TeleService Pilot Project.** Given the severe constraints on the City's budget, it is not likely that a series of conventional local City Halls will be built any time soon. However, it seems entirely feasible to do "reverse telecommuting:" to use existing City facilities that are turned into multi-purpose operations for disseminating a variety of information and completing routine City-citizen transactions. Applicants would be able to go to a local City facility and be in contact with the required experts regardless of the actual location of the experts. As is the case with telecommuting, the benefits derived from a TeleService program may significantly exceed operating costs. However, until a more thorough analysis is made of the opportunities, issues, potential benefits and costs, it is not possible to gauge the total impact. Therefore, we propose that a pilot TeleService project be planned and developed to explore the opportunity.

Interagency Facilities Sharing Project. Sponsored by the Institute for Local Self Government,¹ a project is currently under way to develop and demonstrate office space sharing arrangements among local governments. The central concept of the project is that local governments can develop satellite office telecommuting arrangements without necessarily leasing new office space elsewhere. A City of Los Angeles employee living in, say, Rialto could telecommute part time from the Rialto Civic Center rather than commuting to downtown Los Angeles—and vice versa. The City should participate in this or a similar

¹The ILSG is a non-profit, non-partisan research and education organization affiliated with the League of California Cities. Its mission is to promote and strengthen local self government.

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project. Our analysis of the residence and work locations of a sample of 580 prospective City telecommuters indicates that only 4 now work at the City (or other public agency) facility nearest their homes.