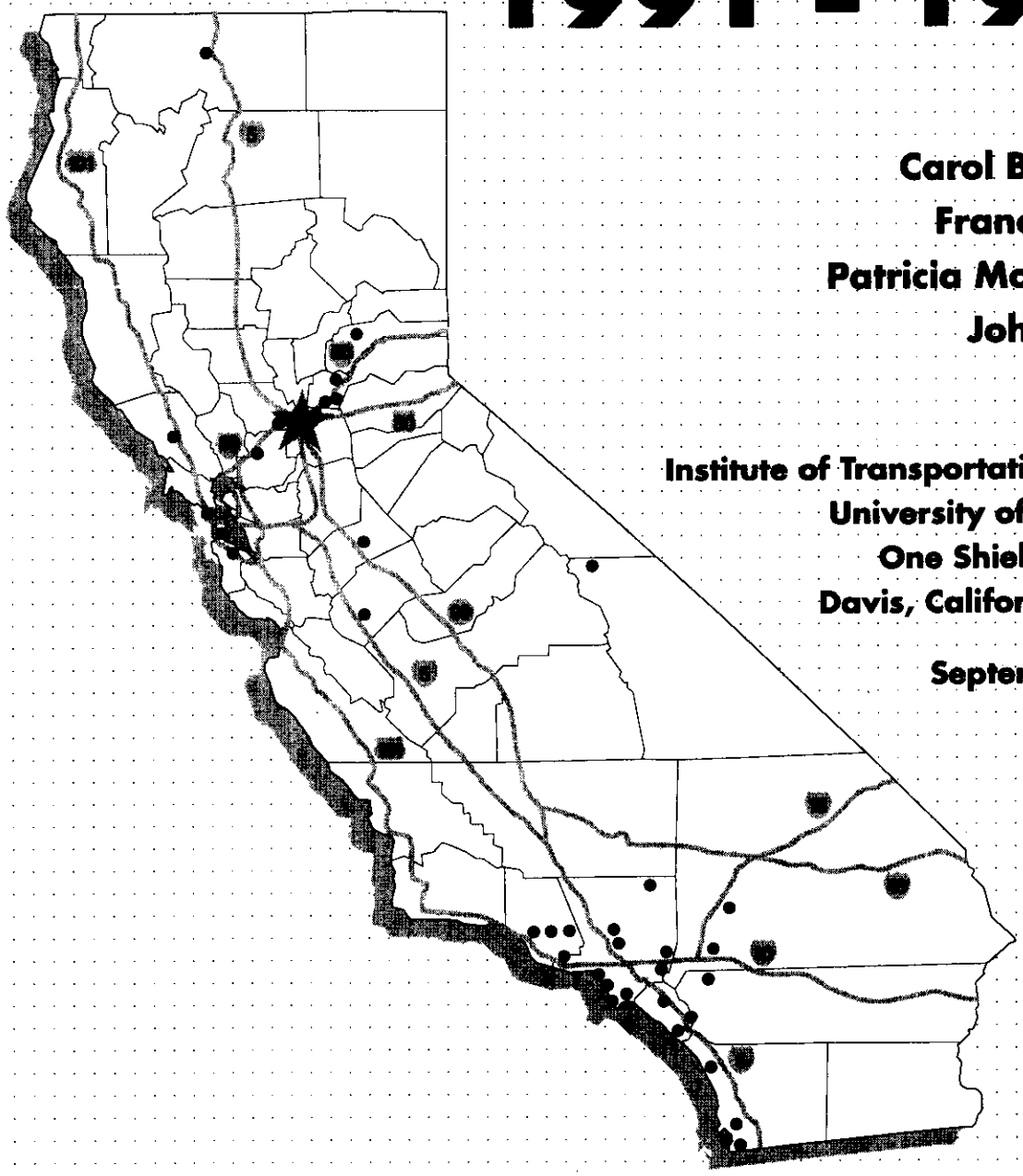
# Telecommuting Centers in California: 1991 - 1997

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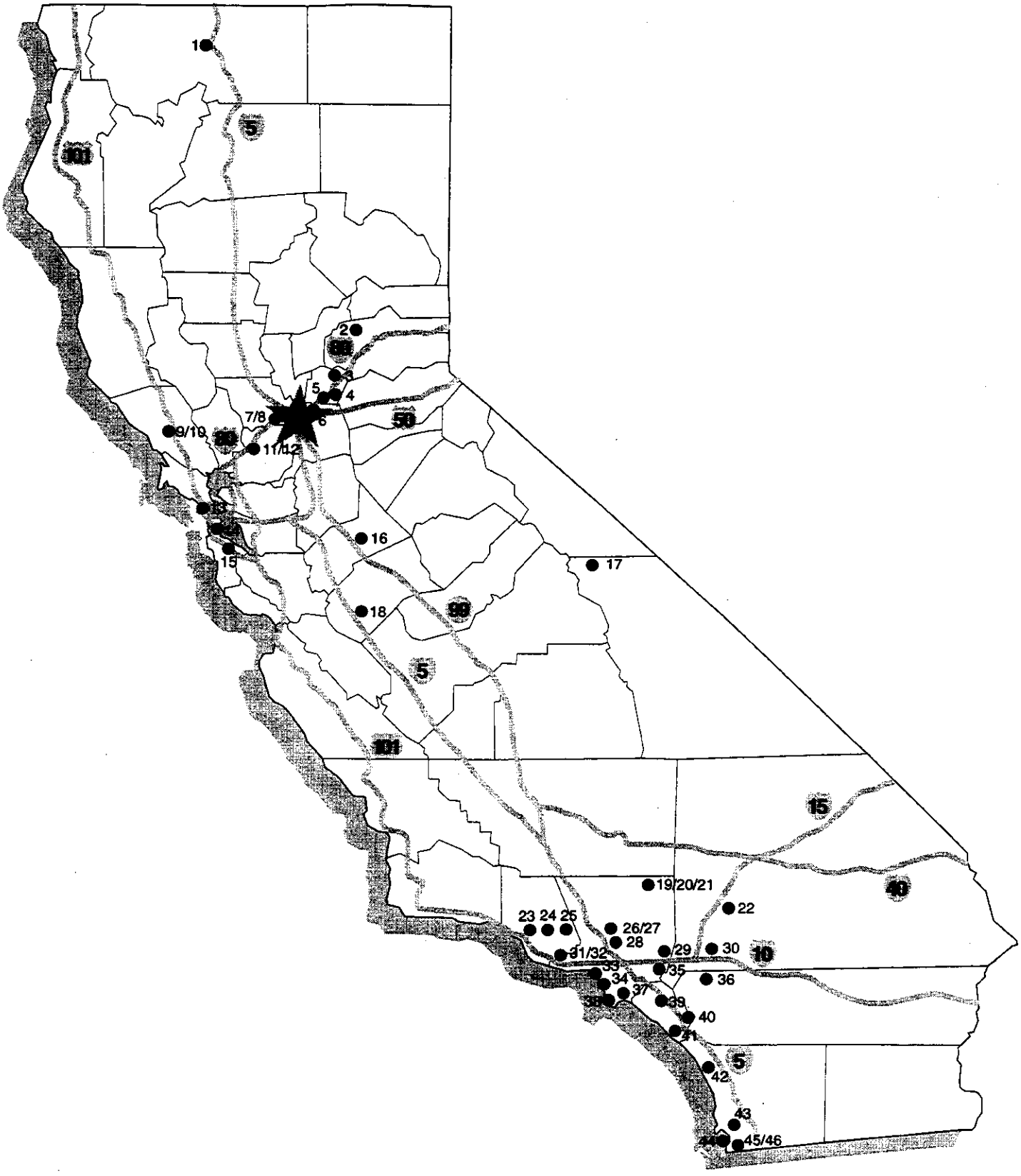
Prepared for the California State Department of Transportation (Caltrans) and the Federal Highway Administration under Interagency Agreement No. 60T381/A-4

1. Siskiyou Resource and Business Center*
2. Grass Valley TeleBusiness Center*
3. Auburn Telecenter
4. Roseville Telecenter*
5. Rocklin Telecenter
6. Citrus Heights Telecenter
7. Davis Telebusiness Center
8. Birch Lane Telecenter
9. Santa Rosa Telecenter (US GSA)*
10. Sonoma County Transit Telecommute Center
11. Vacaville Telecenter*
12. Ulatis Telecenter
13. San Francisco Hoteling Center (US GSA)*
14. Concord (Bay Area Telecommuting Development Program)
15. San José (Bay Area Telecommuting Development Program)
16. Modesto Neighborhood Telework Workcentre
17. Bishop Paiute Telework Center*
18. Los Banos Telecenter*
19. Antelope Valley Telebusiness Center Phase I*
20. Antelope Valley Telebusiness Center Phase II*
21. Antelope Valley Fair Telecommuting Center
22. High Desert Telebusiness Center*
23. Ventura Community College Telecenter*
24. Moorpark Community College Telecenter
25. Simi Valley Telework Center
26. Santa Clarita Valley Telecommuting Center (US GSA)*
27. Santa Clarita Telebusiness Center*
28. Valencia Corporate Telecommuting Center*
29. Ontario Telebusiness Workcenter
30. Highland Telebusiness Center*
31. Thousand Oaks Tele-Community Center*
32. Thousand Oaks and Westlake Telecommuting Center (US GSA)
33. Sherman Oaks and Van Nuys Telecommuting Center (US GSA)
34. Santa Monica City College Telecenter
35. Pomona TeleBusiness Workcenter*
36. Telecommuting WorkCenter of Riverside County
37. Blue Line TeleVillage*
38. Long Beach TeleBusiness Center*
39. Landmark TeleBusiness Center*
40. Mission Viejo+
41. The TeleBusiness Center of San Juan Capistrano*
42. Oceanside Community Computer Center*
43. East County San Diego Tele*Community Centre
44. Coronado Telecenter
45. City of Chula Vista Eastern Telecenter*
46. City of Chula Vista Downtown Telecenter

* Operating as of June 1997
\+ Planned




California Telecenters

# TELECOMMUTING CENTERS IN CALIFORNIA: 1991 - 1997

Prepared for

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by

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**Disclaimer**

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## REPORTS AVAILABLE FROM THE RESIDENTIAL AREA-BASED OFFICES PROJECT

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"The Transportation Impacts of Center-Based Telecommuting: Interim Findings from the Neighborhood Telecenters Project", by Prashant N. Balepur, Krishna V. Varma, and Patricia L. Mokhtarian. Forthcoming *Transportation*, 1998.

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# TELECOMMUTING CENTERS IN CALIFORNIA: 1991 - 1997

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# INTRODUCTION

This is the final in a series of reports describing the status of known telecommuting centers in California. Previous reports were published December 1993, December 1994, and September 1995. These reports were prepared in support of the Residential Area-Based Offices (RABO) Project, known informally as the Neighborhood Telecenters Project, a project conducted by the Institute of Transportation Studies at the University of California, Davis (ITS-Davis), under the sponsorship of the State of California Department of Transportation (Caltrans) with funding from the Federal Highway Administration. The project involves implementing a number of telecommuting centers and evaluating their effectiveness as a work environment and as a transportation demand management strategy. Originally planned as a two-year project, the RABO program was extended to five years to allow sufficient time to monitor the operations of the centers developed under it, and is now in its final year of operation. In addition to the centers implemented by the RABO project there are at least 19 telecommuting centers operating in California and several others in planning stages. This status tracking report and its predecessors document the development and operations of telecenters in California for the period of time 1991 through the first part of 1997. Besides reporting on developments occurring since September 1995, this document includes information from the previous reports. Text from previous reports is referenced to make this a self-contained compendium on the track record of telecenters in California during this period.

This document is divided into a preliminary section, main body, and appendices. The preliminary section consists of this introduction; a section on terms and definitions; and summary discussions on general telecenters information, facilities and equipment, marketing, charges and usage rates, as well as a general discussion on the status of centers in California. The main body incorporates detailed summaries on the status of specific telecenters, including operating (24), planned (1), and closed (21) telecenters. The section on existing centers is further subdivided into centers which participated in the RABO program fiscal year 1995-1996, its last fiscal year of site operations assistance (5), and those which did not (19). There is also a small section on planned centers (6) tracked in previous status tracking reports which were never

opened. Attached appendices include a contact list for all centers described as well as tables detailing the information contained in the front sections on operations, physical facility characteristics, and usage. Appendix A summarizes information on types of employers and types and sources of funding or donations; Appendix B details marketing strategies used and the reported outcome of each. Documented facility characteristics (Appendix C) include number of workstations, number of conference rooms, square footage, and types of equipment. Operational information contains fee schedules for workstation use and other services (Appendix D) offered by the centers, while usage information summarizes number of users and the frequency of use on average (Appendix E). Telecenter operating dates are included in Appendix F. A contact list of developers and/or site operators for all telecenters described in this report is contained in Appendix G. This and other reports are or soon will be available on the university's Telecenters web site (http://://www.engr.ucdavis.edu/~its/tcenters/tc.stm). This web site also offers a map of California showing both planned and operating telecenters; more detailed information on centers displayed on the map can be obtained by clicking on the highlighted site.

All information for this report was obtained through telephone interviews with site administrators and project managers. That perspective should be kept in mind in evaluating the information presented here. Also, information was current at the time it was obtained, but many details are subject to rapid change. Thus, reports of characteristics ranging from number of telecommuters, occupancy, and types of equipment to status of the centers themselves should be understood as representing a snapshot at one point in time.

## TERMS AND DEFINITIONS

This section more fully describes some of the concepts used in this document, and offers definitions of terms specific to the state of California.

*"Regular" telecommuters v. teleworkers:* For purposes of the RABO study, a distinction is drawn between the different types of users in the telecenters. For those telecenter users using the center as a regular work location as opposed to casual or drop-in use, the distinction is made

between "conventional" telecommuters, and self-employed users or small businesses employing the center as their primary place of business (the latter two groups are referred to in this report as "teleworkers"). Conventional telecommuters are considered employees of an agency or firm who have a main office elsewhere, and who would otherwise be commuting to work. The transportation impact in vehicle miles travelled can thus be measured, since the alternative to telecommuting is known. Self-employed users, on the other hand, do not have a fixed alternative work location and can determine where they work. The impact on travel generated is therefore unclear. As a trip-reduction measure, telecenters may offer the greatest benefit to conventional telecommuters; but as a natural venue to promote and assist small business development, use by self-employed workers may create a greater revenue stream to centers and enhance their operational stability.

*Executive suites* are differentiated from telecenters by the segment of the market they appeal to and the services they provide. Traditionally, executive suites' clientele tend to be composed of entrepreneurs and regional sales staff who use the suites as their primary place of business for an extended period of time. Executive suites provide services such as secretarial, wordprocessing and receptionist support; in essence, an executive suite provides all the support services supplied in the main office. Telecenters in this report were mainly developed to mitigate traffic congestion and emissions by alleviating employee commutes, and thus are considered an alternate work location. Because the purpose of the RABO project was to assess the travel impacts of centers established as transportation control measures, executive suites were not included in the study. However, the distinction between the two appears to be becoming more blurred as telecenters in California are now diversifying both clientele and services; and interestingly enough, at least one executive suites company reports experiencing an increase in use by employers and employees for commute mitigation.

Certain terms used in this report are specific to the state of California, and often specific to certain regions. For ease of understanding, definitions are provided below for agencies or funding sources common to several centers.

*AB 2766 Subvention Funds* are state monies from fees levied on motor vehicle registration in designated air quality non-attainment areas. AB refers to assembly bill; this bill was signed into law for all areas in the state with the exception of the Sacramento and the San Francisco Bay areas. Similar laws for those areas were signed into effect in 1988 for Sacramento (AB 4355) and in 1991 for the Bay area (AB 434). These funds were created to ensure that air quality districts had the funds necessary to implement their expanded responsibilities for emissions monitoring and controls under the California Clean Air Act of 1988. Some of these monies are made available on a competitive basis to projects (such as telecenters) which seek to reduce emissions.

The *Inland Empire* refers to a region in Southern California composed of Riverside, San Bernardino and a portion of east Los Angeles counties. The *Inland Empire Economic Partnership* is a council of representatives from the cities and counties of the region plus individual businesses. This agency conducts programs and acts as a mediator to attract investment into the region and to assist businesses in locating to the area. As part of the Inland Empire's cooperative economic development effort, the *Inland Empire Telebusiness Partnership* was formed in March 1994 as a joint effort between the telecenters in the Inland Empire region. Membership comprises the Highland Telebusiness Workcenter, the Pomona Telecenter, the High Desert Telebusiness Center, and until its closure in 1997, the Ontario center. The purpose of the partnership is to enhance viability of center-based telecommuting through cooperative marketing and outreach.

*Metrolink* is a regional commuter rail system operating throughout northern San Diego county, Los Angeles, Orange, San Bernardino, Riverside and Ventura counties.

*Petroleum Violation Escrow Account* (PVEA) is a federal trust fund created to provide compensation to energy users who were overcharged by oil companies that violated federal oil price control regulations. Funds are available to state and local jurisdictions (cities, counties, or regional planning agencies) to finance projects and programs for energy conservation.

*Ridelink* is an agency in the San Diego region under contract to the San Diego Association of Governments (SANDAG) to provide commute program assistance, such as rideshare matching, van pooling or telecommuting, to employers in the region. Ridelink also acts as a central information source for different transportation modes in the region, and maintains schedules for rail and transit lines. As part of the overall commute program assistance, Ridelink provides employee transportation coordinator training.

*Smart Communities* is a project developed by the State of California Department of Transportation to design a framework to blend community telecommunications networks and distributed settings throughout such communities for the remote delivery of services, telework, distance learning, telehealth, telecommerce and other applications of telecommunications technologies. Objectives are to provide greater access to public information and services for all sectors of society; to allow greater community participation in public policy issues; and to provide interactivity between government services and the community for items such as license application/renewal, social and health services transactions, and permitting. Communities involved in developing linked networks for smart communities applications include the City of Davis and the City of Chula Vista; organizations and telecenters involved in smart communities efforts include the Grass Valley TeleBusiness Center in conjunction with Nevada County Community Network; the Davis Community Network; Net at Two Rivers; and the Blue Line TeleVillage.

The *Southern California Telecommuting Partnership* (SCTP) was an association composed of public and private organizations, and was active in the regions encompassing Los Angeles, Orange, San Bernardino, Riverside, and Ventura counties. The objective of the partnership was to promote the use of telecommuting, both home- and center-based, as an alternate work strategy. The partnership was formed in 1994, headed by the City of Los Angeles, in response to the Northridge earthquake. In 1996, after two years, it was dissolved. While active, the SCTP developed marketing and training programs, designed and produced marketing materials, and provided technical assistance and financial support to telecommuting programs in the region.

## GENERAL INFORMATION

Telecenters in California are operated and supported by both private and public personnel and funds. Most centers are operated by public agencies such as a local city or county organization, the United States General Services Administration (US GSA), or a regional Transportation Management Association (TMA). Others, such as the San Juan Capistrano Telebusiness Center, are operated by private entrepreneurs using both public and private funds. Many centers received public funds in the form of grants or in-kind services and private donations in the form of donated equipment or in-kind services. Some centers rely on one or two major sources of funding; for example, the US GSA-run centers report only the US GSA as a funding source, and the Vacaville Telecenter is mainly supported by the Yolo-Solano Air Quality Management District. Other centers utilize many different grant and equipment donations from multiple sources: the Compton Blue Line TeleVillage and the Highland Telebusiness Center list more than 10 agencies and private companies as funding sources. As centers attempt to become self-sufficient through user fees, most are reporting only two or three major funding sources.

Most telecenters offer facilities in addition to telecommuting workstations to attract a larger clientele and as revenue-generating sources for the center. Most of the additional amenities offered are office and multimedia equipment that can be used by regular and drop-in clients. The most standard facilities available include videoconferencing facilities and access to the Internet. For the centers that reported information on center services, all but the Bishop Paiute Telework Center offer videoconferencing. Some centers have established distance learning classes with their local state or community colleges including: the Antelope Valley centers with California State University, Northridge; the Chula Vista Eastern Telecenter with the University of Phoenix and National University, with San Diego State University to follow; the Compton Blue Line TeleVillage with California State University, Dominguez Hills; and the Los Banos Telecenter with Merced Community College. In conjunction with the development of their respective cities as a "Smart Community", the Highland Telebusiness Center and Chula Vista telecenters offer access to on-line city information and services. The Santa Clarita Telebusiness Center offers wide area network connections to local schools, city offices, the hospital and other local services. Additional uses can also include training classes such as computer training at the

Anaheim Telebusiness Center. A couple of centers, such as the Anaheim Telebusiness Center and the Long Beach Telebusiness Center include secretarial assistance as an additional service to users. Employer types at these centers include representatives from the public sector and the private sector. Employee occupations include students; state, county and federal workers; bookkeepers; engineers; real estate workers; and lawyers. Appendix A provides more detailed information about each center.

## FACILITIES AND EQUIPMENT

The size of telecenters and the range of facilities offered varies greatly, with telecenter size ranging from 420 square feet to 14,000 square feet and from two to forty computer workstations. The average size of the reporting open and closed centers is 3,036 square feet. Additional facilities include videoconferencing equipment and Internet connections. Most centers include workstations and computer equipment for at least five users with an average number of twelve workstations for the open centers. Some centers provide private offices for use by tenants, with the number varying from one to ten private offices for all currently operating telecenters. Although most workstations are separated by movable partitions, site administrators are learning that many clients prefer separate office space. Most telecenters also include at least one separate conference room for client use. Additional facilities include kitchenettes, lounges, reception areas, training rooms, and classrooms and multi-media labs.

Most telecenters are equipped with IBM-type personal computers; some centers also provide Macintosh computers as well. Standard equipment includes shared laser printers, fax machines and copy machines. Approximately half of the open telecenters which provided information on equipment report having videoconferencing systems: most facilities offer PictureTel 1000 videoconferencing systems. Most videoconferencing facilities consist of separate equipment housed in a separate conference room in the telecenters. A few centers such as the Highland Telebusiness Center also have desktop computers with videoconferencing capabilities. Additional telecenter equipment can provide users with access to CD ROM libraries and document scanning capabilities. Appendix B provides more detail on each center.

## CHARGES

Telecenter users can be charged by the hour, day or month, with most telecenter price schedules listing workstation and private office prices by the month and conference and videoconference facilities by the hour. Centers also charge for faxing and printing, either by charging a per page rate or by including fax and copy facilities in the daily/monthly charges. Tenants are usually billed for long distance fax and phone charges. Monthly charges for all centers range from no charge to $460.00 per month. Daily prices for a workstation range from $12.00 to $60.00, and hourly conference room charges range from $10.00 to $35.00. Hourly charges for videoconference facilities normally range from $10.00 to $175.00: the Long Beach Telebusiness Center will charge up to $410.00 per hour for 24 bands of videoconferencing and an attending technician. Most of the charges for faxing and copying are comparable between telecenters, with copy charges ranging from $.03 to $.08 per copy and fax charges usually ranging from $.25 to $2.00 per page in and out. Other services that users can be charged for include voice mail, ISDN/Internet connection, computer rental, document scanning, home page design, secretarial services, word processing, and data input.

Most centers determine price schedules by comparing market prices for similar services and by determining what prices the market in the area will support. Most site administrators are also amendable to adjusting conference room, videoconferencing and workstation charges to accommodate the needs of individual users. Price schedules usually differ between regular users and drop-in use, with a reduced price and more services offered to users who agree to be regular tenants of the telecenter. Appendix C provides more detail on each center.

## MARKETING

Most of the marketing tactics used by site developers and administrators (see Appendix D) employed print media of some form: approximately one-half of the open centers used direct mailings to employers and employees; three-fourths of the open centers advertised via fliers; and three-fourths of the open centers used press releases. In addition, one-half of the open telecenters have set up sites on the World Wide Web and list their web pages as a marketing tactic for the center. Successful centers appear to be characterized by a diversity of marketing approaches.

In particular, the developers from the Antelope Valley Telebusiness Center and the Highland Telebusiness Center report using twenty or more different marketing tactics. Also, the Long Beach Telebusiness Center and the Santa Clarita TeleBusiness Center report utilizing more than 15 different marketing tactics including newspaper advertisements, direct mailings to employers, newsletters, radio ads and web page promotion. These four centers report the highest occupancy rates relative to all open and closed centers (see Appendix E). Some of the most used tactics are also the least expensive, including press releases and contact referral.

Lack of reporting from the closed telecenters makes it difficult to determine the variety of marketing tactics used. Most site developers were unable to report on the outcome or the cost of the different marketing strategies for their centers. As a result, it is difficult to infer the relationships of different marketing tactics to the relative success (or failure) of the centers. Developers at the closed centers may not have reported their full breadth of marketing activities, and it may not be that insufficient marketing leads to closure of a center; but it does appear that a diverse range of marketing techniques is a factor towards successful centers.

## OCCUPANCY RATES

Telecenter administrators reported having from zero to 45 regular users of their telecenters with an average of eleven regular users. Monthly occupancy rates are determined by dividing the number of occurrences per month by the product of the number of workstations and the number of working days in the month. Consequently, the more workstations a telecenter has, the more users are needed to increase occupancy rates. Occupancy rates also depend on how frequently the contracted telecommuters use the telecenter. For example, the Compton Blue Line TeleVillage, Los Banos Telecenter and Sonoma County Transit Telecommute Center all reported five regular users of the centers, but the occupancy rates can vary because of the different number of workstations and different frequencies of use. Five one-day-a-week users of the Compton Blue Line TeleVillage's two workstations equates to a 50 percent occupancy rate; five regular users of the Sonoma County Transit Telecommute Center's four workstations provides a 38 percent occupancy rate (implying an average frequency of 1.5 days per week by each user); and five

"regular" users of the Los Banos Telecenter's eleven workstations translates to a 27 percent occupancy rate (implying an average frequency of 3 days per week). The Antelope Valley Telebusiness Center and the Long Beach Telebusiness Center, two centers with the most workstations, are reporting two of the highest occupancy rates at 60 percent and 81 percent, respectively. The occupancy rates for the RABO telecenters are calculated on actual user sign-in logs maintained on-site; the reported occupancy rates for non-RABO centers were obtained from site administrators and may be casual estimates rather than the product of careful record-keeping. Inaccurate occupancy rates could also be reported if site administrators count all leased workstations as occupied. A workstation may be reserved for use, but unless it was actually used for the day, it was not included in the RABO calculations. Reserved workstations rates are important for revenue calculations, while actual occupancy rates are important for effectiveness and transportation impact evaluation.

Ten of the eleven reported occupancy rates at the closed telecenters were less than 25 percent; the reported occupancy rates ranged from one to 38 percent. In contrast, three fourths of the open RABO and non-RABO telecenters are currently reporting occupancy rates greater than 25 percent.

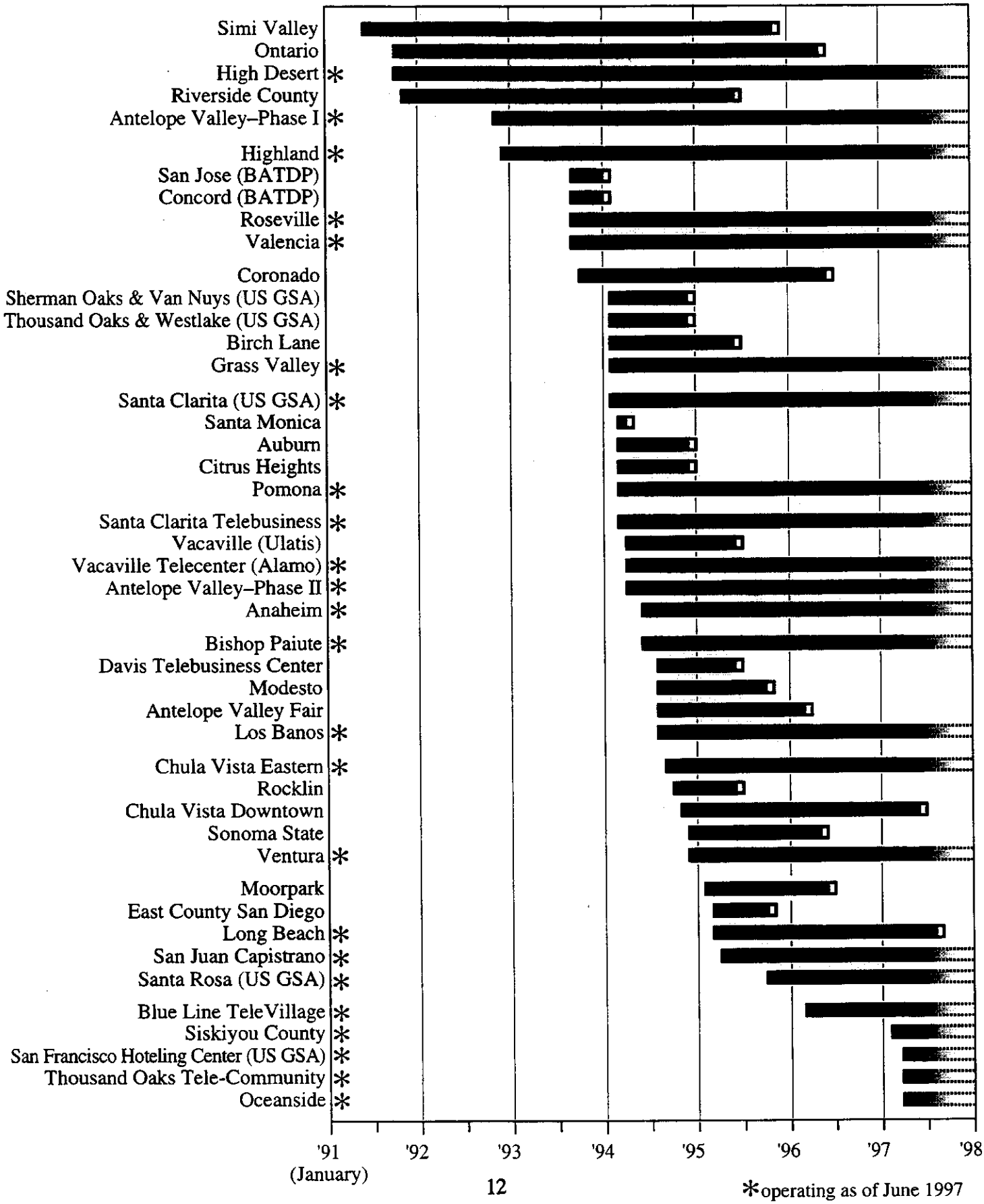
# DISCUSSION

Telecenters in California are administered by a variety of governmental agencies (normally a municipality or regional Transportation Management Agency) and private concerns; they are situated in commercial, industrial, and residential areas; and they range in size from six workstations to more than 30 workstations. The state of these centers continues to be quite dynamic. Since 1991 45 centers have opened, 21 have closed and one is planning to close in the next few months. As of June 1997 (the date of this writing), 23 are operating and plan to remain open. The average life-span of currently-operating centers is 36 months; in this group, the shortest time a center has remained open is 12 months (Blue Line TeleVillage), and the longest, almost 5½ years (High Desert). By contrast, the average operating term for closed centers is approximately 20 months; the minimum amount of time open is two months (Santa Monica City College Telecenter), and the maximum is about 4⅔ years (Ontario). Overall, the average life-span of all centers in California, both operating and closed, is about 28 months.

In terms of the actual time-frame, the majority of centers opened in 1994, and the majority of those which closed did so in 1995 (see timeline graph next page, and Appendix F).

| Year | Number Opened | Number Closed | Number Planned | Planned, Never Opened |
|---|---|---|---|---|
| 1991 | 3 | | | |
| 1992 | 2 | | | |
| 1993 | 6 | | 6 | |
| 1994 | 24 | 3 | 5 (4 from 1993) | |
| 1995 | 5 | 11 | 8 (3 from 1993, 1 from 1994) | |
| 1996 | 1 | 6 | 7 (1 from 1993, 1 from 1994, 2 from 1995) | 4 (1 from 1993, 2 from 1995, 1 from 1996) |
| 1997 (*projected) | 4 | *2 | 1 | 2 (1 from 1994, 1 from 1995) |

# Timeline of Telecenters in California






*operating as of June 1997

Perhaps because of their somewhat volatile history and the perception of risk involved in establishing a telecenter, fewer now appear to be planned; and plans for several centers were dropped after feasibility studies indicated a likelihood of limited use. Issues around continued funding, economic self-sustainability, and corporate acceptance of telework continue to affect usage levels and ultimately the lifespan of individual telecenters. Centers which have closed have done so mainly due to inadequate funding and low attendance. Management resistance to the concept of telecommuting persists, and marketing the centers is difficult, time-consuming and labor-intensive.

The closure rate of telecenters in California, however, is not wholly explained by resistance to telework. Lack of continued funding and the inability to achieve self-sustainability are actually a reflection of issues at the planning and conceptual stages critical to later functioning. From the outset, the centers were established with conflicting goals and definitions of success. Centers were mostly conceived as publicly-funded short-term demonstration projects; the expectation of economic self-sustainability often did not become the critical criterion for success until later. Without the necessary planning or resources, however, that expectation has proven nearly impossible to achieve. The outcome has been confusion between the viability of telecenters as a concept and their implementation as successful independent enterprises. For many centers, factors preventing long-term viability included overly-short planning and start-up phases; planned obsolescence, or a lack of long-range planning; and an inadequate funding process. Subsidiary conditions included an incomplete definition of target markets and little margin for contingency maneuvering. All have impacted operations in adverse ways and contributed to general instability. Developers have had to formulate different strategies in response to these challenges while maintaining operations. At the heart of the question of telecenters in California are considerations about the nature of the centers and the rationale for developing them; and how centers should be administered and funded, whether through the public sector with public funding, or as public/private partnerships, or as wholly private enterprises with no public involvement.

Almost all centers in this report were established as transportation demand management strategies by public agencies, either for traffic congestion mitigation purposes or to help achieve air quality emissions standards; some were also established with added regional economic development

objectives. Most were established as pilot projects or as feasibility studies with reporting requirements to funding agencies. As mechanisms to evaluate the impacts on travel behavior and vehicle emissions, the centers have been successful. Preliminary analysis of RABO center users shows a significant reduction in total vehicle miles travelled on days when users worked from the centers with a corresponding decrease in vehicle emissions. (A more detailed discussion can be found in *Residential Area-Based Offices Project: Interim Findings Report on the Evaluation of Impacts*, listed with other reports produced by the RABO project at the beginning of this report.) Collecting this type of information would be nearly impossible outside the forum of publicly-funded and -operated programs.

However, the planning and operations processes involved in establishing a center to collect data are not conducive to developing a model for stand-alone businesses. Demonstration centers were often planned to operate for a limited time with the intention that they would eventually become either privatized or self-sustaining, or cease to operate. To maximize operating time for the funding period and to fulfill reporting requirements, the development phase comprising planning, preparation, and pre-opening marketing activities was often very short. Initial funding was provided for a finite period for both development and operations, and usually extended one to two years with no contingent funding secured beyond that. Development was characterized by quick start-up; operations were specialized to telecommuting.

The short-term nature of test or demonstration projects is counter to long-range planning. It is difficult to make a long-term business plan if expectation does not extend beyond the first twenty-four months. This was noted by the site administrator of the Modesto Neighborhood Telework Centre, who reported during the development phase of the center that although it was desirable to continue operating in the long-term, to do so required an early investment in basic business planning rather than concentrating exclusively on getting space, equipment and customers; and that it was important to avoid rushing to open at the expense of important service, operational and business issues that contribute to the ultimate success or failure of the center. These concerns proved to be somewhat prophetic in the case of the Modesto center, for its inability to very quickly demonstrate self-sufficiency resulted in early closure.

In fact, telecenters function as small businesses and have planning and capital requirements commensurate with their goals. Since telecenters function as small businesses, it is imperative that the operators be experienced in or have knowledge of business management; that there be sufficient time for planning and marketing prior to opening; that the center be capitalized enough to meet its goals; and that a center be established with the view to permanency rather than as a short-lived experiment. Moreover, sufficient time and money must be available to maneuver to meet market demands; and that contingency must be planned for at the outset. All these factors require commitment on the part of the funding and parent agencies. Too short a start-up period and lack of an adequate funding base has compromised the centers' ability to accomplish long-term financial goals.

The amount and type of financing available to the centers has compounded the planning problems. Because the greatest proportion of seed money for the centers has been furnished by the public sector, funding for the centers is often subject to the same principles of public fiduciary responsibility placed upon the funding agencies themselves. It is also subject to the same political processes. For this reason, public funding to the centers can be restrictive in scope and uncertain in both quantity and longevity. This has placed enormous pressure on the center developers. The amount and type of public funding awarded the centers is often highly variable, even from year to year, a factor which has contributed significantly to shortened lifespans for the centers; and political process and agency restrictions can inhibit the entrepreneurial process. In some cases, a moratorium imposed by a funding agency on marketing expenditures at the site level made all but the most basic marketing activities difficult. More importantly, centers have closed early as a result of shifts in political emphasis in their primary funding or host agency. All but one center described in this document report receiving public funding at some point in their development or operating history, with continued heavy dependence on public subsidy. As most centers have not demonstrated self-sufficiency, continued operation has necessitated applications for more and different types of public funds. At this point, almost all are attempting to decrease reliance on outside funding by developing additional revenue-generating services.

One critical area where the combination of short-term planning and limited funds have eroded operations is in the level of staffing. Many centers function with inadequate staffing: at most, centers are often staffed with one key person whose responsibilities may include all marketing functions, operations oversight and duties, bookkeeping/accounting, purchasing, and equipment maintenance; this person is usually supported by an assistant, who may or may not be part-time. The key person can either be an on-site administrator or may function as an off-site overall coordinator. Many people in the latter category have full-time jobs with duties unrelated to the operations of the centers; this is particularly true for the TMAs or the municipalities, which often incorporate oversight and operations of their respective center into already-existing full-time employee positions.

The net result is an overburdening of key administrative functions having a direct effect on the success of the centers. Running a successful center requires the ability to market thoroughly and continuously; the ability to develop and maintain financial reports in order to evaluate the overall financial position of the center and the cost-effectiveness of different activities and investments; the ability to conduct day-to-day operations and maintenance activities, including upkeep of the facility and equipment; the ability to track all relevant information, and, from this, to distill plans for the future. Without the necessary staffing, these important functions cannot all be accomplished effectively.

A particularly critical function is marketing the center. Relatively high attrition rates for center users and the reluctance of many corporate managers to accept telecommuting means that site administrators and developers need to market continuously and aggressively, both to identify potential clients and to overcome resistance. Insufficient marketing leads to depressed occupancy, which often results in diminished support from outside agencies now becoming increasingly chary of funding under-used centers. And although all centers have set some form of fee schedule and are charging for workstation use and other services, most have not yet built a large enough paying client base to cover the costs of operations. Undercapitalized to begin with, many centers continue to struggle to achieve operational and financial stability while increasing usage levels, and uncertain funding compounds the process.

Beyond the difficulty in overcoming corporate reluctance to teleworking are the issues resulting from lack of strong marketing planning. From the outset, the target market was often vaguely defined and the complexity of the marketing function underrated. Hasty start-up and pressure to operate to capacity with limited resources did not allow for contingency planning to respond to the reality of market demand. Many centers conducted some pre-opening demographic analysis and formulated a marketing approach that relied on community outreach via general advertising and mass distribution to reach the desired target market. However, the difficulty in persuading employers to embrace telecommuting as a concept, let alone allowing employees to use a telecenter, was underestimated. Most centers' marketing campaigns neglected incorporating focused employer outreach as a strategy, either because of a lack of funds or staffing, or because of inexperience. Most do not appear to have conducted research on companies employing residents of the areas they serve, instead relying on contacts from lists of companies compiled by air quality management districts. Usage levels for the most part have reflected the limitations in planning and execution.

As a result, most center developers have had to reassess the role of telecenters as part of the larger economic community. Many are redefining the scope of services and expanding the client base they serve while attempting to continue operating. Strategies include exploring different revenue-generating services and increasing the number of services provided; acting as agents for local economic development through small business incubation or by brokering business services; building partnerships with diverse private companies; and acting as access points for delivery of services via the Internet. Centers are now being established with the primary intent to foster local economic development. For example, the Bishop Paiute Telework Center, located on the Paiute Reservation and funded by the Bureau of Indian Affairs, has negotiated a partnership with the local community college and a local temporary employment agency to deliver business services to companies along the I-80 corridor in Northern California. The center provides job training to community members and uses the center as the locus of performance for the business services. The Vacaville telecenter is negotiating a similar arrangement with a local business to use the facility as an after-hours call center. Other developers are establishing their centers as part of larger public service institutions, such as city libraries. The newly-opened center in Oceanside

is part of the public library; the Chula Vista Eastern telecenter is planned to be integrated into the public library system as well, as is the center planned by the City of Mission Viejo. This particular strategy may be one of the more successful in ensuring stable operations, since centers would become part of an established public program with secured funding, while expanding public information resources and performing a community service by reducing public travel.

One important evolutionary direction that some centers are taking is to incorporate services and create community connections as a focus for a smart communities structure. Grass Valley Tele-Business Center is working in conjunction with the local Economic Development Department to provide training for welfare or unemployment insurance recipients wishing to enter the workforce with a stronger skill set. It has also partnered with the local Internet provider, the Nevada County Community Network (NCCN), to offer on-line access to all segments of the community. The county is currently considering how to initiate a program to bring government information and services on-line; the telecenter will be an important access point for such services. The City of Highland is currently preparing to implement a business plan developed specifically to institute a smart communities structure in the region; the Highland Telebusiness Center is the focal point for these activities. Other centers, in diversifying their services, are laying the groundwork for future like structures in their communities. Thus, centers have begun or are planning to provide services such as distance learning, telemedicine, teleshopping, Internet and other information access, training, and virtual commerce through audio- and videoconferencing.

At this point, some centers are beginning to make the transition into self-sufficiency. Two centers, the Antelope Valley Telebusiness Center and Los Banos National Telecenters, Inc., report operating only with fees collected from users; one other center, the Santa Clarita Telebusiness Center, reports that it expects soon to be self-supporting. General factors which seem to have the greatest impact in longevity of a center include: the strong, continued support of the parent organization, whether it be a Transportation Management Association, a municipality, or an Air Quality Management District; integrating the center as part of the local business community and local government; and providing a mix of alternate uses, such as videoconferencing, distance

learning, or on-site training. All of these factors play a part in combination with one another and contribute to the economic health of a center.

Examples of developers who have integrated these components into their centers' operations include the Grass Valley TeleBusiness Center, the Santa Clarita Telecenter, and the Highland Telecenter, among others. The Grass Valley TeleBusiness Center was formed and operates under the administration of the Western Nevada County Transportation Management Association, whose director is very active in the local Chamber of Commerce, the Nevada County Business Association, and the Economic Resource Council. These organizations, largely composed of representatives from the private sector, are concerned with economic development issues for the Grass Valley region. The director has positioned the center both as a participant in these organizations and as an integral part of regional economic development. The result is greater visibility for the center in the local business community, with the outcome that the center receives continual referrals from local business sources, a strong source of revenue. The telecenter director is also integrating job training programs as part of the center operations in cooperation with the local Departments of Social Services and Economic Development. These activities help gain the center credibility with local businesses and agencies as well as providing service to the community, all of which help ensure greater stability for the center's future.

The Santa Clarita telecenter has developed along the same model as the Grass Valley center. The director of the center is also the director of the Santa Clarita Transportation Management Association. The TMA's affiliation with the Valencia Industrial Association, a local business association, has helped generate support and revenue for the center. Additionally, the center provides needed services to the surrounding businesses, such as fee-for-use conference facilities and videoconferencing. These two components, and in particular the revenue generated from use of the conference facilities, are enabling the Santa Clarita center to achieve near self-sufficiency.

The City of Highland has been operating the Highland Telework Center since 1994. This center was originally established as part of a new residential development at the behest of the city council, which required that the center be an integral part of the developer's plans. At the outset,

the developer did not consistently promote the center; however, operations of the center were eventually turned over to the city, which strongly supported the center through a large percentage of its allocated AB 2766 funds and a continual, concerted marketing effort. Usage levels have since increased 125 percent, and the city continues to support the center with the consensus that, although not operating at 100 percent capacity, the center provides a necessary service to the community. For this reason, the city is committed to maintaining the center as a community resource and is currently implementing plans to expand its role as an economic resource to the business community.

All these centers have achieved support both within their respective communities and within their parent agencies. Without the backing of the parent agency, centers can be relatively short-lived. This is particularly true with local governments, such as municipalities, which have a fiduciary responsibility towards the community. Here, concerns about improper allocation of public funds often surface, as well as the fear that the center may be perceived to be in competition with similar private-sector operations. In certain cases if a center operated by such an agency did not quickly prove to be self-sustaining, or able to generate funding without direct financial support from that agency, operations were terminated early in the center's history. There are also times when the concept is simply unpopular with a key individual in the parent agency or in one of the principal funding agencies, and support to the center has been terminated. Cases like these underscore the urgency to moderate reliance on outside funding and develop successful business models of self-sustaining centers.

In a final note, the presence of an anchor tenant can greatly increase a center's chances of success, although too great a reliance on any one client employer may actually jeopardize a center's life if the anchor tenant withdraws its employees from the center. However, many of the more successful or longlived centers have an anchor tenant, including the Antelope Valley and Highland centers. An anchor tenant can provide stability for a center as it becomes established, and can also serve as a model for other employers. An anchor tenant may be useful as part of a marketing strategy, lessening the perception of risk and giving the center a higher profile in the business community. In the main, however, vigorous marketing efforts aimed at a wide range

of both employers and employees must be maintained in order to ensure a diversified, thus healthier, client base. A case in point is the City of Long Beach, which, after assessing the possible financial impact on the center of losing its anchor tenant, decided to terminate operations of the center at the end of September 1997.

While the performance of centers established by or funded by public agencies has been subject to increasing criticism, it is fair to say that as demonstration projects, the telecenters have provided information about the impacts of telecommuting on travel behavior and vehicle emissions which would not have otherwise been obtainable. However, the implementation process has clouded the issue of how feasible telecenters are as a concept and as economic entities; and debate continues over the role of public agencies in opening and operating telecenters. At this point, there appears to be three main options for public sector involvement in telecenters: one, to continue public support without the expectation that the centers become self-sustaining; two, to continue public support as currently practiced and develop a viable business model for eventual self-sufficiency; or three, to discontinue all public involvement, leaving development and operations to be carried out in the private sector.

In the first case, telecenters could either be dedicated facilities for telecommuting to reduce vehicle miles travelled, or they could assume the televillage model as multi-purpose facilities in which telecommuting is only a (minor) component. The argument for maintaining a strong public role in the continued operations of telecenters is that they provide a valuable public service equivalent to that of public transit or libraries. As such, it would not be unreasonable to continue public support, just as public transit is publicly supported; in fact, telecenters could be regarded as another form of transportation, one that enhances mobility. This would require a far greater acceptance and understanding of telecommuting in general and telecenters in particular by government agencies and the general public than is currently the case.

In the second option, centers would continue to develop largely as they are now doing, with public funding supporting the evolution of self-sustaining telecenters offering a diversity of services. Under such a scenario, the telecommuting element of the centers would most likely be a minor

portion of the overall services provided, which could include a mix of videoconferencing, distance learning, on-site computer training and support, and access to information and information technology. Again, the success of this option would require a commitment to making telecenters work; it would necessitate re-defining the goals and nature of the centers, crafting a business plan, and ensuring adequate funding while the transition to self-sufficiency took place.

The third option argues that the foremost mission of publicly-supported telecenters in California has been achieved: to determine the potential of telecenters to alleviate emissions and to reduce vehicle miles travelled. And although public-sector implementation was not optimal from an operations point of view, telecenters still have been proven a viable strategy to reduce pollutants and to alleviate vehicle miles travelled, if used on a wider scale. This having been demonstrated, however, it is no longer necessary nor desirable to continue public support of the centers; continued development can and should take place naturally in the private sector. All three of these options are currently being examined by developers throughout the state; however, it is the second option which appears to be the current trend of most telecenters in California.

As centers have continued to evolve over the last five years, the trend has been to expand both services and clientele. In addition to telecommuting, telecenters have proven to be a natural medium for self-employed and small businesses. They can provide flexibility at low cost for home-based businesses and support for home-based telecommuters; they can, and often do, accommodate a range of usages, from hourly fee-for-service casual use to long-term leased use. Most telecenters now offer conference room facilities, many with videoconferencing capability. Some developers have positioned their centers as community access points for technology and information, and are as heavily patronized by members of the community for general purposes as by regular telecommuters. As far as serving as remote work sites for telecommuters, telecenters often offer an environment more suitable to concentrated effort than the home office; some employees are not suited for home-based telecommuting for a variety of reasons, and often the home environment is too distracting to be an effective workplace.

Centers which participated in the RABO program in its last fiscal year of site support consist of the Chula Vista Downtown and Eastern Telecenters, The TeleBusiness Center in San Juan Capistrano, the Grass Valley TeleBusiness Center, the Vacaville Telecenter, and the Ventura Community College Telecenter. Since September 1995, five RABO sites closed and one previously-established center, The TeleBusiness Center in San Juan Capistrano, was included in the program. The five closed centers are: the Coronado Telecenter, the City of Chula Vista Downtown Telecenter, the Moorpark Community College Telecenter, the Modesto Neighborhood Telework Centre, and the East County San Diego Tele*Community Centre. Of the non-RABO sites, Landmark TeleBusiness Center in Anaheim, Antelope Valley Telebusiness Center, High Desert Telebusiness Center, Highland Telebusiness Center, Long Beach Telebusiness Center, Los Banos Telecenter, Pomona Telebusiness Workcenter, Santa Clarita Telebusiness Center, Santa Clarita Valley Telecommuting Center, the Valencia Corporate Telecommuting Center, and Santa Rosa Telecenter continue to operate. Antelope Valley Fair, Auburn Telecenter, Birch Lane Telecenter in Davis, the City of Chula Vista Downtown Telecenter, Davis Telebusiness Center, Ontario Telebusiness Workcenter, the Simi Valley Telework Center, and the Sonoma County Transit Telecommute Center have all ceased operating since the September 1995 report. As of this writing, the Long Beach telecenter is planned to cease operations in September, 1997. New centers opened in Bishop (Bishop Paiute Telework Center), in Los Angeles (Compton Blue Line TeleVillage), in Oceanside (Oceanside Community Computer Center), and in Siskiyou County (Siskiyou Resource and Business Center).

Executive suites companies which have been associated in some way with centers in this report include HQ Business Centers, Inc., Office Technology Group, and Executive Office Network, Inc. HQ Business Centers in the San Diego region have conducted promotional outreach activities in cooperation with the centers in Chula Vista and Coronado. Office Technology Group operated the Long Beach facility for the City of Long Beach. Executive Office Network took over operations of the Roseville Telecenter in Northern California from the South Placer County Transportation Management Association. Contact information for these companies can be found in Appendix G.

# CURRENTLY-OPERATING RABO TELECENTERS

The RABO project entails the implementation of several neighborhood-based telecenters, whose operations were monitored through regular reports. Effectiveness as a transportation demand strategy was evaluated using surveys, travel diaries, attendance logs and exit interviews. The employee and employer experiences with telecenters were also studied to assess the overall impact of the centers as work environments. Models of preference and choice for telecommuting are being developed to explore market segmentation questions. These studies are documented in other reports available through this project.

Funding for all centers implemented by the RABO program terminated June 1996. Those discussed below remain open with a mix of public funding and user fees and plan to continue operating while increasing their funding base with other revenue-generating services and by networking with related projects such as the Smart Communities project currently in the planning stages.

**Chula Vista**

***City of Chula Vista Eastern Telecenter***

Chula Vista, the second largest city in San Diego County, is a community with 155,450 residents. It is home to one of the nation's largest new town projects, a 34-square mile area that will contain an estimated 24,000 dwelling units at completion. Overall, Chula Vista's population is expected to grow by 40 percent in the next quarter century; this surge in population is, however, served by an increasingly inadequate public transportation infrastructure.

The City of Chula Vista's telecenter project was conceived in 1993 by the City's Environmental Resource Division as one approach to addressing these traffic and air quality issues. Originally, the city developed and operated two telecenters: the Downtown Telecenter, and the Eastern Telecenter. During the period of time that both centers were operating, the telecenter director reports that the two telecenters together saved a calculated 1,554 vehicle miles per month.

However, due to funding constraints, the Downtown center was closed April 1, 1997. The city continues to operate the Eastern Telecenter and plans to merge it with the city library as part of the state-sponsored Smart Communities effort, which is intended to establish city-wide, on-line community service networks to residents. The center would thereby provide public access to computers and the Internet to enhance delivery of services in government, leisure, business, education, and health care.

While the city operates and administers the telecenters project, it has received funding though a variety of sources for both centers. These include Caltrans, the Institute of Transportation Studies-UC Davis, the California Energy Commission via the San Diego Association of Governments, the San Diego County Air Pollution Control District and the Department of Energy via Public Technology, Inc.-Urban Consortium Energy Taskforce. Panasonic donated a videoconferencing system and Cox Communications contributed $50,000 to provide the telecenters with computers and other high-tech equipment. All these sources combined gave the telecenters $691,000 in public and private funds.

In keeping with the city's fundamental objectives of pollution reduction and environmental health, construction of both centers emphasized the use of "green design" materials in their interior fabrication. These included carpeting manufactured of 100 percent recycled bottle caps and partition fabric manufactured from recycled milk bottles; the paint and adhesives were non-toxic with low volatile organic compound content, and the ceiling tiles were designed to reduce "sick building syndrome". Both centers used power-conserving computers, laser printers, and copiers, and had a energy-efficient design emphasizing natural lighting through skylights and superior artificial lighting.

Historically, recruitment for the Chula Vista telecenters has been targeted towards residents of the surrounding communities. Promotional activities have taken the form of mailings, telemarketing, billing inserts, open houses, and press releases. Promotional pieces have also been disseminated to employers through the San Diego Association of Governments (SANDAG) Ridelink program (see introduction), as well as directly. Community-based outreach was emphasized because, in

the experience of the developer, employees will often work to overcome employer resistance and can help champion a telecommuting program internally. The director has found that a combination of employer- and employee-based marketing is most effective. Based on that, recent efforts have focused on an aggressive employer-based marketing campaign in addition to the community outreach; while the immediate results have not been highly successful, it is hoped that many new relationships will eventually grow out of this effort.

The developer plans to form partnerships with both public and private agencies that will allow alternative uses to promote trip reduction and profitability. To that end, long-term business strategies are being developed which include distance learning, telemedicine, and international trade communications. The latter is being considered as a videoconference application because of Chula Vista's proximity to the Mexican border. The target market for this particular service is businesses which have facilities on both sides of the border. The Mexican telephone company has been planning to make videoconferencing systems available on the Mexican side for this very purpose with the ultimate goal of reducing cross-border traffic.

Distance learning has been one of the most successful of the alternate uses explored by the center directors. Partnerships with the University of Phoenix and National University have resulted in classes being conducted at the centers via videoconferencing; San Diego State University plans to follow suit this year. In the case of the University of Phoenix, the telecenter director reports that students taking classes at the center would generate an additional 4,080 miles per month if they had to travel to the University's regional campus, although it is likely that for many students using the center, the alternative would be not to take the class at all. To accommodate National University and San Diego State University classes, a larger monitor for the videoconference system was purchased.

Other successful revenue-generating services include on-site computer classes. The University of California, San Diego (UCSD) provided Internet connections through a project funded by the California Space Institute and sold-out training classes have been provided by The Internet Connection. Panasonic donated new codec cards and multipoint capability for the videoconference

system, resulting in greater connectivity and enhanced video/audio quality. The telecenter also offers rental use of the videoconference equipment.

Chula Vista is hoping to be able to provide telemedicine services. To help realize this goal, Cox Communications is providing a free fiber connection to the UCSD medical center, although the developer is still looking for a sponsor to help fund the telemedicine program. The program would allow users to access medical information via CD ROM before seeing a physician; the program could be further expanded to include a nurse to answer questions through either audio- or videoconferencing.

The Eastern center is staffed by the Telecenter Director, who conducts general marketing and oversees operations. The Telecenter Technology Director position, which was the main staff position for the Downtown center, was eliminated earlier this year due to budget cuts. This position was responsible for developing the videoconferencing and revenue-generating services of both centers, for forming technical partnerships with different organizations, and for the operations of the Downtown telecenter. The City of Chula Vista's Environmental Resource Manager oversees the city's telecenter project, and is responsible for initiating the project and for development and implementation of the two telecenters. Accounting services are provided by the city's finance department; the city also provides technical support for the center's computer systems and custodial services.

The grand opening of the Eastern Telecenter took place August 1994. It is located in a small commercial development bordered on all sides by extensive residential neighborhoods. The local community college is across the street from the center, providing a wide range of educational activities, and most amenities are close by, including child care, banks, a grocery store, restaurants, health clubs, cleaners, fast food, auto repair shops and a drug store.

The center itself contains 1,500 square feet housing ten workstations, one conference room, a kitchen/lounge area, and a reception area staffed by the telecenter director. Seven workstations are equipped with personal computers with 19,200 kbps internal modems and one workstation is

equipped with a Macintosh; the remaining workstations have docking stations for laptops. Peripheral equipment includes a facsimile machine, a Xerox 5320ZTAS copier, a laser printer, and phones with a digital message system. The workstation personal computers are equipped with MS Office Professional, Windows, WordPerfect and other assorted software. For security reasons, the personal computers are not networked. Users have a designated workstation accessed through a security code. Users can install their own software; however, no user files may be kept on the hard drive. The telecenter is equipped with a security access system to allow entry 24 hours a day.

Long range plans for operations include introducing desktop videoconferencing via personal computer. Implementation of an electric vehicle shuttle service, which had been planned as a means to achieve zero emissions travel to and from the telecenter for the users, was suspended following unsuccessful negotiations with the vendor.

At the time of this writing, the Eastern Telecenter had ten telecommuters and an occupancy rate of 41 percent for the ten workstations. This translates into 20.5 telecommuter days per week.

**Grass Valley**

***Grass Valley TeleBusiness Center***

This site was developed and operates under the direction of the Western Nevada County Transportation Management Association. Opened in February 1994, the original facility was located in the basement of the Pacific Gas and Electric Building in downtown Grass Valley, in the Sierra foothills. It had 1,494 square feet containing three cubicle workstations, one private secured office with a workstation, and one private office with two workstations. In July 1995, the telecenter was moved to a larger facility at 640 East Main Street. The new facility is situated between the downtown section and a residential area in Grass Valley and offers approximately twice as much space (just under 3,000 square feet) as the original location. The center now has six cubicle workstations for regular use and an additional four workstations for drop-in use, as well as a conference/videoconference room, and a breakroom/lounge with a refrigerator.

Funding for the center is provided by the Northern Sierra Air Quality Management District, with additional support from the Pacific Gas and Electric Company, which provided the space for the original facility at a reduced rate, and Waste Management, Inc., which owns the building housing the current center and leases it at substantially less than the market rate. Pacific Bell also provided support in the form of donated office and workstation furniture.

Workstation equipment consists of six IBM 486 personal computers, each supported by 28.8 fax/modems and each with a dot matrix printer. The four workstations reserved for drop-in use are also equipped with personal computers and a phone. There is also a shared laser printer and an AT&T Vistium desktop videoconference unit. The Vistium equipment uses the industry's standard language, making it compatible with videoconference equipment from the other major manufacturers. A local-area network was installed in September of 1995 with the assistance of Techtronix, Inc., which provided cabling and the labor to install the network; and in late 1996, Nevada County Community Network (NCCN) provided Internet access and the high-speed connection lines for data transfer. The site administrator has use of a 486 DX.

The center is staffed by one full-time site administrator, who is responsible for the day-to-day operations of the center, and by the director, who has responsibility for marketing and general oversight of the center. Accounting support is provided by the Western Nevada County TMA.

Because of its downtown location, amenities such as restaurants, banks, shopping, dry cleaners and postal services are proximate to the center. There is 24 hour access to the center and inside bicycle storage and showers.

Marketing strategies have been and continue to be primarily directed at recruiting employees through community outreach. Specific efforts in this area include hosting open houses; conducting direct mailings; radio and cable television promotion; and working with realtors, who use the telecenter as a selling point for potential home buyers. The site administrator also contacts employers directly and works with key persons in each company to promote telecommuting and enable employees in the Grass Valley area to use the telecenter. Additionally, the site

administrator has found word-of-mouth to be a very effective source for recruitment. Because the TMA is very active in the local business community's activities, this center receives the general support and recognition of regional employers, which has resulted in increased drop-in use.

The center director is also positioning the center as an adjunct facility for regional economic development. This movement is taking two forms: one, as a community service resource center in conjunction with the local Social Services and Economic Development Departments and the Nevada County Business Association; and two, as a means to attract investment into the region through the center's affiliation with the Nevada County Community Network. The first is part of the local Economic Development Department's programmatic response to providing opportunity to the economically disadvantaged, and involves conducting on-site job training for the unemployed with additional support from the private sector. Through this plan, local firms would "sponsor" a cubicle, providing either computer equipment or a cash donation to equip the cubicle. The equipment would then be used exclusively for training and distance learning activities for unemployed and/or welfare recipients. The second economic development positioning is a direct outcome of the center's partnership with the NCCN. The NCCN not only acts as the local Internet provider, but is also acting in cooperation with regional businesses and local government agencies to bring government and business services on-line. The TeleBusiness Center can act as a point of access for these on-line services.

The Grass Valley TeleBusiness Center currently charges $12 a day or $200 a month for traditional telecommuters or TMA members to rent a cubicle. These users are also given free access to the conference room and videoconferencing (plus toll charges). Drop-in users pay $5 an hour or $20 a day for use of workstations, $10 an hour for the conference room and $50 an hour for videoconferencing. Drop-in users also pay higher rates for faxes and copies. There are currently six regular users who use the facility on average about eleven person days per week. These users are employed in state government positions, in software sales, and in legal publishing.

**San Juan Capistrano**

***The TeleBusiness Center***

The TeleBusiness Center in San Juan Capistrano is the newest member of the RABO project. It originally opened in March 1995 and is located just off Interstate 5 and the Ortega Highway, in the "Villages" section of the Ortega Business Center. It is located conveniently near the downtown Amtrak/Metrolink station as well as a bus stop and a city bike path. The Ortega Business Center offers a variety of services, including a FedEx pickup office, restaurants, a convenience store, day care, a fitness center, laundry and dry cleaning, computer sales and service, professional offices, a bakery, and a florist.

The center has expanded to a total of thirteen workstations: seven private offices, two cubicle-type workstations, and four open-area workstations, which are nested in the corners of a separate work area at the back of the center. In the experience of the site developer, users prefer the privacy of enclosed offices; thus the physical configuration of this center is evolving to provide more private offices and fewer cubicle or open-area workstations. Currently, all seven of the private offices are leased. All workstations are equipped with 486 IBM-type personal computers loaded with Microsoft Office, and both the cubicle workstations are equipped with desk-top videoconferencing capability. The center also offers a videoconference room which can be used as an individual workstation; this room contains a room-sized videoconference screen plus another computer at the opposite end of the room. There is also a training center, which is a conference room/classroom, a break area with microwave and refrigerator, and a reception area with an on-site administrator. In all, there are fifteen computers, 1 scanner, 1 laser printer and 2 ink jet printers, 1 Minolta 5400 photocopier which can produce 50 copies per minute, 2 fax machines, and phone-line access to the Internet. The developer also offers computer classes and will do custom design work for clients' World Wide Web homepages.

The telecenter is run by Pacific Neighborhood Telecenters. Workstations are $7 per hour or $95 for the week. Work space rental for the month is $250 to $600 depending on the type of workstation, projected amount of use, and level of service required by the client; for example, discounts are offered when an employer has multiple users at the facility. Faxes and e-mail are

free for tenants. There are presently eleven users with an average of about five telecommuters per day. Current companies employing workers at the center include Teledyne Control Corporation, Homepeace, Inc., Lund Bookkeeping, SFRI Inc., Digital Motion Corporation, Tech Com, Restec, Inc., and Gredvig Engineering. SFRI Inc. is an incubator business; Restec, Inc., has recently relocated to the area.

The developer of the San Juan Capistrano TeleBusiness center pursues active recruitment and promotion strategies which include contacting employers directly and placing advertisements in area newspapers. The developer also works with the Chamber of Commerce to explore options for increasing attendance. In the last year, efforts have included promoting the center in conjunction with a local golf tournament, giving two hours of Internet access free to all the golfers; this generated a strong response. Additionally, the computer training classes offered on-site are also a source of recruitment for new users.

**Vacaville**

***Vacaville Telecenter*** (formerly Three Oaks Telecenter)

The City of Vacaville opened two centers in July 1994: the Ulatis telecenter and the Three Oaks (formerly Alamo) telecenter. Grand opening ceremonies were held at the end of October 1994 for both. In June of 1995, the City of Vacaville closed its telecenter in the Ulatis Community Center and has since only operated the Three Oaks telecenter, which was expanded from its original 512 square feet to 625 square feet and renamed the Vacaville Telecenter. The Vacaville Telecenter occupies three-fourths of a trailer located adjacent to the Three Oaks Community Center in south Vacaville. Located in a residential area, the center is only a short walk from shopping and dining and is easily accessible from Interstate 80 or bike lanes. There is a public pool at the community center, as well as the Three Oaks Community Park.

Two additional offices in the trailer were secured for telecenter use in 1995. This space has been used to relocate the administrator's office to the site from its former location two miles away, and to provide an extra office for the program manager when needed. The rest of the telecenter is

divided into three rooms: a large central room housing three cubicle workstations, and two adjoining smaller rooms, one with three workstations, and the other with two. All workstations are equipped with desktop computers (two Macintosh Quadra 630s and seven Compaq Prolinea 80486s). There is a separate room in the trailer that, with prior arrangements, can be used as a conference room. All equipment from the Ulatis Telecenter was transferred to the Three Oaks Telecenter. 28.8 modems are being installed to provide Internet connection, and videoconferencing capability is also planned. The telecenter provides coffee, tea and access to a refrigerator and microwave.

Staffing for the center consists of an on-site administrator whose responsibility is to oversee the line staff, which consists of four telecenter assistants who work part-time on a rotating basis overseeing the daily operations of the center. General oversight of the entire program devolves upon the program manager, who is also responsible for all marketing and promotion of the center. The city provided accounting and additional administrative support in the first two years of operation; to reduce dependence on grant funding, these administrative responsibilities were consolidated and assigned to the newly-created position of Telecenter Coordinator. Subsequent turnover left the position unfilled, and the city made the decision to absorb those functions into the Program Manager's duties.

The Yolo-Solano Air Quality Management District provides much of the support for the telecenter through clean air fund grants. The City of Vacaville is also a major contributor, especially through the in-kind contributions of the Telecenter Program Manager. The goal of the Vacaville Telecenter is to become self-sustaining with just user fees. To that end, a fee schedule was initiated in January 1996. When first implemented, the new user fee schedule resulted in a drop in center usage and was consequently adjusted to reflect lower rates. The telecenter director reported that most users were waiting for their employers to develop official telecommuting policies which would provide the employer a mechanism by which to pay the fees, a process which progressed slowly. The center director reported that drop-in users, typically self-employed workers or home-based telecommuters, were willing to pay the usage fees. The current fee schedule is $10 per hour, $25 per day, $75 per week, $200 per month and $25 per month for

students. Currently there are seven regular users who work in the facility an average of one day a week each. Many people also use it on an hourly basis, mostly home-based telecommuters who occasionally need more equipment, and students.

The Vacaville Telecenter is conducting an aggressive marketing strategy aimed at the community. Activities include issuing press releases and sponsoring traffic reports on several radio stations as well as other advertising on the local radio station and regional cable television. KUIC-FM, the local radio station, continues to provide no-fee radio spots promoting the telecenter program, an arrangement due in large part to the telecenter's relationship with the community. This particular marketing tactic benefits not only the Vacaville center, but because KUIC has a broadcast range throughout the I-80 corridor, has resulted in placements for the Grass Valley TeleBusiness Center as well. Other groups and organizations which help publicize the facility include realtors, the community welcome wagon, the Solano County Library, and the Chamber of Commerce. The goal is to increase the occupancy rate and attain self-sufficiency.

Funding by the Yolo-Solano Air Quality Management District will not be available to the center after December 1997. In order to help offset diminished funding and to achieve the goal of self-sufficiency, the center director is negotiating an agreement with a private firm, Telecommuting Technologies Inc., to set up a call center in the telecenter. The call center will operate during non-regular business hours: that is, during evenings and on weekends, thus avoiding conflicts with normal telecommuting hours.

**Ventura**

***Ventura Community College Telecenter***

This is one of two sites established under the direction of the Ventura County Community Colleges District (VCCCD) to facilitate development of district-wide distance learning and integrated administrative videoconferencing programs, as well as to provide community telecenters. Both the Ventura telecenter and the second center, the Moorpark Community College Telecenter, were developed and operated by the respective individual campuses. Due to funding

constraints, the Moorpark center closed in July 1996. The Ventura campus site continues to operate.

The Ventura Community College Telecenter is located on the campus with easy access to food service facilities, a bookstore, library resources, postal services, Federal Express services, and UPS service upon request. It has received grants from the Southern California Telecommuting Partnership (SCTP) and from the college's Economic Development Division.

Ventura College has leased a modular building for this site. Its four cubicle workstations and one private office have personal computers (one 486 PC and four Pentium 166 PCs, all with fax/modems) and phone lines that allow for voice mail service as needed. The center now has Internet access and e-mail accounts for individual users and is also equipped with a conference room, fax machine, copy machine, and videoconferencing facilities.

Both centers received quite a bit of press attention when first opened, and have continued to garner coverage. This publicity, free and unsolicited, was a most effective catalyst for inquiries and recruitment. Marketing activities conducted by site personnel included presentations to county government, city council, various community and professional groups, and at business fairs and technology expositions; direct mailings to local businesses, large regional employers, and the community; hosting open houses with informal presentations about telecommuting; distributing brochures and posting flyers around the campus; surveying the campus student population; and advertising in local and campus newspaper, on radio, and through public service spots.

As part of the overall marketing effort, the site director and administrator, with funding and assistance from the SCTP (see "Terms and Definitions" section), developed a training program which makes use of the center's dual capacity as an educational institution and as an on-campus telecenter. The objective of the program is to help overcome resistance to telecommuting by providing education and training on telework and telecenters and to assist organizations in developing and implementing telework strategies. Organizations which have agreed to participate identify potential telecommuters through an internal assessment process. The telecommuters and

their managers are then provided with free training in one of the college computer labs, followed by a high support period in the center before they actually begin to telecommute. Recruitment and curriculum development began to take place early in 1996, with the first classes being held in April of that year. Initial classes were primarily aimed at county employees, and have had mixed results. While the employees are interested and willing to participate, attendance by managers is much lower. In an effort to generate revenue for the program, the site administrator is currently expanding the program beyond county employees to include private companies, although to date no private companies have taken advantage of the training. As part of this program, a video was produced.

The telecenter currently assesses a monthly charge of $50 times the number of days of the week the telecommuter uses the facility or an hourly charge of $7.50. In addition to the student population which uses the center, there are presently 12 regular telecommuters; on average, the center is used by four of these telecommuters per day. The total number of users per day varies a great deal according to the student calendar.

Staffing for the center consists of a center receptionist, the site administrator, and the telecenter director. Additional administrative, technical and accounting support is provided by Ventura County Community Colleges District.

# CURRENTLY OPERATING NON-RABO TELECENTERS

**Anaheim**

***Landmark TeleBusiness Center***

This center was established in 1993 by the City of Anaheim in conjunction with the Anaheim Redevelopment Agency and the South Coast Air Quality Management District. Until recently, the building was owned by URO Investments, Inc., a private executive-suites firm, which up to March 1997 operated the center under contract to the city. At that time the term of the contract elapsed, and the owner sold the building. The City of Anaheim is no longer involved in any aspect of the telecenter's operations, and currently there is no information about the new ownership. The telecenter is, however, expected to continue operating under the new ownership.

The facility is located in the downtown Anaheim redevelopment area. It occupies the first two floors of the historic Kraemer building, a 7-story building constructed in 1924 and renovated in 1982. In 1994 the center became the first telebusiness center in Orange County. Approximately 6,700 square feet of the building has been renovated and is being used for the telecenter and other purposes at this time, and an additional 6,300 square feet is available for expansion and lease.

The center offers a total of 15 workstations; one conference room; one videoconference room with PictureTel desktop equipment; a computer room equipped with ten personal computers, one color printer, one laser printer and one bubble jet printer; and separate kitchen and lounge facilities with vending machines, a coffee maker, water cooler, and microwave. The facility also houses several private offices on the same floor as the telecenter for its non-telecommuting clients. All computers for the telecenter are networked on a local area network with remote access to clients' offices and to the Internet, and ISDN lines have also been installed to maximize remote-link data transfer. Because the computers provided for the workstations are connected by a local area network, there are no user-designated workstations. This allows greater flexibility for users, who can determine where they work within the center, and provides an additional source of revenue by allowing non-telecommuter drop-in use. Other office equipment includes photocopy and

facsimile machines. The center offers additional support services in the form of voice mail, word processing, secretarial assistance, desktop publishing, computer training, and UPS and Federal Express pickup and delivery. There is free covered parking at the site.

Support for the telecenter was provided by the South Coast Air Quality Management District, the Anaheim Redevelopment Agency and the RABO program. The owner-partnership provided additional support in on-site staff salaries including the site administrator, receptionist, and local area network manager, as well as in the original build-out costs for the telecenter. Videoconferencing equipment was donated by Office Telephone Management; PictureTel has donated the use of its equipment, and the telephone system and voice mail were donated through JPW Telecon and Active Voice, respectively. The workstations are $295 per month or $240 per month without computer. Monthly lease costs for a private office start at $295; use of the conference room is charged at $10 per hour, and videoconferencing is $10 per hour plus any toll charges. The prices for faxes, copies, printing, and secretarial assistance vary for the specific requirements. At the time of this writing, a single regular telecommuter uses the facility full-time.

Marketing strategies for the Landmark Telebusiness Center are focused on recruiting telecommuters from the community. For this reason, a home page was developed and posted to give interested parties a simple way to investigate the center's services and prices. A direct mailing was also conducted targeting residents directly. An outside agency was hired to send out 10,000 flyers and 10,000 postcards, focusing on high potential zip codes in the Anaheim area. In general, however, the operators have found advertising in the local paper to be a more effective marketing tactic than direct mailing.

**Antelope Valley**

***Antelope Valley Telebusiness Center Phase I and Phase II***

The Antelope Valley Telebusiness Center was established as a public/private partnership by the County of Los Angeles. The first telecommuter began using the center in November 1992. The

need for this type of service quickly expanded after the January 1994 Northridge earthquake and a second location was established. Seventy miles or so from Los Angeles, the Antelope Valley is home to half a million people, many of whom commute long distances regularly. Currently, there are five private offices and 55 cubicles at the two locations, both of which are located in the Lancaster Business Park. The first telecenter (TBC1) at 251 East Avenue K-6 has five private offices and 15 cubicles, while the second telecenter (TBC2), located approximately one mile from the first at 321 East Avenue K-4, has forty cubicles. Prices for the use of the centers are $19 per day or $420 per month for a private office and $17 per day or $380 per month for a cubicle. These telecenters are among the few to have apparently successfully completed the transition from federal and local government funding to a client fee funding base. All operating expenses, with the exception of minor staff support provided by the county, are covered by fees collected from the telecommuters and employers who use the telecenters.

A mix of private and public organizations use the centers. A prominent health maintenance organization maintains a strong presence in the second center, securing approximately 70 percent of the 60 workstations for use by its employees. Private sector employers using the first center include a major car rental agency and two private consultants; public sector use is represented by a university, two state agencies and a local regulatory agency. At the time of this writing, the site administrator reports a total of 53 users.

The site administrator reports that the centers have been very successful in saving vehicle miles travelled. Activity reports on telecenter usage compiled by the operators calculate a savings of 1,479,705 vehicle miles travelled and 59,728 pounds of pollutants eliminated in 1996.

In 1995 the centers' director began a laptop rental program to help support home-based telecommuters. Ten laptop computers were donated by IBM which were made available for rent to home-based telecommuters at fairly low rates. The laptops could be obtained at several local businesses and the TMA as well as at the center to make them as accessible as possible to users. This program, while initially successful, entailed a great deal of promotion, and soon proved to

be more costly to administer than was economically feasible. After six months, it was discontinued.

In 1994 the Cal State Northridge campus sustained damage from the earthquake which impacted the number of classes that could be offered at the campus. An agreement was reached between the County of Los Angeles and the campus to arrange for extension courses to be held at the second center for the academic year 1995-1996. The goal was to eliminate the need for 20-40 students to commute to the campus. This service has been very successful: the first classes held in the Spring 1995 were attended by 25 students with a reported savings of 3,974 driving miles per week and a net revenue to the centers of $400 per month; in the Fall 1995 semester, 12 students attended, with reported savings of 18,530 miles, 380 hours and approximately 763 pounds of air pollutants. In 1996, students using the distance learning facilities saved an additional 763 pounds of pollutants. More importantly, it gave students the chance to take classes who might otherwise not drive to take them.

In the spring of 1996 the first center (Phase I) received an Intel videoconference system from the Southern California Telecommuting Partnership, making it possible for the center to expand its videoconferencing capabilities.

Marketing tactics for the centers have been diverse. Using a grant from the Ford Foundation, a video and brochures were produced, and several laptop computers were acquired. Other activities include advertisement on cable TV, frequent mailings, several open houses, and participation in trade shows; media coverage has resulted in feature stories on television and in the newspaper. The site administrator also pursues a particular marketing strategy which has proven to be successful, and which consists of conducting on-street in-person surveys of passers-by to elicit interest, information about the respondent's employer, and contact information. Respondents' employers are contacted with the goal of giving a marketing presentation and securing users. The site administrator conducts the initial surveying process several times a month, and estimates the number of successful interviews at between one and five per month.

Staffing for the centers consists of a full-time administrator who handles the daily operations and marketing of the centers, a project manager who provides general oversight, and a support staff person who collects and posts all revenue received, maintains the centers' financial ledger, and directs the centers' bills to the appropriate county department for payment. The center support function requires approximately 10 to 15 percent of these two employees. The site administrator's and project manager's time are covered by the telecenters' revenue; the staff support position is provided as in-kind funding to the telecenters by the county. All three are employees of the County of Los Angeles.

**Bishop**

***Bishop Paiute Telework Center***

The Bishop Paiute Telework Center opened in June of 1994 on the Paiute Reservation. The center is a business enterprise of the Bishop Paiute Development Corporation. The United States Department of Health and Human Services and the Bureau of Indian Affairs funded most of the building and start-up costs, and a private foundation supports its operation. There are currently six workstations, half of them with Internet access.

This center is fundamentally different than most of the other telecenters in this report. It is designed as a means of regional economic development, to attract business investment to the area and to provide good employment opportunities for community residents. The main function is to provide services to businesses. These services include inbound call processing, World Wide Web graphics and design packages, and other remote business support services. The operators are also planning to provide medical claims processing, which is normally outsourced to firms overseas.

**Compton**

***Compton Blue Line TeleVillage***

The Blue Line TeleVillage celebrated its opening in March of 1996 and includes a variety of elements. Established by the Los Angeles County Metropolitan Transportation Authority, the TeleVillage is the sixth telecommunications project that is under the management of the Los Angeles Metropolitan Transportation Authority. The agency has also provided support to five other projects, including the Antelope Valley Telebusiness Center, Santa Clarita Telebusiness Center, Long Beach Telebusiness Center, Pomona Telecommuting Center, and Rancho Palos Verdes Telework Center.

The purpose of the TeleVillage is to use telecommunications to help meet the needs of the predominantly black and Hispanic, largely middle-class, community of Compton. The center is located within the Compton Transit Center building, across the street from the Compton Metro Blue Line Station. Its primary focus is on reducing non-commute trips by bringing education, social services, and government transactions closer to the community through a system-wide telecommunications network. It was also planned to serve as a community resource center for local economic development through small business incubation and by increasing employment opportunities for community members through job training services and access to on-line job information. Another program to provide on-site county staff to assist customers with issues such as marriage or birth certificates or social security administration is currently in development stages. This program, called the circuit rider program, is planned to operate either by maintaining a small county office on-site, or by having an individual representative from the county be available on-site during certain times to provide assistance.

Delivery of information services is provided through a series of electronic kiosks which give up-to-date data on housing, jobs, and transit. The telecenter has a computer lab with twelve IBM Pentium 75 computers and has two dedicated telecommuting workstations. There is a Desktop Intel Proshare videoconference unit, as well as access to e-mail and the Internet. With a PacBell Education First Grant, a distance learning program with Cal State Dominguez Hills was started, and classes are now underway. Connections were originally planned to be accomplished through

the use of an existing fiber-optic communication system in the rail line right-of-way. The objective was to link the site with participating government institutions, educational institutions, and other organizations. However, this alternative proved to be too costly, and the connections are instead accomplished through the use of ISDN lines. The center also provides workstation and videoconferencing equipment.

The center operator reports five teleworkers using the center currently, each averaging one day a week for an occupancy rate of approximately 50 percent. There is one attorney, and most of the others are self-employed.

The TeleVillage charges its users an annual membership fee of $10 for adults, $5 for students, $20 for families, and $50 for organizations. Seniors can use the facilities free of charge. The following organizations have also contributed to the TeleVillage: the Metropolitan Transportation Authority, Federal Transit Authority, Caltrans, the City of Compton, Pacific Bell, Los Angeles County Libraries, Southern California Telecommuting Partnership, GTE, the Compton Police Department, the Los Angeles Housing Authority, the Los Angeles Museum of Science and Industry, On Target Communications, Software Creations, the Inner City Computer Society, and NFL-Youth Education Town.

The initial marketing plan targeted rail stations along the Metro Blue Line in south central Los Angeles, with emphasis placed on soliciting endowments from private donors, equipment vendors, and participating government organizations. Workshops were held at the Compton Transit Center to introduce the TeleVillage concept to the community and to allow organizers to get feedback on the project from community-based organizations. As a result, the organizers were successful in eliciting the direct involvement of neighborhood residents early in the project. An advisory board composed of the members of community organizations was formed with the intention of fostering discussion and advice on the selection of the providers of information and services, the community-based programs, and the details of day-to-day marketing and operation of the TeleVillage.

More recently, the TeleVillage has been marketed directly to the community that it serves. This includes posting flyers in different parts of Compton and Los Angeles, which brings in about 30 percent of its patrons. There are also public service announcements on local radio and cable television stations, and the center has been profiled on television news programs.

**High Desert**

***High Desert Telebusiness Center (previously known as Apple Valley TeleBusiness Workcenter)***

The High Desert Telebusiness Center (referred to as the Apple Valley Telebusiness Workcenter in previous status tracking reports) operates under the direction of the Mojave Desert Air Quality Management District (MDAQMD). The center was established by the Inland Empire Economic Partnership, which opened the center in October 1991 and operated it until September 1993, when the MDAQMD assumed direction. At the end of September 1996, it was moved from its original location in Apple Valley, in the high desert area of San Bernardino County, to the headquarters of the MDAQMD in Victorville.

The new High Desert Telebusiness Center has eight workstations as well as a copier, fax, and voice mail. Workstation computer equipment consists of 6 Gateway Pentium P5 120 MHz and two Intel personal computers equipped with videoconferencing capabilities. The center also offers room-sized videoconferencing capability through the PictureTel 1000 videoconferencing system.

Rent is $247.44 per month for a workstation with telephone, voice mail and use of office equipment. Additional fees are charged for telephone toll charges. Currently four telecommuters are each using the center approximately 2 days per week on average. All are San Bernardino and Riverside County employees.

Staffing for the center consists of a manager who performs all marketing and operations tasks and is on-site Tuesdays through Thursdays; however, the center is available to telecommuters seven days per week.

The center has worked with the Dennis Galbraith Marketing service and used billboard advertising to target employees. The billboard advertising did not result in any placements, but was considered useful in terms of general promotion. Other activities pursued in the past have included direct mailings and flyer distributions to businesses and to residents in the community, as well as press releases. An executive plan to target employers in outlying areas "down the hill" such as San Bernardino, Los Angeles, Riverside, and Orange Counties was being considered, but for the most part, large marketing efforts for this center have been suspended. The center manager is continuing to actively market the center on a smaller scale through means such as trade shows, expos, and community-based outreach efforts.

**Highland**

***Highland Telebusiness Center***

The Highland Telebusiness Center in San Bernardino County was originally established as part of the East Highlands Ranch development, a residential development in Highland eventually planned to encompass approximately 2,800 residential units. Approval of the development plans by the city council was contingent upon inclusion of the center as part of the plans. It was operated by East Highlands Ranch, Inc., for a brief period of time, at which point operations oversight and responsibilities were turned over to the Inland Empire Economic Partnership (see "Terms and Definitions" section). It thus became one of three centers, including those in Ontario and Riverside, operated by the IEEP. Subsequently, on January 1, 1994, an agreement was reached by the city council and the Partnership to transfer management and operations responsibilities for the Highland center to the City of Highland.

Currently, there are six permanent and two temporary workstations and a conference area in the center's 1,200 square feet of space. The center is equipped with seven 486 and two 133 MHz Pentium computers; one fax machine; an overhead projector; a television with VCR; two copiers, one portable and one standard donated by Medaphis Physicians Services; and four videoconference systems: two Intel Proshare 200 desktop systems, one PictureTel 100 desktop system, and a PictureTel 1000 room-sized system. One of the seven computers is supplied by the Inland Empire

Work Exchange for the exclusive use of four San Bernardino and Riverside County employees who work at the center. The Inland Empire Work Exchange is an agency formed cooperatively by the San Bernardino and Riverside counties as a facilities exchange to reduce employee commuting. As part of this program, the Work Exchange places employees in telecenters. Remote access to clients' main offices and to the Internet is accomplished through a local area network connected to a wide area network. Remote access is also available through phone line (internal modem). Additionally, Medaphis Physicians Services maintains two computers linked by a CSU/DSU (computer server unit/data server unit) for dedicated use by its employees.

The Highland Telebusiness Center is also joining with the state-sponsored Smart Communities program, intended to use telecommunication technologies to improve communication throughout the community, from residents to businesses to the government. The extent of the city's participation, the location for development of access, and timeframe for participation are currently being evaluated. The Highland center is a member of the Inland Empire Telebusiness Partnership, and supports the Inland Empire Small Business Incubator through the loan of one of its Intel Proshare 200 desktop systems. The incubator was formed as a means to encourage the growth of small businesses in the region. It serves multiple needs, providing free training and consulting in the areas of general and financial management, government procurement processes, and serves as an information link for financing opportunities and for government assistance.

The Highland Telebusiness Center currently has nine participants with six active regular users. Four telecommuters use the facility almost daily; the others use the center less regularly. The rent is $100 per month for a workstation reserved for a month for a regular telecommuter. However, in reviewing fee schedules of similar centers in the region, the director determined that current fees charged by the Highland center are comparatively low. To increase the revenue base and to provide greater flexibility to the clientele, a fee schedule was developed based on amount of usage, and includes hourly, daily and weekly rates as well as the monthly rate. The center currently receives AB 2766 Subvention funds from the South Coast Air Quality Management District (see "Terms and Definitions" section) which covers the majority of operating costs.

Previous sponsors have included Caltrans, Intel, PictureTel, Pacific Bell, Hewlett Packard, East Highlands Ranch, Inc., the Hon Company, Patton Sales Corporation, and Instant Print Shops.

The Highland Telebusiness Center is being marketed to telecommuters directly as well as appealing to likely businesses. Past activities have entailed radio and newspaper advertisements, telemarketing to employers, and extensive networking with other centers in the area to maximize marketing resources and coverage. Centers involved in these efforts have been the High Desert TeleBusiness Workcenter, the Telecommuting WorkCenter of Riverside County, the Pomona Telecommuting Center, and the Ontario Telebusiness Workcenter. Current activities include continuing the newspaper and regional radio advertising, both of which elicit moderate responses, and periodic advertising in a local church bulletin with distribution to 5,000 members. In addition, the center has its own Internet web site. This and a targeted direct mailing campaign have proven to be the most effective means of promotion. The direct mailing consists of three separate postcard mailings: one to selected residents in surrounding communities; one to the employers in the larger geographic region; and one to small businesses in the area. Recipients of the residential mailing are selected by income and job classification. The center's web site has generated many inquiries regarding the center. The Highland Telebusiness Center is also a member of the Southern California Telecommuting Partnership (SCTP), which helps support the center with grant funding and promotion such as public transit postings and the inclusion of an ad for the telecenter on the SCTP web page.

This center is one of the longest lived in the state. The developer attributes this longevity to the fee schedule, which is low relative to the rest of the market; to the on-going and successful marketing of the center; and to the patronage of Medaphis Physicians Services, which maintains a strong presence in the center and acts as an anchor tenant. While heretofore the center has been largely dedicated to long-term telecommuting clients, a new fee schedule offering daily and hourly use options is being developed. Moreover, the city is planning to more strongly integrate the center into the local business community by establishing programs to foster small business growth. These plans include allowing small businesses access to videoconferencing equipment both on-site and on a loan basis off-site; and providing a point of access to the Small Business

Administration's funding information. In conjunction with these plans, a marketing strategy targeting Chambers of Commerce has also been developed and is being implemented.

All management functions for the center are conducted by a full-time manager with the assistance of an intern with a one-year term of employment. Seasonal assistance is provided by two students who perform odd jobs as necessary.

**Long Beach**

***Long Beach Telebusiness Center***

Conceived and developed by City of Long Beach, the Long Beach Telebusiness Center had its grand opening March 15, 1995. Due to budgetary constraints, the city has decided to terminate operations of the center at the end of September, 1997. Although the center reported a 97 percent occupancy rate, most of the use was by one employer, who had relocated the business's offices to the telecenter. Little if any reduction in vehicle miles travelled was realized by the employees, a circumstance which did not fulfill the traffic congestion and emissions mitigation goals set by the main sponsoring agency. Without the participation of this major employer, occupancy would drop drastically, and despite different marketing activities, there were no other employers expressing interest in using the center. Moreover, the videoconferencing component of the center, in which the city had invested heavily in hopes of offsetting general operating costs, did not generate the expected use. Overall, it became evident that the center would not return enough profit to justify continued operations. Most of the support for the center had come from AB 2766 subvention funds and the Los Angeles Metropolitan Transportation Association (LAMTA), with in-kind funding from the city in the way of some administrative support services. With outside funding sources dwindling, the city decided to close the center rather than using general funds to maintain its operations. As of the end of September 1997, the project is expected to break even: continued operations would run a deficit.

The facility itself is located at the juncture of Interstate Highways 710 and 405 and comprises 5,500 square feet housing ten private offices arranged around 27 open-area workstations, a large

conference/classroom (equipped with video and teleconferencing equipment), a full kitchen/dining area, and a copier/fax/mail room; on-site parking is also provided. The operators offer 24 hour secured access to the building. The site is surrounded by amenities including restaurants and child care, and is adjacent to a residential neighborhood.

Until January, 1997, the Long Beach Telebusiness Center was managed by Office Technology Group, Inc./Alliance Business Centers Network. Staffing by OTI consisted of two on-site administrators who managed and marketed the center and two off-site staff members wo performed financial and general administrative duties. To conserve costs, the contract between the city and Office Technology Group was not renewed, and the City's Department of General Services assumed operations responsibilities. As mentioned above, the center receives support chiefly from the MTA, the City of Long Beach, and user fees. Workstation charges and lease costs for private offices are based on the lease length, with workstations ranging from $300 to $450 per month and private offices ranging from $350 to $600. There are currently around 35 regular users of the facility with an average of 30 people using it every day.

The center has videoconferencing equipment and had hoped to rent use of this equipment to generate a strong revenue base, but received almost no interest in it. After the large initial capital outlay to purchase the equipment, the center managers tried to build enough of a user base for the videoconferencing component to recover costs. To do so, they targeted local businesses who might have need of the facilities, and explored the possibilities of partnering with area colleges for distance learning programs and with the local hotel industry to attract the business clientele. However, none of these plans proved fruitful.

Marketing for the center was originally targeted to large companies subject to the South Coast Air Quality Management District's emissions regulations. As these regulations became less strict, later marketing efforts focussed on smaller companies and on employees living in the community near the center. To do this, the Long Beach Telebusiness Center employed a marketing group to assist it. Analysis conducted as part of the planning stages of the center showed that 61,810 employees commute out of the Southeast Harbor Region of Los Angeles County every day, and

that eight thousand of those employees live within a one-mile radius of the center. Center marketing was thus initially planned to include the entire region, but to be primarily aimed at these employees. This was accomplished through a series of presentations to business groups, trade organizations and Chambers of Commerce, as well as to specific companies. The MTA participated by supplying additional employer contacts. Center operations and promotional activities were also coordinated with other telecommuting organizations in the region, including the local chapter of the Telecommuting Advisory Council (TAC) and the SCTP. Until recently, information on the City of Long Beach telecenter was displayed on the Web sites of both the City of Long Beach and the SCTP (at http://www.sctp.org); however, with the city's decision to close the center, all marketing activities have been suspended.

**Los Banos**

***The Los Banos Telecenter***

The Los Banos Telecenter is located in downtown Los Banos, a town near Interstate 5 in the San Joaquin Valley which serves as a bedroom community for South Bay Area (e.g. San Jose) commuters. It is owned and operated by National Telecenters, Inc., a California corporation. There are three open-area workstations, eight private offices, and a conference room in the facility. The center is equipped with ISDN service and Centrex Service. Videoconferencing is available on an on-call basis, for up to 15 people at a time. The costs of the offices and workstations vary by services and space required and by the length of commitment by the individual client.

The Los Banos Telecenter is being marketed towards both employers and the general community. Five of the private offices are currently leased and there are about three telecommuters working in the center per day, on average. The telecenter reports being entirely self-supporting at the time of this writing.

Merced Community College utilizes the telecenter's videoconferencing facilities for distance learning. The college is located approximately 40 miles from the center, resulting in substantial

savings in mileage, time, and air pollution every time remote classes are held in lieu of conventional classes. The developers of the Los Banos Telecenter hope to establish contracts with other colleges in the region to conduct classes using their videoconferencing equipment.

**Oceanside**

***Oceanside Community Computer Center***

The City of Oceanside, in conjunction with the public library, held grand opening ceremonies for a new telecenter in April 1997. Operational since February, the center is designed to be a community resource for access to computing and information technology. It thus accommodates a range of uses, including individual drop-in use for word-processing and business applications and access to various diverse types of software for resume preparation, tax preparation, and tutorials, as well as educational software for all levels from preschool to high school. Training classes on a variety of topics are also conducted on site, and have proven to be very popular: subjects extend from the Internet and home page construction to wordprocessing and resume preparation. Classes are taught by volunteers from the community. A large CD ROM library is maintained on site, and new donations from various organizations continue to add to the collection. There are separate workstation facilities for telecommuting.

The center director reports that community response has been enthusiastic. By the end of June, 2,481 users had registered, and the center had recorded 5,122 visits for various purposes in the month of June alone. The telecommuting component has been growing slowly: currently, there are five telecommuters using the center on a regular, weekly basis; several others are awaiting installation of dial-up capability for access to remote sites. Internet access is currently available.

The center is located in the civic center two blocks from the city's public library and near a major transit hub for buses and trains. It is close to the downtown area, to restaurants, a museum, and the beach. The facility occupies approximately 3,000 square feet. Parking is free. Hours of operation are Mondays through Thursdays 10:00 AM to 9:00 PM, Fridays and Saturdays 10:00 AM to 5:00 PM, and Sundays 12:00 to 5:00 PM. Use of center facilities is by reservation. Non-

telecommuting use is reserved in two hour blocks, telecommuting use in eight hour blocks. Users are required to sign user agreement forms. Fees are charged for printing (15 cents per page), and phone use ($2.00 per day). There are no charges for workstation use or Internet access. The center offers use of 30 computers, three of which are Macintosh; all are equipped with integrated software applications, including Microsoft Office 97 and Clarisworks, and are networked through a LAN to a laser printer and the CD ROM library. High-speed data transfer and Internet access for each workstation are provided through ISDN. Twelve of the computers are located in a training room, and there are four office cubicles with telephones for telecommuting. One workstation is handicap-equipped: it has an adaptive keyboard with an oversized monitor. A conference meeting room is also available in the civic center. In the CD ROM library, there are over 136 products including a street atlas for the United States, tax preparation software, and various tutorials. Both CD ROM and video tutorials are available for instruction in computer software applications. Other support equipment consists of typewriters, a facsimile machine, photocopier, and scanner.

Staffing is provided by a program manager who is responsible for general oversight; on-site personnel consists of two full-time supervisors and four part-time assistants who work rotating shifts. All are library employees. Seven volunteers supplement the paid staff.

Start-up funding was provided by the California Energy Commission through Petroleum Escrow Violation Account funds and by the City of Oceanside from its general funds. The center was established as a branch of the library and is a permanent program in the library's budget. As such, funding from the city's general account is expected to continue. Some of the software installed in the workstations and the Proxima LCD overhead projector panel were donated by other organizations. Both the center director and developer for the City of Chula Vista telecenters have been actively involved in the planning for the center.

Marketing is aimed at a variety of users. The developers have advertised at Ridelink (see "Terms and Definitions" section) meetings and have mailed information to businesses and residents, and are conducting presentations to local business associations such as chambers of commerce and the

Rotary Club. A brochure is being developed. The center has received exposure through the local media and has been reported on in the local newspaper, cable television, and business magazine. The program's effectiveness is being measured in several ways: through in-depth user surveys, through logs documenting number of users, hours and frequency of use, attendance in classes, and mileage saved, and through service satisfaction surveys and suggestions for improvement. Plans for the future include expanding the number of classes and volunteers, continuing to form partnerships with other organizations, and increasing capacity as necessary.

**Pomona**

***Pomona Telebusiness Workcenter***

The Pomona Telebusiness Workcenter opened in March 1994. Developed by the City of Pomona with a grant from the Los Angeles Metropolitan Transportation Authority, it is currently being operated and managed by the city. The facility consists of 3,200 square feet housing three open-area workstations, eight private offices, a conference room, a training room, a reception area, and a kitchen. There are ten Hewlett Packard 486 PCs and one Macintosh Quadra 650 that connect to two laser printers and a wide carriage dot matrix printer. The telecenter also has videoconferencing, utilizing PictureTel 1000 and Intel ProShare systems. The center is located near the freeway and is a short walk from a Metrolink (see "Terms and Definitions" section) stop.

Formerly, the chief external funding source was from the Los Angeles County Metropolitan Transportation Authority. Since this grant ended, the telecenter has been supported from user fees and from an Air Quality Management District subvention fund. Monthly rent is $125 for the workstations and $350 to rent an office full time. There are currently six regular users from five different employers. Of these, half use the center a couple of times a week and half use it every couple of weeks.

To develop an early client base, pre-opening marketing activities were conducted which took the form of talking to commuters directly at the Metrolink station and at bus stops as well as

contacting large and small businesses. Later activities included direct mailings to key personnel in companies listed on an AQMD contact list, as well as mailings to local businesses, distributing and posting flyers at transit stores and day care centers, advertising in the local newspaper and on cable television, hosting open houses targeting businesses, and promotion through utility billing inserts. Direct mailings were also used to promote the videoconferencing services to local businesses. As part of the overall business plan for the center, outreach and promotional activities are coordinated with the other Southern California centers including the High Desert Telebusiness Center and the Highland Telework Center. The Pomona center will continue marketing to businesses identified as having employees living in the Pomona Valley area. Employers will be mailed a letter of introduction followed by telephone contact and in-person presentations.

**Roseville**

***The Roseville Telecenter***

Opened in September 1993, the Roseville Telecenter was the first of four telecenters developed by the South Placer County Transportation Management Association. The other three were the Auburn Telecenter, the Citrus Heights Telecenter, and the Rocklin Telecenter, all of which closed within two years of opening. Management and operation of the Roseville center were subsequently transferred to Executive Suites Network, a private executive suites corporation headquartered in Sacramento. Current information on the status of this center was not made available for this report. The following information is from the December 1994 Status Tracking Report:

The Roseville Telecenter includes 1,662 square feet consisting of 16 workstations, a conference room, copier, fax, modem, computers, printer, phones and voice mailboxes. Amenities include dry cleaning pick-up, proximity to restaurants, day-care, banking, and close proximity to the Johnson Ranch Racquet Club. Future amenities are to include an on-site health club and restaurants.

**Santa Clarita**

***Santa Clarita Telebusiness Center***

Officially opened on March 15, 1994, the Santa Clarita Telebusiness Center continues to operate in the building it shares with the Valencia Corporate Telecommuting Center. It is located in the Industrial Association building adjacent to the TMA office and the Valencia Industrial Association office, and within walking/biking distance of residential areas. The center is a public-private partnership run by the Santa Clarita Valley Transportation Management Association with support from the Los Angeles Metropolitan Transportation Authority, which provided a two-year grant, as well as Intel Corporation, Lockheed California Company, The Newhall Land & Farming Company, Pacific Bell, PictureTel, Southern California Edison, Microsoft, and XO Technologies. Other major contributors have been International Business Machines, which donated twenty 486 PCs, and the facility owners, Newhall Land & Farming, which donated the telecenter space rent-free for the first year, enabling the developers to offer the center rent-free to telecommuters for the first three months of use.

The Santa Clarita Telebusiness Center contains 3,500 square feet of space and has 15 open-area workstations, five private offices, fax/copy/mail services, and a videoconference room with a capacity for 40 to 50 people. The center was retro-fitted with fiber optic wiring, ISDN, and a satellite dish on the roof. This equipment comprises a Wide Area Network (WAN) connecting the center with schools, city offices, the hospital, newspapers, and other groups. In addition, the center operates a shuttle service to residences in the Santa Clarita Valley. In the past year the center has fully installed Windows 95 and built-in faxes within the computers, and has added scanners to the range of equipment offered.

The conference facilities are used by the local Economic Development Department, the local college, and by private businesses for teaching and training classes; the Valencia Industrial Association holds its meetings in these facilities as well. The conference room is reserved for these purposes almost daily and often at night and on weekends. The private offices are currently rented to five different employers. About 25 to 30 telecommuters and teleworkers use both private offices and workstations each day. Current users include an Internet provider, a general

contractor, a graphic artist, a security firm, and a state senator's office, which has established a satellite office in the telecenter.

Marketing analysis conducted prior to opening showed that 60 percent of workers in the Santa Clarita Valley commute out of the valley each day. Round-trip commute distances range from 75 to 125 miles. Moreover, Santa Clarita residents average 40 percent higher income than those in the Los Angeles region as a whole, implying that there are more white collar workers, hence more potential telecommuters, in the Santa Clarita Valley. Marketing for the center was thus planned to encompass both the regional communities surrounding the center and major employers of residents in the area. Early plans intended to increase general awareness of the center through newspaper articles and radio advertisements; employer outreach was to be accomplished through direct contacts with employees and corporate executives.

Marketing activities since opening have followed the early plans. Newspaper advertisements have been somewhat successful at generating inquiries and increasing awareness in the community. An intensive employer-outreach campaign was conducted in 1995 with moderate results. The primary targets of this activity were Chief Executive Officers and Employee Transportation Coordinators. Contacts were obtained from both Dunn and Bradstreet listings and a list provided by the South Coast Air Quality Management District; a brochure and folder describing the center were mailed to all companies in Los Angeles County with employees living in the telecenter's zip code. More recent plans de-emphasize major employer outreach and are aimed at the local community, taking the form of presentations to local businesses and groups, with a continuing focus on community residents through advertisements and articles in local newspapers, and by distributing flyers.

The Santa Clarita Telebusiness Center has one full-time employee, the Executive Director, who is on-site four to six hours daily and does both administration and promotion for the telecenter. The executive director is also the director of the Santa Clarita TMA. The center retains the services of a bookkeeper who works approximately two days per month, maintaining the center's accounts and preparing the monthly billing; an accounting service prepares all taxes. One of the

tenants receives reduced rent for performing receptionist services. Technical maintenance and assistance on all videoconferencing and computer equipment is performed by a computer technician, who is paid on a quarterly basis.

This center is nearing self-sufficiency. By far the largest portion of the revenue generated comes from use of the conference facilities and office rental. As indicated above, many diverse organizations use these facilities on a frequent basis, which helps to promote the center and maintain high visibility in the community. For example, use of the facilities by the Valencia Industrial Association, an organization whose membership comprises 300 of the local businesses, helps bring new business into the center on an on-going basis. Moreover, all the private offices are filled; the center director plans to expand the number of private offices and decrease the number of cubicle workstations, since clients express a decided preference for the private offices. Currently, all operations and rental costs, with the exception of the director's salary which is partially underwritten by the TMA, are covered by revenue accrued from conference room, office, and workstation rental charges. Expanding the number of private offices will help increase usage, and cover at least part of the director's salary.

Among other issues facing telecenters is the need to keep pace with the continuous growth in technology. The director regards telecenters in general as natural testbeds for new technology, and recommends soliciting participation from computer firms to use telecenters for technology demonstration purposes.

Over the long range, the director views telecenters in general as an intermediary step between commuting to the normal workplace and home-based telecommuting, particularly as home-based telecommuting gains ascendancy through better data and communications links. In her view, new housing in the near future will be automatically wired for high-speed data and communications links, obviating the need for telecenters in general, which may gradually phase out.

**Siskiyou County**

***Siskiyou Resource and Business Center (formerly called the Interlink Telecenter)***

The Siskiyou Resource and Business Center opened March 1, 1997. It was developed and is operated by the Siskiyou County Economic Development Council with funding from the Rural Development Agency through a Rural Business Enterprise grant. Furniture was donated by Pacific Telesis.

The center is located in the Siskiyou County Economic Development Council Building in downtown Yreka. It is a commercial area in a town of 7,500 people with restaurants, stores, and other businesses nearby. The center has five workstations, three equipped with Pentium 100 MHz computers with internal modems; each workstation is connected to the Internet. Peripheral support equipment includes shared printers, a copy machine and a fax machine. The center has reserved space for an additional 15 cubicles for expansion.

The center was established primarily as a means of economic development through small business incubation and by increasing employment opportunities in the region. The first is to be accomplished by providing small businesses use of space and equipment; more importantly, the center provides businesses access to the Internet and telecommunications advances. The second approach is to attract telework businesses into the region through a "turn key" operation, a program developed in cooperation with a local temporary employment agency and the Community College of the Siskiyous. In this program, employers can contract out specific job functions through the center. Employees are recruited by the temporary agency, who then becomes the employer of record, and trained to the employer's specifications by the college. Types of job functions envisaged for this program are information management jobs, such as data entry and medical claims processing. The target market is mainly businesses, both public and private, from Sacramento down through the Bay Area.

The center also offers casual and drop-in use of space and equipment aside from the economic development component. The fee schedule for both is $5.00 per hour or $25.00 per day; longer term lease arrangements are negotiable.

The marketing plans for the Siskiyou Resource and Business Center include presentations to Sacramento and Bay area companies, Internet demonstrations for local business owners, lectures at the Community College, and widespread press coverage throughout northern California. At present, Economic Development Council personnel provide administrative support. Once a large enough commercial presence is established, the telecenter will be privatized with an on-site manager paid by fees from center customers. Plans are to expand this type of operation throughout Siskiyou County over the next decade and to develop a strong telework culture that can diversify the economy and improve area employment.

**Thousand Oaks**

***Thousand Oaks Tele-Community Center***

Grand opening ceremonies for the Thousand Oaks Tele-Community Center were held on April 17, 1997. This center, established by the City of Thousand Oaks, is operating as a demonstration project on the diversity of applied telecommunications technologies. As part of the project, a study on the feasibility of different telecommunications applications is being conducted. Funding for the center is mainly provided by the City of Thousand Oaks, which is underwriting all development, start-up and operations costs, and by private donations of equipment and furniture. The feasibility study is funded by Caltrans. Center operations have been contracted by the city to the Ventura County Economic Demonstration Association (VCEDA); Ecotek, a private consulting firm, is conducting the feasibility study.

As a demonstration project, the center is designed to explore applications for emerging telecommunications technologies in the areas of business incubation information, on-line delivery of government services, distance learning, videoconferencing and remote work. Sections of the facility are dedicated to separate applications: one section, for example, showcases telecommunications technologies developed by the Navy that have potential applications to business and community services. Another section is constructed to show the similarities between the normal work office environment and a home-based office, demonstrating that work can often be accomplished independent of location.

In its capacity as a technology demonstration center, the Thousand Oaks Telecommunity Center is being used for presentations on distance learning through the Consortium for Advanced and Technical Education (CATE) and as part of the Virtual University Teleconference, a state-wide teleconference comprising state universities and regional community colleges and hosted by San Diego State University. The distance learning component has been of great utility to the community. Ventura County is one of the largest counties in California without a state university. Using the distance learning facilities provided by the Tele-Community Center, CATE has delivered classes from institutions such as the University of Rochester, California State University Northridge, Southern Methodist University, and University of Southern California, thus filling an important niche for adult education and professional training.

To date, the city has provided funding for the center of about $200,000. Caltrans is providing $300,000 for the feasibility study. Donations from private sector benefactors include GTE (equipment and furnishings); ViewTek (room-size PictureTel videoconferencing unit); Compsolutions (computer hardware); Circuit City (visual equipment); The Lamp Show (furnishings); and Channel Islands Internet (no-cost Internet access). The Southern California Telecommuting Partnership also donated computer hardware.

The facility itself comprises 2,000 square feet on the second level of the Thousand Oaks Civic Plaza. This architectural award-winning civic center is a large multi-purpose complex which also houses two auditoriums, one of which is an 1,800 person-capacity theatre for performing arts; the second, a smaller theatre seating up to 400 persons, doubles as the city council chambers. The center is designed with a front-entry reception/secretarial area, two main separate areas for demonstration purposes, a section for telecommuting use, one conference room with videoconference capability, and a classroom. The first demonstration area is an exploratorium equipped with four computers. In this area, users can access information on technology developed by the Navy and on technical aspects of doing business with countries in the Pacific Rim area. The second demonstration area depicts home-based and normal office-based work environments; this room is divided in half diagonally, with one half equipped like a regular office with desk-top videoconferencing capability, the other furnished and equipped like a home-based office. There

is also one large area for telecommuting use which has three cubicles/workstations and one secured, private office. There is a classroom equipped for satellite and microwave downlink as well as cable for distance learning.

At this time, marketing for the center is largely confined to group tours and software demonstrations. Response to the center has been good. Since its opening, approximately 200 visitors have come through to view the center and explore its amenities. Because the telecommuting aspect has not been emphasized, there are currently no telecommuters using the center. However, the demographic composition and commute patterns of the population indicate a good potential for telecommuting use of the center.

The community of Thousand Oaks is well-positioned to employ the full potential of smart community applications. Census data indicates a population composition with a high proportion of upper-income information workers, many of whom commute out of Thousand Oaks to work. Among the population, familiarity with computers and information technology is high: seventy-seven percent use computers daily as part of their normal work duties and a correspondingly high percentage have home computers. Median household income is $65,000 per year. Community members tend to be strongly involved with local government activities and decision-making. Thousand Oaks is also the California headquarters of GTE, a major telecommunications company. Currently, the City of Thousand Oaks is evaluating options to plan for the future of the center; however, it is clear that the center will most likely maintain its status as a community access point for emerging telecommunications technologies. How these technologies could be developed and deployed is now under consideration and the subject of the feasibility study in process.

**US GSA Telecenters**

The Santa Clarita Valley Telecommuting Center (not to be confused with the Santa Clarita Telebusiness Center), the Santa Rosa Telecenter, and the San Francisco Hoteling Center operate under the federal General Services Administration (GSA) Office of Workplace Initiatives. These centers are part of a federal program encouraging the use of distributed work systems as a means

centers are part of a federal program encouraging the use of distributed work systems as a means to help meet clean air requirements and mitigate traffic congestion. The federal government strongly supports telecommuting as part of this strategy, which includes both home- and center-based telecommuting and flex-time. At one time, the GSA planned to establish as many as 30 telecenters throughout the United States. Five major urban areas of California were targeted for inclusion: Fresno, the greater Los Angeles area, Sacramento, San Diego, and the San Francisco Bay Area. The centers established under this program would serve as telecommute centers for federal, and likely other, employees and as points of delivery for government and other services.

While the federal government still strongly supports and encourages telecommuting as a work-place strategy, direct funding to establish and operate telecenters has not been made available to the California federal GSA. Consequently, the proposed expansion of the program has not been planned in any detail, nor is any such planning likely to take place in the near future. However, the federal government is aggressively pursuing the telecenter strategy in other parts of the country at this time: in addition to the three California facilities, as of January 1997 there were at least eight federal centers operating in the metropolitan Washington DC area, and at least eight others in Atlanta (4), Chicago (2), Seattle, and Oklahoma City.

Staffing for the Santa Clarita center, the San Francisco Hoteling Center, and the Santa Rosa center, consists of a Combined Administrative Services Unit comprising all federal agencies using the center. One federal employee stationed in San Francisco is responsible for general oversight of all three centers. Since this position is newly-established, duties are still being defined. There is no on-site staff at any of the three centers.

**San Francisco**

***San Francisco Hoteling Center (US GSA)***

This facility is located in downtown San Francisco. It houses ten workstations and a conference room. The target clientele are reverse commuters who live in the city but work in the suburbs. The location is convenient to many hotels and will also be used by people visiting San Francisco

on business who have the need for computers and other office equipment. Essentially, the facility offers these workers a field office when they are on the road, as well as giving downtown residents the opportunity to reduce their travel.

**Santa Clarita**

***Santa Clarita Valley Telecommuting Center (US GSA)***

This center was opened on February 7, 1994 by the US GSA in response to the Northridge earthquake the previous month. Located ten to twenty miles from the Northridge epicenter, the primary purpose of the center was to assist federal employees as an emergency earthquake-relief service. Although the US GSA had been planning to open telecenters in Southern California as an alternative work arrangement prior to the quake, no specific time frame or plan had been set for developing the centers. The earthquake prompted a crisis intervention on the part of the government, and the center was opened within two weeks of the event.

The 5,000 square feet of the center contains 32 workstations; some of these are grouped together in private offices around an open central area that contains the rest of the workstations. There are also three conference rooms, a kitchenette, and offstreet parking. The center has 486 PCs equipped with fax/modems, DOS, Windows, and Microsoft Office. Telecommuters also have use of two HP Laserjet printers, as well as fax and copy machines.

Because this facility is dedicated to federal employee use only, marketing activities have been restricted to promotional activities internal to the federal government. These included meeting with the leaders of the federal agencies, conducting tours of the sites, and pursuing commissions and support from the Washington D.C. offices of those federal agencies. The GSA has been involved in discussions with state and local agencies about the possibility of expanding use of the center to include employees from those agencies, but so far, there has been no resolution.

The Santa Clarita Valley Telecommuting Center continues to operate under the direction of the GSA and is currently supported by the GSA and by user fees. The charges remain at around $238

per month. The workstation rental rate is derived by dividing the number of workstations, 32, into the amount of rent GSA pays for the telecenters space each month; all other operating costs are absorbed by the GSA. When first opened, the center was operating at capacity; however, when the GSA began charging for use in 1995 to offset leasing costs, only 14 of 28 regular telecommuters continued to use the site. At this time, the center is only being used by one federal agency.

**Santa Rosa**

***Santa Rosa Telecenter (US GSA)***

The Santa Rosa Telecenter was opened in October of 1995 by the US GSA and is located in the Federal Building in downtown Santa Rosa. It is a quiet location in a commercial area near retail stores, restaurants and other services. There is convenient parking and public transportation for the center's users. There are four cubicle workstations, each with a 486 PC and modem. The center also has a laser printer and a fax/copier machine.

At the present time there are no regular active telecommuters using the facility. One or two people use the center each week on a drop-in basis. Currently the center is only open to federal employees. The workstations cost $100 per month with the GSA covering the rest of the cost of the center.

**Valencia**

***Valencia Corporate Telecommuting Center***

The Newhall Land and Farming Company continues to operate the Valencia Corporate Telecommuting Center. Opened in September 1993, the center occupies approximately one-third of a 30,000 square foot facility located in the Valencia Industrial Center. The Industrial Center is adjacent to Interstate 5, one-half block north of the Magic Mountain Parkway exit; on-site and nearby amenities include restaurants, Federal Express services, and day care facilities.

For the first year of operations, the center had as many as 30 telecommuters from six different employers, most of whom had one-year use agreements with the center. As these leases expired in September 1994, the number of telecommuters decreased dramatically. At this time, Care America is the sole tenant. This major insurance health care provider has contracted with the center operator to lease workstation space for regular telecommuting use, as well as leasing a portion of the center for business recovery. The latter is an arrangement whereby 4,000 square feet of space can be used as needed by Care America on a temporary basis for special projects. For the regular telecommuters, Care America reserves ten workstations.

Because Care America reserves the greater part of the center for its use, the center operator is not actively pursuing marketing efforts. Support for the center comes from user fees and the parent company, Newhall Land and Farming. Other supporting organizations have included Pacific Bell, which provided communications equipment and wiring; CB/Langdon Rieder Corporation, which provided corporate tenant support and marketing; and COMSUL Ltd, which provided technology management and communications consulting.

Workstation space is rented unfurnished by the square foot; tenants can install private offices or cubicles as desired, and then supply whatever workstation furniture and equipment is needed. The center provides cabling for voice and data networking services, use of conference rooms, and, on request, voice-mail, ISDN, videoconferencing, furniture, and workstations. Rental costs are charged per square foot and prorated on the length of the lease: month-to-month leases are charged $1.75 per square foot per month; a lease of six to twelve months costs $1.50 per square foot per month; and a lease of twelve months or more is charged at a rate of $1.25 per square foot per month.

The biggest obstacle to a wider acceptance of telecommuting is manager resistance, according to the site administrator.

## PLANNED TELECENTERS

**Mission Viejo**

A feasibility study, sponsored by the City of Mission Viejo, Caltrans, and the Orange County Transportation Authority, has been completed for a telecenter in Mission Viejo. Components of the study included a census data analysis; a background review of existing studies of telecenters in California and nationwide; interviews with public, non-profit and for-profit employers to assess the potential for use of a telecenter; and a household survey of 700 resident households in the South Orange County region to assess community needs and interests. Findings of the study supported the development of an integrated municipal facility capable of serving areawide community information needs in addition to meeting potential telecommuting needs. Because technology advances are increasingly transforming libraries into community information resource centers, the new facility, termed a Regional Information Center, is planned to be part of the municipal library. Following the recommendations of the feasibility study, the facility housing the center will be a multi-use complex containing a library, the telecenter, and a videoconference facility.

To help ensure economic viability, services offered by the center will be diverse, with three main components: the telebusiness center, a government center, and an education center. The telebusiness center will provide workstations to South Orange County residents, eliminating or greatly reducing commute trips; the government center will provide on-line access to government information and services, including licensing and permitting; and the education center will provide videoconferencing capability for distance learning as well as training for government, corporate, and community resident users. Retail office support services, such as faxing, copying, or mail services, are also planned.

The information center will allow patrons to access the Internet, CD ROM databases, and multimedia materials on computer workstations, both as a community service and to enhance mobility. In addition to the information access component, the study determined a high level of

interest in on-site training and technical support. It was found that while many employees were interested in either home- or center-based telecommuting, a lack of technical support at the remote work location was an impediment to successful telework. To address this, the City of Mission Viejo is planning to incorporate training and support programs for computer hardware and software, as well as training for successful telecommuting.

Interviews with employers revealed a preference for center-based telecommuting over home-based telecommuting for liability issues and due to a perception of increased productivity. However, employers also expressed an interest in flexible telecenter use arrangements over a more traditional monthly-lease commitment. The Regional Information Center will thus incorporate "hoteling" for workstation use; that is, lease periods will be based on hourly, daily, weekly or monthly use, with the objective of making center-based telecommuting more attractive to employers.

The building that will house the center is currently under construction with the opening date planned for October 1997. It is located at La Paz Road and Marguerite Parkway. The telecenter is under the ownership of the City of Mission Viejo. Staffing decisions are still under consideration. The city will either provide staff for the center or out-source the work to a private company.

Marketing for the center is planned to be largely community- and employee-based, at least initially. Employer-based marketing is considered critical, and outreach to decision-makers is planned. However, the study advised that commitment from individual employee users is more critical for a telecenter's economic viability than corporate lease commitments. Moreover, employer telework policies, often necessary before center-based telecommuting can become a reality for the organization, can be lengthy in development. Another inhibiting factor to success identified by the study is the lack of public awareness and understanding about telecommuting.

Funding for the feasibility study, furniture, equipment, the training program, and early operations are provided by federal Intermodal Surface Transportation Efficiency Act (ISTEA) funds,

Caltrans, the South Coast Air Quality Management District, and AB 2766 subvention funds. The developers are planning an eventual 15,000 square foot expansion of the telework and videoconferencing components of the center, and are applying for an additional $4.3 million dollars in federal funds to accomplish the expansion. They also hope to secure financing for satellite communication links. No library funds will be used for center operations or development; all funding is currently grant-dependent. Fees from the training program, once it is established, are planned to provide sufficient revenue to offset the majority of operating costs.

# CLOSED TELECENTERS

Thirteen telecenters have closed since the September 1995 report was issued. This section discusses each of them, in some cases only briefly due to the problems of contacting non-existent facilities. The newly closed centers are: the Chula Vista Eastern Telecenter (RABO), the Coronado Telecenter (RABO), the East County San Diego Tele*Community Centre in La Mesa/El Cajon (RABO), the Modesto Telecenter (RABO), the Moorpark Community College Telecenter (RABO), the Auburn (RABO) and Rocklin centers, the Antelope Valley Fair Telecommuting Center, the Birch Lane Telecenter and Davis Telebusiness Center, the Ontario Telebusiness Workcenter, the Simi Valley Telework Center, and the Sonoma County Transit Telecommute Center. Also included in this section are summaries of centers reported as closed in previous reports. Closed centers reported from the 1995 Status Tracking Report are: The Telecommuting Workcenter of Riverside County; Citrus Heights (South Placer County Transportation Management Association); Sherman Oaks and Van Nuys and Thousand Oaks and Westlake Telecommuting Centers; and the Ulatis Telecenter (RABO - City of Vacaville). Centers previously reported as closed in the 1994 Status Tracking Report include the Concord and San Jose Telecenters (BATDP), and the Santa Monica City College Telecenter.

**Antelope Valley Fair**

***Antelope Valley Fair Telecommuting Center***

The Antelope Valley Fair Telecommuting Center (at the Antelope Valley Fairgrounds) was open from August 1, 1994 to the summer of 1996.

The center was sponsored by the Antelope Valley Fair itself, the Department of Food and Agriculture (the 50th District Agricultural Association), the City of Lancaster, and Caltrans and was affiliated with the Southern California Telecommuting Partnership. Its 8,000 square foot facility had 20 open-area workstations, four 100 square foot private offices, one videoconference room, and a regular conference room with seating capacity for 125 people. Equipment consisted

of IBM and Macintosh computers; charges for use were $5.00 per hour, $20.00 per day, $90.00 per week, or $300.00 per month.

Marketing activities included advertising the center at the fairgrounds and distributing flyers and brochures. The center offered after-school drop-in use to high school and college students, and at one point plans included giving training programs to participating employers and telecommuters at the center.

As of April 1996 there was only one telecommuter using the facility on a regular basis and no active recruitment was taking place. It was finally decided that there were not enough users to justify the telecenter remaining open.

**Bay Area Telecommuting Development Program (BATDP)**

***Concord and San Jose***

In September 1993, as a one-year demonstration program, the Bay Area Telecommuting Development Program (BATDP) established two prototype telecommuting centers, one in Concord and one in San Jose. On February 28, 1994, halfway through the demonstration period, the centers were closed due to low occupancy rates. Although various types of marketing activities were tried, including general advertising, hand bills, direct mailings, distributing flyers on cars, and promoting programs through radio stations, the centers peaked at only a 12 percent occupancy rate. Among the 12 percent, the majority of the telecommuters were from Pacific Bell. With funding for the program depleted, and total project cost overruns of $10,000, an early decision was made to close the centers.

The project manager attributed the low usage rates to the difficulties involved in conveying the concept of telecommuting to employers, and identified one major barrier to the success of telecommuting as lack of trust from employers toward their employees. Moreover, it appeared that those employers who accept telecommuting in general prefer home-based telecommuting to center-based because of the lower costs. As indicated above, a strong marketing effort was made

which included news releases, 8,000 pieces of direct mail, radio and print advertising, exposure at trade shows and transportation fairs, a radio talk show, and signage. The project administrator noted that none of these marketing strategies were very effective for the centers, and felt that the transition from publicly-funded centers operating free of charge for users, to fee-based self-supporting centers, dramatically decreases interest in using telecenters.

The Concord site had 14 cubicles and three private offices and was located near a large mall with a residential neighborhood behind it. The San Jose site was located one mile south of an expressway in a business area. The site had 16 cubicles and two private offices, as well as ISDN capability for videoconferencing. Rates were $600 per month for a private office and $400 per month for a cubicle. Users also had the option of an hourly rate, which was set at the current market rate.

Pacific Bell contributed $500,000 of "soft money" (funding for administrative services, staff, space planning, furniture and equipment) to these centers. Other funding sources were the Federal Government ($337,000) and the State ($150,000).

**Chula Vista**

***City of Chula Vista Downtown Telecenter***

This center was one of two developed by the City of Chula Vista for the purposes of traffic congestion and vehicle emissions mitigation. Insufficient funding forced its closure April 1, 1997, and its operations were then combined with those of the Eastern Telecenter, described above in the "Currently-Operating RABO Telecenters" section.

The Downtown Telecenter opened February 1995. Located within easy walking distance of public transportation, the city library, restaurants and retail stores, it contained eight large cubical workstations, a private office, a large conference room with a Panasonic videoconferencing system, a classroom, a kitchen area, and the Telecenter Technology Director's office. Workstation equipment included five 486 DX 66MHz microcomputers with 15 inch CTX color

monitors, fax/modems and software. There was also one Apple Macintosh 7100 AV/CD/16MB computer with a 17 inch display monitor, fax/modem and software, as well as an Apple Scan Maker II HR with OCR capabilities. Office support equipment included a laser printer, fax machine, Xerox copier, and phones with a digital message system.

The center was staffed by the Telecenter Technology Director, who was responsible for developing alternate uses for the centers, for forming partnerships with various diverse agencies to promote different uses of the centers, and for operations oversight of the Downtown center. Marketing for both the Eastern and the Downtown centers was conducted concurrently by the Telecenter Director, and is described more particularly in the Eastern Telecenter section above. The Downtown Telecenter had four regular users occupying the center 9.5 telecommuter days per week (i.e. 21% occupancy). In addition to the regular users, a temporary employment agency located in the same building had been using the center over the last year when its clients did not have the space necessary for temporary personnel.

**Coronado**

***Coronado Telecenter***

This site was developed and operated under the direction of the Coronado Transportation Management Association (CTMA), and was the first RABO-sponsored center to open under that program. It was open from October 1993 to the end of June 1996. The decision to close the center came about at least in part as the result of uncertainty around the ultimate disposition of computer equipment purchased with State funds under the RABO project. State regulations stipulate that any equipment purchased with state funds becomes the property of the state unless specific provision is made to donate the equipment to another agency. Under the RABO program, the process of property transfer was difficult and protracted, and ultimately impacted the center's plans for future operations, for without equipment, the center could not function. In the face of this uncertainty, the center director elected to suspend operations, with plans to eventually reopen the center as part of the Coronado library system.

The telecenter was co-located with the administrative offices of the TMA, the Chamber of Commerce, and Coronado Mainstreet in a one-story building in downtown Coronado. Primary support came from Caltrans, the TMA, and Coronado Bay Bridge toll funds. It occupied 725 square feet with four cubicle workstations and contained secured storage, a conference room, a restroom, a site administrator's office, and a kitchen area. Workstation equipment consisted of two 486 personal computers with modems, a laser jet printer, and a personal computer for the site administrator's use.

Recruitment efforts targeted the City and County of San Diego, the Navy and the federal government. Community-based promotion included a newsletter, cable television public service announcements, and participation in regional trade fairs and expos. This center actively coordinated recruitment efforts and promotional activities with other centers in the region, including the two Chula Vista telecenters, the East County San Diego center, and the centers under the direction of HQ Business Centers, Inc., a private executive-suites company.

**Davis**

***Birch Lane Telecenter***

This center, and the Davis Telebusiness Center, were both developed and operated by a private entrepreneur, Databases and Algorithms, Inc. The Birch Lane center opened in February 1994 and closed in 1995. Reasons for its closure were not reported.

The center was located in a computer lab in an elementary school and was used as a teaching facility during school hours. Hours of operation for the telecenter were from 3:30 in the afternoon until midnight. These hours made the site largely inaccessible to the majority of workers whose normal work hours coincided with school hours. For that reason the developer decided to open a second center, the Davis Telebusiness Center, described below.

While the center was never successful at attracting regular telecommuters, the developer reported that it did well as a community technology resource, particularly for drop-in or casual use. At

one time, the developer reported that the center averaged a weekly volume of 10 to 30 persons, mostly students, employing the facility for various purposes. The facility offered access to many different types of software, a fairly extensive CD ROM library, and the Internet. On-site technical assistance for general computing needs was available as well as more specialized services such as Internet training or database programming. Fees were charged according to amount of usage: one-time usage fees for drop-in users were $6.00 per hour for non-students and $5.00 for students. There were also monthly rates for subscription to unlimited usage: $42.00 for a single person, or $69.00 per month for a family pass.

The facility offered 16 80486 25 MHz personal computers with CD ROM drives, multi-media capabilities and internal fax/modems. All computers were connected by a LAN to approximately 300 different software packages, including Microsoft Office, WordPerfect, Excel, Lotus 1-2-3, Access, Lotus Freelance and Omni Page. The facility also offered use of a color ink jet laser printer with duplex capability and a Hewlett-Packard scanner.

The Birch Lane Telecenter occupied 1,300 square feet of a 10,300 square foot building and had sixteen cubicle workstations in a large open area. Revenue from user fees was supplemented by support from the Davis Joint Unified School District which underwrote rent and utilities for the center.

**Davis**

***Davis Telebusiness Center***

This center began operations in November 1994 under the name Davis Telework Center. Shortly after opening, the name was changed to Davis Telebusiness Center to avoid possible trademark infringement for the word "Telework". It was developed and managed by the same private firm operating the Birch Lane Telecenter, and was established under contract to the RABO program. Both centers ceased operations in 1995.

The Davis Telebusiness Center was established to provide a telecommuting facility in Davis with regular operating hours. It was located in a small office complex and occupied 932 square feet containing ten workstations. The center comprised one large room with a reception area and three cubicle workstations, and three offices, two with two workstations and one with three. It was equipped with three 486 personal computers, two dial-out modems, two laser printers, and a fax/copier. The phone system was Centrex and had voice-mail capability. The center also offered breakroom amenities, including a water cooler and coffee maker.

Funding for the Telebusiness Center came from the Yolo/Solano Air Quality Management District and Caltrans. As with the Birch Lane facility, reasons for closure were not reported.

**La Mesa/El Cajon**

***East County San Diego Tele*Community Centre***

This site was developed and managed by a private entrepreneur with extensive support from the local Caltrans district and the San Diego Association of Governments (SANDAG). The facility in which the center was located was owned by SANDAG, which donated use of the building to the telecenter. The local Caltrans district assisted in developing the site, recruiting and supplying telecommuters, and providing marketing funds. The main portion of funding for site build-out, equipage, and operations came from the RABO program.

The developer planned to position the center not only as a telecommuting center, but also as a community resource for information access and technology, and to serve as a focal point for community events and services. Organizations such as the local Parent-Teachers' Association were offered free use of the conference rooms for meetings, for example; and services were planned such as free software demonstrations and "family days" where families could use the center at reduced rates. As part of the information technology access component, a fee schedule for services on a drop-in or a casual-use basis was developed. Services for this portion of the center's operations included faxing, printing, information management education, and access to a CD ROM library, the Internet, and multi-media courseware.

The developer also equipped the center to enhance client businesses' operations. A local-area network (LAN) was installed with high-speed data lines; one conference room was equipped with a conference table wired with data jacks connected to the LAN to allow access to remote information during meetings. Room-sized videoconferencing equipment was also available in another conference room. The intent was to design a center which could support high technology work and applications based on invisible and instantaneous data transfer. To further promote the center as a means to business development, the developer offered to rent space to local businesses for meetings and presentations for a nominal fee.

The telecenter was located in a strip development adjacent to a residential neighborhood with restaurants, fast food, shopping, cleaners, grocery store and a bus line nearby. It covered 1,550 square feet with a conference room, a multi-media lab, six workstations, a lounge area, and kitchen facilities. The workstations were equipped with personal computers connected to a LAN, and were each supplied with dedicated cabinet space for user storage. The conference room with access to the LAN, as described above, allowed computer-assisted decision-making for groups. The multi-media lab, capable of seating 35 people, was equipped with four monitors as well as a pull-down projection screen and overhead RGB projector capable of projecting computer-generated images. Kitchen facilities were equipped with a refrigerator, microwave and sink.

The center's computers were configured with different operating environments: Macintosh, OS/2, UNIX, or DOS/Windows; and typically had 8 MB RAM, a 200 MB hard drive, an SVGA monitor, and at least an 80386 microprocessor. Each workstation was linked through the LAN to five different servers, including a mail server, a fax server, a communication server, and a file server. User files were maintained on the file server, and each user was allowed one megabyte of hard disk space on the file server. The communication server provided connectivity to remote systems including ISDN, Internet and employer-hosted computers.

Marketing mainly took the form of presentations to the Employee Transportation Coordinators of major employers, open houses, and participation in trade fairs and expos. Recruitment of center users was mostly accomplished by a key staff member of the local Caltrans district office.

The center officially opened March 15, 1995. It seemed to be operating smoothly until June 1995, after which all reporting to the RABO project management ceased. In November 1995, tenants reported the developer/operator had abruptly closed the center without notification.

**Los Angeles and Ventura Counties (US GSA)**

***Sherman Oaks and Van Nuys Telecommuting Center***

***Thousand Oaks and Westlake Telecommuting Center***

Both centers opened in February 1994 and closed in January 1995.

The federal government began its telecommuting program in the Washington DC area and intended to study the East coast program before expanding it across the country. As a result, no preliminary site selection studies or surveys had been conducted when the Northridge earthquake hit. Although the possibility of opening as many as nine telecenters throughout California for federal employees had been discussed, a decision was made to immediately open three centers in Southern California to help residents cope with the damage resulting from the earthquake.

The Thousand Oaks and Westlake Telecommuting Center had 24 workstations and the Sherman Oaks and Van Nuys Telecommuting Center had 28. At one point in 1994 the Thousand Oaks and Westlake center reported 20 of its workstations occupied, while the Sherman Oaks and Van Nuys center reported 12 of its workstations being used. All users were federal agency workers. However, occupancy at the Sherman Oaks and Van Nuys center declined after roads were repaired and re-opened, since most workers using the center could as easily drive to their central office as to the center. Moreover, the Sherman Oaks and Van Nuys facility had maintenance problems (unrelated to the earthquake) which resulted in decreased usage.

Very limited information was available regarding the number of federal employees living near the three sites selected, how many of those employees would be interested in using the facilities, or which of the federal agencies and managers in those areas would be willing to allow their employees to use the sites. As the program continued, it became clear that the Santa Clarita facility received much more interest from users than either the Sherman Oaks and Van Nuys location or the Thousand Oaks and Westlake location. The lack of detailed information in site selection seems to have been a significant factor in the eventual closure of these two centers.

**Modesto**

***Modesto Neighborhood Telework Workcentre***

This center opened August 1994 and closed November 15, 1995. It was developed and operated under the direction of the City of Modesto with support from the San Joaquin Valley Air Quality Management District (SJVAQMD) and the RABO program. The City of Modesto and Pacific Bell provided in-kind funding: the city provided accounting services and some administrative support and oversight, and Pacific Bell donated furniture.

Although usage levels were relatively high for the center, and Lawrence Livermore Laboratories as well as two other companies maintained a strong presence in the telecenter, the center came into jeopardy when it lost its AQMD funding. In 1995, the SJVAQMD implemented a new rating system using quantity of emissions reduced as a measure of merit in awarding funding to projects competing for grant money. Because the center could not yet demonstrate significant poundage of annual emission reduction, it placed low on the list of programs requesting funds. Funding instead went to used-vehicle buy-back programs. The center was further compromised as a result of delays in the RABO program funding. As a result, client organizations refused to commit to continue using the center until it could demonstrate greater stability, and the center lost users.

The City of Modesto agreed to fund the center's on-going operations on a month-to-month basis with a view to recovering all costs expended. An application for State Petroleum Violation Escrow Account (see "Terms and Definitions" section) funds was submitted and denied in

September. Although Lawrence Livermore Laboratories, the federal GSA, and the RABO program all attempted to forestall its closing, in November 1995, the City of Modesto terminated operations of the center.

The center itself was located in an office building next to strip commercial development and directly adjacent to several residential neighborhoods. Until August 1995 the center comprised 2,300 square feet of space which was then reduced to 1,062 square feet of space. The original center contained two private offices, an open area with six workspaces, and a conference room. Computer equipment for the center consisted of seven IBM 486 PCs and one Macintosh computer, all with modems. The center also had two color ink jet printers and two laser printers. Two ISDN lines were installed by one employer in a private office for dedicated use in the center by its employees.

Since marketing funds were limited, marketing and promotion for the center was confined to that which could be done for free and to donated resources. The site administrator was very successful at generating free publicity for the telecenter. Human interest stories about the center and its telecommuters were aired on the news broadcasts of the three major Sacramento television stations during 1995. In addition, the administrator addressed different professional associations and groups in the region and was very successful at generating contacts that way. As part of the donated publicity, a billboard promoting the center was mounted along one of the main highways; however, it generated little response and resulted in no new users.

## Ontario

### *Telebusiness Workcenter*

The Telebusiness Workcenter in Ontario closed its doors on June 30, 1996. It was established in 1991 by the Inland Empire Economic Partnership as a two-year pilot project and opened in October of that year. In January 1994, the City of Ontario assumed oversight and operations responsibilities for the center, and until its closure, an independent, non-profit institute for policy research, Center for the New West, managed it. The city made the decision to terminate

operations partly in response to financial pressures, partly as a response to low daily usage levels, and partly because it was felt that the major objectives of the pilot project had been met. When the city first took over operations of the center, it was hoped that the center would become either self-sustaining or be privatized. In the absence of either circumstance, the city could not afford to continue operating the center. Charges per workstation ranged between $100 to $150 per month, but operating costs per workstation ran $500.00 per month. And although the center had 25 to 30 regular telecommuters, only two or three were at the facility on any given day, which was not considered enough to warrant continuing operations.

The center was located just off the freeway near the Ontario airport. It comprised 18 workstations, two conference rooms, a kitchen, a separate lounge area, and two semi-private offices. All workstations were equipped with personal computers, including 386s, 486s, and a few IBM PS/2 model 30s. One of the conference rooms was equipped with a PictureTel 1000 videoconference system. Other equipment included four laser printers, several dot matrix printers, and facsimile and photocopy machines. Voice mail could be supplied upon request, and the center had installed a fiber optic link to support advanced telework activities as needed.

Support for the center came from the City of Ontario, Caltrans, GTE, and PictureTel and Intel, both of which donated videoconferencing equipment and computers; and in February 1995, Xerox provided upgraded photocopy and fax machines.

Marketing for the center consisted of hosting open houses and tours of the facility, and of networking with other centers in the Inland Empire Economic Partnership (High Desert Telebusiness Center, Highland Telework Center, Ontario Telebusiness Workcenter, and Pomona Telebusiness Workcenter) to develop marketing strategies. A program providing services to patrons of the City's major hotels was implemented with a fair degree of success. These services included use of copy/fax machines, phones, computers, workstations, private offices, and videoconferencing. Under this program, an Israeli delegation which was staying at one of the hotels for an extended period of time leased three to four workstations for approximately nine months. Overall, this particular component yielded considerable added value to the center.

**Placer County**

***South Placer Transportation Management Association***

***Citrus Heights, Auburn, and Rocklin***

The Citrus Heights Telecenter, the Auburn Telecenter, and the Rocklin Telecenter were three of four centers developed by the South Placer County Transportation Management Association. The fourth center is the Roseville Telecenter, which to the authors' knowledge, remains open and is operated by a private enterprise. The Citrus Heights Telecenter, the Auburn Telecenter, and the Rocklin Telecenter opened March 1, 1994, March 15, 1994, and October 4, 1994 respectively. The exact dates of their closure are not known, but all closed in early 1995. The Citrus Heights center and the Auburn center were established under, and for a very brief period of time partially funded by, the RABO program. Reasons for closure of the Rocklin and Auburn centers were not reported, although the SPTMA office indicated at one time that the Citrus Heights Telecenter had been closed because it was located outside Placer County. Operating history of these centers was not provided. The following brief description of the facilities and equipment for each site is taken from the December 1994 Status Tracking Report:

The *Citrus Heights Telecenter* was located in the historic Rusch House, situated within the botanical gardens of the original homestead. The center was 1,203 square feet consisting of 9 workstations, a conference room, copier, fax, computer, printer, modem, phones, and voice mailboxes. The telecenter was located on the grounds of a community park complex with swimming pool, walking paths, tennis courts, ball fields and picnic facilities. The Sunrise Park and Recreation Department runs a day-care facility in the park complex and private day-care center is within walking distance.

The *Auburn Telecenter* contained 1,685 square feet consisting of 12 workstations, a conference room, copier, fax, modem, computers, printer, phones, voice mailboxes, and ISDN lines. Amenities included daycare center and health club facilities within the complex, shower facilities and proximity to restaurants and shopping.

The *Rocklin Telecenter* was approximately 1,600 square feet consisting of 12 workstations, a conference room, copier, fax, modem, computer, printer, phones and voice mailboxes. Amenities included a day-care center located next to the telecenter, Stanford Ranch restaurants within walking distance, shopping and banking.

For each site, the first month's rent was free with a six month commitment (except for long-distance telecommunication charges and photo copies). After the initial one month period, costs were to rise to a negotiable rate of approximately $20.00 per day. Employers could reserve workstations for as little as one day per week.

**Riverside**

***The Telecommuting WorkCenter of Riverside County***

Portions of this summary were drawn from *Telecommuting Centers and Related Concepts: A Review of Practice*, by Michael Bagley, *et al.* Please see the section "Reports Available from the RABO Project" at the front of this document for more information.

This center opened in November 1991 and ceased operations July 1, 1995, after funding for the center expired. It was established jointly by the Inland Empire Economic Partnership, the State of California, the Riverside County Transportation Commission, and Pacific Bell, with additional start-up contributions from Southern California Edison, Stockwell & Binney, IBM, the South Coast Air Quality Management District, Southern California Gas Company, Thomas Luebs & Mort, Xerox, the City of Riverside and PacTel Business Systems. It was originally planned as a one-year demonstration project designed to help address traffic congestion and vehicle emissions in the region. After operating for approximately two years under the direction of the IEEP, management of the center was transferred to the City of Riverside, which operated it until its closure.

The center originally occupied part of a one-story office building situated in a light industrial office park. Its 8,100 square feet contained 19 private offices and space for 24 additional office

cubicles, and offered video- and audio-conferencing capabilities, two conference rooms, lunch room, reception area, and a site administrator's office. In all, the center could accommodate as many as 70 telecommuters daily, and at one point in 1993 had 40 telecommuters actively using the center, making it the most heavily-used multi-employer telecenter studied at the time.

In February 1994, the center was moved to a smaller, less expensive facility. The new center had 3,800 square feet and was located near Route 91 and a residential area. It comprised 16 open-area workstations, five private offices, and two more closed offices containing 5 workstations. Videoconferencing facilities were also available. Each participating employer paid for the cost of moving the equipment and furnishings used by its employees.

Post start-up funding for the center came from the County of Riverside and the Petroleum Violation Escrow Account. Marketing activities focussed on presentations to employers as well as networking with other centers in Southern California (High Desert Telebusiness Workcenter, Pomona Telecommuting Center, Ontario Telebusiness Workcenter, and Highland Telework Center) to increase marketing effectiveness.

**Santa Monica**

***Santa Monica City College Telecenter***

The following excerpt is from the December 1994 Status Tracking Report by Shirley Henderson *et al:*

The Santa Monica City College Telecenter was opened on March 1, 1994 in response to the Northridge earthquake, for the benefit of the workers normally using Interstate 10 (the Santa Monica Freeway) to commute to or through mid-Wilshire, downtown Los Angeles, and elsewhere within the region. I-10 was closed for two months following the quake, but reopened less than a month after the center opened. Thus, transportation effects of the quake provided little incentive for people to use the center. The center was a joint effort involving the City College, AT&T, the Southern California Emergency Telecommuting Partnership, and other organizations. AT&T

operated the center and supplied much of its equipment and furnishings. Other equipment was donated by Kodak and PictureTel. The center closed on May 29, 1994 when AT&T reached the end of its 90-day contract with the City College. Neither the City College nor AT&T wanted to pursue further operation of the center since it did not demonstrate success during the trial period.

There were reportedly several reasons why the center did not succeed. One important reason was an apparent lack of consensus on who would perform what roles. Some parties expected the City College to operate and market the center, whereas the College appeared to view its role primarily as providing the physical space for the center. The College itself sustained $20 million of earthquake damage—the highest of any community college affected—and officials were preoccupied with obtaining emergency repairs and with re-opening the school for the second semester. Finally, one consequence of the above mentioned factors was insufficient attention to marketing. Half of a $5,000 marketing donation was used to hire a consultant for marketing ideas rather than directly hiring sales representatives to market the center. The center was advertised in the college newspaper and the course catalogs which were distributed throughout the Santa Monica community. While this strategy may have been useful in reaching prospective telecommuters, it did not reach the employers of those prospects.

No records were kept on the center's occupancy levels. The center had 20 open-area workstations with a two-line telephone and personal computer in each workstation, two additional open-area workstations with desk top videoconferencing, and a large conference room with two group videoconferencing systems. Space, equipment, and most services were provided free of charge; one exception is that telecommuters had to provide their own telephone calling cards.

**Simi Valley**

***Simi Valley Telework Center***

The Simi Valley Telework Center in Ventura County opened unofficially in June 1991 and officially in June 1993. It was closed in December 1995 for lack of use.

The center used excess space leased by the Simi Valley Transportation Management Association and had four workstations and a reception area. It was equipped with a copier, fax machines and videoconference equipment from Intel and PictureTel. Support for the telecenter came from the Transportation Management Association, which donated use of the space, and a $200,000 grant from the Petroleum Violation Escrow Account.

Throughout its lifespan, the center was used sporadically. Users tended to employ the facility for limited periods of time or specifically for short-term projects such as editing or desk-top publishing. Marketing for the center focused on presentations to employee transportation coordinators and coordination with the Southern California Telecommuting Partnership.

The lease rate for a workstation was listed as $300 per month, but the amount was negotiable, depending upon the amount of use and user requirements.

**Sonoma State University**

***Sonoma County Transit Telecommute Center***

This center, operated by Sonoma County Transit and located on the California State University - Sonoma campus, was established as a pilot project in December 1994 to determine the level of interest for telecommuting in Sonoma County. Its first year of operations was funded by a $20,000 grant from the Federal Transit Administration with additional support from Sonoma County Transit, which continued to underwrite operations for the second fiscal year ending June 1996. Approximately 50 people used the center on an infrequent basis over the course of the pilot project. Employer resistance to telecommuting prevented many interested employees from using the center. On June 30, 1996, it was closed when the initial funding had been exhausted and the university required the space back for its own operations.

The facility was a secured, temporary building on the campus. It offered four cubicle workstations, each equipped with a personal computer, modem, telephone, and answering machine. Peripheral support equipment included a shared laser printer, a facsimile machine, and

a photocopier. Telecommuters could use the center up to two days per week for free. There was no on-site administrator; instead, telecommuters registered to use the center through the Telecommuting Coordinator at Sonoma County Transit, and were each assigned a personal code allowing access to the building and telephone system. Additionally, Sonoma County Transit provided free bus passes to users for the commute to and from the center. On-campus amenities included a cafeteria, Federal Express service, a day-care center, a library, and a bookstore.

Marketing activities included radio and television news reports, press releases to newspapers in Marin and Sonoma Counties, newspaper advertisements, and articles in local business journals and other publications.

**Vacaville**

***Ulatis Telecenter in Vacaville***

This center was one of two developed and operated by the City of Vacaville. It was opened in April 1994 with support from the city, the RABO program, and the Yolo-Solano Air Quality Management District, and closed in June 1995.

The center was located in the Ulatis Community Center, a building which had been very recently constructed. Almost immediately after opening, structural problems began to occur. The site administrator initially scheduled the closure of the telecenter for a short period while repairs were completed. However, upon reviewing usage levels for both centers, he decided to close the Ulatis center and merge its operations with the Alamo (Three Oaks - Vacaville) Telecenter until the demand for workspaces justified reopening the Ulatis center.

The center contained 540 square feet housing seven cubicle workstations. There was no conference room available in the immediate area of the telecenter; however, rooms adjacent to the center in the Community Center building could be used for that purpose. The center was equipped with four Compaq 80486s with 9600 baud internal modems. On-site user services

included access to fax and copy machines, and phones. The center also provided coffee, tea, and use of a refrigerator and microwave.

The area surrounding this site is mostly industrial mixed with commercial; the Factory Outlet stores, a large shopping complex, are within two blocks of the Community Center building. The residential neighborhood is at a slightly greater remove, but still within walking distance. Also within walking distance are the library and the community theater. The immediate area is well endowed with bike lanes, which serve the nearby residential neighborhood.

The space in Ulatis Community Center is still available for a telecenter, and developers plan to use it for that purpose in the future; however, no re-opening date has yet been established.

**Ventura County Community Colleges District**

***Moorpark Community College Telecenter***

The Moorpark Telecenter opened for use in April 1995 and closed at the end of June 1996 after 14 months. This was one of two centers established under the auspices of the State of California Community Colleges Chancellor's office through the Ventura County Community Colleges District with funding from the RABO program. The other is the Ventura Community College telecenter. Both centers were planned to be part of a larger program sponsored by Caltrans and developed by the Chancellor's office to establish telecenters on community college campuses state-wide. While the decision to establish the campus' telecenters and funding for them came from the RABO program through the VCCD offices, operations and management responsibilities devolved upon the individual campuses. In the case of the Moorpark center, strong support for the center at the administrative level never developed as it did in the Ventura center, and unfortunately, the state-wide community colleges program was terminated in the planning stages. Consequently, the Moorpark center was closed due to an administrative decision of the college when funding from the RABO program terminated and no other funding was made readily available.

The Moorpark center was located on the second floor of the campus library. It occupied two rooms totaling approximately 900 square feet with a niche for the site administrator's office, five cubicle workstations, and a conference room equipped with PictureTel Venue 2000 videoconference equipment used for distance learning and telemeetings. Office equipment consisted of two 486 personal computers with fax/modems and software and a Macintosh 7100 Power PC. There was also one shared laser printer, one external facsimile machine, a phone with voice-mail capability, and ISDN.

On-campus amenities included food service facilities, a bookstore, library resources, postal and Federal Express services, and UPS service upon request.

Marketing for the center was accomplished mostly in conjunction with the Ventura site, and consisted largely of participation in trade shows and expos, hosting open houses, and presentations to various professional associations. The Moorpark site administrator also conducted an intensive survey of the campus student body to help identify potential users. However, this did not yield the hoped-for results. Both centers received considerable unsolicited attention from the press which resulted in new users.

## PLANNED, BUT NEVER OPENED

Some of the telecenters that were described as "planned" in the September 1995 report were never opened and all plans have been dropped. The *City of Santa Cruz* conducted market research in the area and after observing different telecenters around the state decided not to start one. There is some discussion of exploring the telecommuting aspect of a technological incubator to help small businesses share resources, but plans are very tenuous at best. The *San Luis Obispo* Council of Governments and Caltrans conducted a feasibility study on opening a telecenter but did not find enough evidence to support the creation of one. The City of Redondo Beach also conducted a feasibility study into opening the *Palos Verdes Peninsula Telecenter* but found that the demographics would not support it. The City concluded that home-based telecommuting with general public access to the World Wide Web at local libraries, city buildings, or schools would be better.

The center planned in Irvine was never opened due to lack of funding. The principal developer, *Interactive Intelligence Centers*, was working in cooperation with the Irvine Valley College to open the center with funds from Caltrans' Community Colleges telecenters project, which was never implemented because it never received the expected state funds. Other partner organizations in the Irvine center included the City of Irvine, Pacific Bell, and the Hyatt Hotel. The center was planned to include approximately 14,000 square feet of space in Jamboree Center, located just off Interstate 405 at the corner of Main Street and Jamboree Road.

A feasibility study was commissioned by the *City of Encinitas* on the potential success of a telecenter in Encinitas. Although the study indicated a moderate level of interest by the public, after a public hearing, the city council determined the level of interest to be insufficient to warrant investment of city funds. In view of these findings, and due to apprehensions about the inability of such a center to achieve self-sufficiency, the city council adopted a negative recommendation.

Plans for a telecenter to be established by *City of Torrance* have been dropped. A feasibility study of organizations in the area revealed that many had existing unused space in their main offices, and were unwilling to pay for additional office space for telecommuting purposes. Moreover, many indicated that home-based telecommuting was the preferred option for remote work, since many employees who would be telecommuting had home computers. The initial grant of $150,000 from the Petroleum Violation Escrow Account mentioned in the September 1995 report which had been designated for development of the center has been extended and is now planned to fund development of a program to support home-based telecommuting instead. Concepts for this program are currently being explored.

# Appendix A - Telecenters Information
## RABO Telecenters

| | Operator | Employer/User Types | Funding Sources | Other Uses |
|---|---|---|---|---|
| **Chula Vista Eastern Telecenter** | City of Chula Vista | County government, marketing, real estate, health industry, telecommunications | Caltrans, RABO, California Energy Commission, San Diego County Air Pollution Control District, Department of Energy, Panasonic, Cox Communications | Distance learning through University of Phoenix and National University, SmartCommunity member, Internet resources and classes, videoconferencing, telemedicine, and drop-in availability |
| **Grass Valley TeleBusiness Center** | Western Nevada County TMA | State workers, software sales, legal publishing | Northern Sierra Air Quality Management District, Waste Management Inc., RABO, Western Nevada County TMA, Pacific Bell | Videoconferencing, drop-in availability |
| **San Juan Capistrano Telebusiness Center** | Pacific Neighborhood Telecenters | Engineering, bookkeeping | RABO, Southern California Telecommuting Partnership, Caltrans, AB 2766, PictureTel, InTel | Videoconferencing, computer classes, home page design |
| **Vacaville Telecenter** | City of Vacaville | State workers, sales reps, claims adjuster, students | Yolo-Solano Air Quality Management District, RABO | Videoconferencing, Internet, drop-in availability |
| **Ventura Community College Telecenter** | Ventura Community College | Students, real estate, grant writer, lawyer, anthropology instructor, engineer, programmer | Ventura Community College, Southern California Telecommuting Partnership, RABO | Videoconferencing, Internet, drop-in availability |

# Appendix A - Telecenters Information
## Non-RABO Telecenters

| | Operator | Employer/User Types | Funding Sources | Other Uses |
|---|---|---|---|---|
| **Anaheim Landmark Telebusiness Center** | Landmark Executive Offices | Start-up companies, Army Corps of Engineers | Southern California Air Quality Management District, Anaheim Redevelopment Agency, RABO | Videoconferencing, Internet, access to client's work computers, voice mail, secretarial services, computer training, desktop publishing, drop-in availability |
| **Antelope Valley Telebusiness Center I**<br>**Antelope Valley Telebusiness Center II** | County of Los Angeles | Health Net, Chubb Insurance, UCLA, South Coast Air Quality Management District | Currently self-supporting, Ford Foundation, Southern California Telecommuting Partnership (SCTP) | Distance learning (California State University Northridge), videoconferencing, drop-in availability |
| **Bishop Paiute Telework Center** | Bishop Paiute Development Corporation | N/A | Bureau of Indian Affairs, a private foundation, U.S. Department of Health and Human Services | Internet, in-bound call processing, World Wide Web graphics and design, medical claims processing |
| **Compton Blue Line Televillage** | Metropolitan Transportation Authority | Entrepreneurs, attorney | Federal Transit Authority, Caltrans, City of Compton, Pacific Bell, LA County Libraries, SCTP, GTE, Compton Police Department, LA Housing Authority, LA Museum of Science & Industry, On Target Communications, Software Creations, The Inner City Computer Society, NFL-Youth Education Town | Videoconferencing, Internet, information kiosks, lecture hall, Circuit Rider Program, distance learning (Cal State Dominguez Hills) |
| **High Desert Telebusiness Center** | Mojave Desert Air Quality Management District | Utilities, local government, Xerox Corporation | Mojave Desert Air Quality Management District, Xerox, IBM, Inland Empire Economic Partnership | Videoconferencing |
| **Highland Telebusiness Center** | City of Highland | County government, finance/insurance | Air Quality Management District, City of Highland, Caltrans, AB2766 Subvention Funds, Intel, PictureTel, Pacific Bell, Hewlett Packard, East Highlands Ranch, Inc., The Hon Company, Patton Sales Corporation, Instant Print Shops | Videoconferencing, SmartCommunity, drop-in availability |
| **Long Beach Telebusiness Center** | Office Technology Group, Inc./Alliance Business Centers | N/A | Metropolitan Transportation Authority (MTA), City of Long Beach | Videoconferencing, secretarial services |
| **The Los Banos Telecenter** | National Telecenters, Inc. | N/A | Self-supporting | Videoconferencing, distance learning (Merced Community College) |

# Appendix A - Telecenters Information

## Non-RABO Telecenters

| | Operator | Employer/User Types | Funding Sources | Other Uses |
|---|---|---|---|---|
| **Oceanside Community Computer Center** | City of Oceanside | N/A | Petroleum Violation Escrow Account through California Energy Commission, City of Oceanside | Training classes (Internet, Web design), CD ROM library |
| **Pomona Telebusiness Workcenter** | Pomona Telebusiness Workcenter | N/A | LA County MTA, Air Quality Management District Subvention Fund | Videoconferencing |
| **The Roseville Telecenter** | Executive Suites Network | N/A | South Placer Transportation Management Association, RABO | N/A |
| **San Francisco Hoteling Center (US GSA)** | United States General Services Administration | Federal government | United States General Services Administration | N/A |
| **Santa Clarita Telebusiness Center** | Santa Clarita Valley TMA | State Senator satellite office, security provider, Internet provider, advertising, County and City of Los Angeles | Soon self-supporting, MTA, International Business Machines, Lockheed California Company, The Newhall Land & Farming Co., Pacific Bell, PictureTel, Southern California Edison, XO Technologies | Videoconferencing, TQM and engineering classes, Wide Area Network connecting to schools, city offices, hospital, etc. |
| **Santa Clarita Valley Telecommuting Center (US GSA)** | United States General Services Administration | Federal government | United States General Services Administration | N/A |
| **Santa Rosa Telecenter (US GSA)** | United States General Services Administration | Federal government | United States General Services Administration | N/A |
| **Siskiyou Resource and Business Center** | Siskiyou County Economic Development Council | N/A | Rural Development Agency, Siskiyou County Economic Development Council | Distance learning, training programs |
| **Thousand Oaks Tele-Community Center** | City of Thousand Oaks | N/A | City of Thousand Oaks, Caltrans, GTE, ViewTek, Compsolutions, Circuit City, The Lamp Show, Channel Islands Internet, SCTP | Distance learning, videoconferencing |
| **Valencia Corporate Telecommuting Center** | The Newhall Land and Farming Co. | Care America | The Newhall Land and Farming Co., CB/Langdon Rieder Corp., Pacific Bell, COMSUL Ltd. | N/A |

# Appendix A - Telecenters Information
## Planned Telecenters

| | Operator | Employer/User Types | Funding Sources | Other Uses |
|---|---|---|---|---|
| **Mission Viejo** | City of Mission Viejo | N/A | N/A | N/A |

# Appendix A - Telecenters Information
## Closed Telecenters

| | Operator | Employer/User Types | Funding Sources | Other Uses |
|---|---|---|---|---|
| **Antelope Valley Fair Telecommuting Center** | Department of Food and Agriculture | Two government agencies, two private companies | Antelope Valley Fair, Caltrans, Dept. of Food and Agriculture (50th District Agricultural Assoc.), City of Lancaster | Videoconferencing |
| **Bay Area Telecommuting Development Program** | BATDP | Pacific Bell | Pacific Bell, State and Federal government | N/A |
| **Chula Vista Downtown Telecenter** | City of Chula Vista | County government, marketing, real estate, health industry, telecommunications | Caltrans, RABO, California Energy Commission, San Diego County Air Pollution Control District, Department of Energy, Panasonic, Cox Communications | Distance learning through University of Phoenix and National University, SmartCommunity member, Internet resources and classes, videoconferencing, telemedicine, and drop-in availability |
| **Coronado Telecenter** | Coronado Transportation Management Association | Student, private business | CTMA, Coronado Bay Bridge toll funds, RABO | None |
| **Davis Birch Lane Telecenter** | Databases & Algorithms, Inc. | Students, drop-in users | Davis Joint Unified School District | Internet access, CD ROM library |
| **Davis Telebusiness Center** | | N/A | RABO, Yolo-Solano Air Quality Management District, Caltrans | Internet access |
| **East County/San Diego Telecommunity Centre** | Private entrepreneur | N/A | San Diego Association of Governments, Caltrans, RABO | Multi-media lab, CD ROM library, drop-in availability, Internet, meeting place for community groups |
| **Modesto Neighborhood Telework Center** | City of Modesto | Lawrence Livermore Labs, private companies | San Joaquin Valley Air Quality Management District, City of Modesto, Pacific Bell, RABO | None |
| **Moorpark Community College** | Moorpark Community College | Students | Moorpark Community College, Caltrans, RABO | Videoconferencing, Internet |

# Appendix A - Telecenters Information
## Closed Telecenters

| | Operator | Employer/User Types | Funding Sources | Other Uses |
|---|---|---|---|---|
| **Ontario Telebusiness Workcenter** | Center for the New West | N/A | City of Ontario, Caltrans, Xerox, Intel, PictureTel, GTE | Videoconferencing |
| **Riverside Telecommuting Workcenter** | City of Riverside | N/A | County of Riverside, Petroleum Violation Escrow Account | N/A |
| **Santa Monica City College Telecenter** | City College, AT&T, SCTP | N/A | City College, AT&T, Kodak, PictureTel, So. CA Emergency Telecommuting Partnership | Videoconferencing |
| **Sherman Oaks/Van Nuys (US GSA)** | US General Services Administration | Federal agencies | US General Services Administration | N/A |
| **Simi Valley Telework Center** | N/A | N/A | Simi Valley Transportation Management Association, Petroleum Violation Escrow Account | Videoconferencing |
| **Sonoma County Transit Telecommute Center** | Sonoma County Transit | N/A | Federal Transit Administration, Sonoma County Transit | N/A |
| **South Placer Telecenters: Auburn** | South Placer Transportation Management Association | N/A | South Placer Transportation Management Association, RABO | N/A |
| **South Placer Telecenters: Rocklin** | | N/A | South Placer Transportation Management Association | N/A |
| **South Placer Telecenters: Citrus Heights** | | N/A | South Placer Transportation Management Association, RABO | N/A |
| **Thousand Oaks/ Westlake (US GSA)** | US General Services Administration | Federal agencies | US General Services Administration | N/A |
| **Vacaville Ulatis Telecenter** | City of Vacaville | Private business, Kaiser | City of Vacaville, RABO, Yolo-Solano Air Quality Management District | None |

# Appendix B - Facilities and Equipment
## RABO Telecenters

| | Opening Date | Size (sq. feet) | Number of Cubicle or Open Area Workstations | Number of Private Offices | Number of Conference Rooms | Other Rooms | Equipment Types |
|---|---|---|---|---|---|---|---|
| **Chula Vista Eastern Telecenter** | August 1994 | 1,500 | 10 | 0 | 1 | Kitchen, lounge, reception area | PCs, Macintosh, Xerox 5320 ZTAS copier, digital message system, MS Office Pro, security system for 24 hour access |
| **Grass Valley TeleBusiness Center** | February 1994 | 3,000 | 10 | 0 | 1 | Lounge, breakroom | PCs, Macintosh, scanners, Picture Tel |
| **San Juan Capistrano Telebusiness Center** | March 1995 | 2,100 | 6 | 5 | 2 | Reception + break area | AT&T Vistium videoconferencing, IBM 486s, inside bike storage and showers |
| **Vacaville Telecenter** | October 1994 | 625 | 8 | 1 | 1 | Break area | IBMs, Macintoshs, including Apple Quadra 630 and Compaq Prolinea 80486s |
| **Ventura Community College Telecenter** | April 1995 | 682 | 4 | 1 | 1 | On campus | IBM 486s, Macintosh 7100 Power PC |

# Appendix B - Facilities and Equipment
## Non-RABO Telecenters

| | Opening Date | Size (sq. feet) | Number of Cubicle or Open Area Workstations | Number of Private Offices | Number of Conference Rooms | Other Rooms | Equipment Types |
|---|---|---|---|---|---|---|---|
| **Anaheim Landmark Telebusiness Center** | June 1994 | 6,700 | 15 | 0 | 2 | Computer room, kitchen, lounge | PictureTel 24", ISDN |
| **Antelope Valley Telebusiness Center I** | January 1992 | 2,669 | 15 | 5 | 0 | N/A | Intel Videoconferencing system |
| **Antelope Valley Telebusiness Center II** | January 1994 | 4,910 | 40 | 0 | 0 | N/A | N/A |
| **Bishop Paiute Telework Center** | June 1994 | 7,060 | 6 | 0 | 0 | N/A | N/A |
| **Compton Blue Line Televillage** | March 1996 | 1,753 | 2 | 0 | 0 | N/A | 12 IBM Pentium 75s, Desktop Proshare |
| **High Desert Telebusiness Center** | October 1991 | 2,065 | 8 | 0 | 0 | N/A | 486s, Gateway Pentium 120 MHz, voice mail, Intel + PictureTel 1000 videoconferencing system, day care |
| **Highland Telebusiness Center** | December 1992 | 1,200 | 8 | 0 | 1 | N/A | 486s, Intel ProShare 200 desktop, PictureTel 100 desktop and 1000 videoconferencing systems |
| **Long Beach Telebusiness Center** | March 1995 | 5,500 | 27 | 10 | 1 | Kitchen | N/A |
| **The Los Banos Telecenter** | August 1994 | 3,000+ | 3 | 8 | 1 | N/A | ISDN, Centrex services |
| **Oceanside Community Computer Center** | April 1997 | 3,000 | 30 | 0 | 1 (Civic center) | N/A | IBMs, 3 Macintosh |
| **Pomona Telebusiness Workcenter** | March 1994 | 3,200 | 3 | 8 | 1 | Training room, kitchen, reception area | HP 486s, Macintosh Quadra 650, Intel ProShare, PictureTel 100 and s1000 videoconferencing systems |

# Appendix B - Facilities and Equipment
## Non-RABO Telecenters

| | Opening Date | Size (sq. feet) | Number of Cubicle or Open Area Workstations | Number of Private Offices | Number of Conference Rooms | Other Rooms | Equipment Types |
|---|---|---|---|---|---|---|---|
| **The Roseville Telecenter** | September 1993 | 1,662 | 16 | 0 | 1 | N/A | N/A |
| **San Francisco Hoteling Center** | 1997 | N/A | 10 | 0 | 1 | N/A | ISDN, satellite dish scanner |
| **Santa Clarita Telebusiness Center** | March 1994 | 3,500 | 15 | 5 | 1 | N/A | IBM 486 personal computers |
| **Santa Clarita (US GSA)** | February 1994 | 5,000 | 32 | 0 | 3 | Kitchenette | 486 personal computers |
| **Santa Rosa (US GSA)** | October 1995 | 420 | 4 | 0 | 0 | N/A | 486 personal computers |
| **Siskiyou Resource and Business Center** | March 1997 | 700 | 5 | 0 | 0 | N/A | 486 100MHz personal computers |
| **Thousand Oaks Tele-Community Center** | April 1997 | 2,000 | 3 | 1 | 1 | Demonstration area, classroom | PictureTel videoconferencing system |
| **Valencia Corporate Telecommuting Center** | September 1993 | 10,000 | 10 | 0 | In Industrial Center | N/A | Tenants are rented space and provide own equipment |

# Appendix B - Facilities and Equipment
## Planned Telecenters

| | Proposed Opening Date | Size (sq. feet) | Number of Cubicle or Open Area Workstations | Number of Private Offices | Number of Conference Rooms | Other Rooms | Equipment Type |
|---|---|---|---|---|---|---|---|
| **Mission Viejo** | October 1997 | N/A | N/A | N/A | N/A | N/A | N/A |

# Appendix B - Facilities and Equipment
## Closed Telecenters

| | Dates Open | Size (sq. feet) | Number of Cubicle or Open Area Workstations | Number of Private Offices | Number of Conference Rooms | Other Rooms | Equipment Types |
|---|---|---|---|---|---|---|---|
| **Antelope Valley Fair Telecommuting Center** | 8/94-6/96 | 8,000 | 20 | 4 | 2 | N/A | 25 PCs, 5 Macintoshs |
| **Bay Area Telecommuting Development Program** | 9/93-2/94 | N/A | 30 | 3 | N/A | N/A | ISDN |
| **Chula Vista Downtown Telecenter** | 2/95-4/97 | 1,700 | 8 | 1 | 2 | Kitchenette, classroom | Panasonic videoconferencing, Macintosh 7100 AV/CD/16MB, 486 DX 66 MHz, Apple Scan Maker II HR, security system |
| **Coronado Telecenter** | 10/93-6/96 | 725 | 4 | 0 | 1 | Kitchen | 486 personal computers |
| **Davis Birch Lane Telecenter** | 2/94-95 | 1,300 | 16 | 0 | 0 | N/A | 80486 PCs, Local Area Network with 300 software packages, 500 disc CD ROM library, HP Scanner |
| **Davis Telebusiness Center** | 11/94-95 | 932 | 10 | 0 | 0 | N/A | 486 PCs, laser printers |
| **East County/San Diego Telecommunity Centre** | 3/95-11/95 | 1,550 | 6 | 0 | 1 | Multi-media lab, lounge, kitchenette | Computer overhead RGB projector, Macintosh and PCs, Local Area Network, CD ROM library |
| **Modesto Neighborhood Telework Center** | 8/94-11/95 | 2,300 | 6 | 2 | 1 | N/A | IBM 486s, Macintosh, laser printers, color printers |
| **Moorpark Community College** | 4/95-6/96 | 900 | 5 | 0 | 1 | Administrator's office | 486s, Macintosh 7100 Power PC, PictureTel Venue 2000, ISDN lines |
| **Ontario Telebusiness Workcenter** | 10/91-6/96 | 3,200 | 18 | 2 | 2 | Kitchen, lounge | 386 and 486 PCs, PictureTel videoconferencing system, laser printers |

# Appendix B - Facilities and Equipment
## Closed Telecenters

| | Dates Open | Size (sq. feet) | Number of Cubicle or Open Area Workstations | Number of Private Offices | Number of Conference Rooms | Other Rooms | Equipment Types |
|---|---|---|---|---|---|---|---|
| **Riverside Telecommuting Workcenter** | 11/91-7/95 | 3,800 | 21 | 5 | N/A | N/A | N/A |
| **Santa Monica City College Telecenter** | 3/94-5/94 | N/A | 20 | N/A | 1 | N/A | N/A |
| **Sherman Oaks/Van Nuys (US GSA)** | 2/94-1/95 | N/A | 28 | N/A | N/A | N/A | N/A |
| **Simi Valley Telework Center** | 6/93-12/95 (unofficially open: 1991) | N/A | 4 | 0 | 0 | Reception area | Intel and PictureTel videoconferencing |
| **Sonoma County Transit Telecommute Center** | 12/94-6/96 | N/A | 4 | 0 | 0 | N/A | N/A |
| **South Placer Telecenters: Auburn** | 3/94-1995 | 1,685 | 12 | 0 | 1 | N/A | N/A |
| **South Placer Telecenters: Rocklin** | 10/94-1995 | 1,600 | 12 | 0 | 1 | N/A | N/A |
| **South Placer Telecenters: Citrus Heights** | 3/94-1/95 | 1,203 | 9 | 0 | 1 | N/A | N/A |
| **Thousand Oaks/ Westlake (US GSA)** | 2/94-1/95 | N/A | 24 | N/A | N/A | N/A | N/A |
| **Vacaville Ulatis Telecenter** | 4/94-6/95 | 540 | 7 | 0 | 0 | Break area | Compaq 80 486s with 9600 baud internal modems |

# Appendix C - Charges
# RABO Telecenters

| | Workstation | Private Office | Conference Room | Videoconference | Fax (per page) | Copies (per page) | Printing | Other |
|---|---|---|---|---|---|---|---|---|
| **Chula Vista Eastern Telecenter** | $40/day<br>$460/mo | N/A | $10/hr.<br>$30/(4 hrs) | N/A | $.50/p. | $.07 | $.10 | N/A |
| **Grass Valley TeleBusiness Center** | $12/day<br>$200/mo.<br>Drop-ins: $5/hr, $20/day | N/A | $10/hr.<br>Free for tenants | $50/hr.<br>Free for tenants | Tenants:<br>Out-toll<br>In-$.25/p<br>Others:<br>$1/p. | Tenants:<br>$.04<br>Others:<br>$.07 | Laser printer:<br>$.25 | ISDN: $4/day + tolls<br>Voice mail: $20 month |
| **San Juan Capistrano Telebusiness Center** | $50-$95/mo. | $450-$650/mo. | $20/35/hr.<br>$100/160/day | Tenants:<br>$90/(1st hr.)<br>$60/(2nd hr.)<br>$50/(3+ hr.)<br>Others:<br>$175/hr.<br>$95/(2nd hr.)<br>$75/(3+ hr.) | Free for tenants<br>Others:<br>$3.00 1st page, then $1/p. | N/A | N/A | E-mail: free for tenants, $25/mo. for others<br>Document scanning: $4/p.<br>Computer rental: $10/(1st hr)<br>$5-10/(2nd hr.)<br>Home page design: $50-$150 |
| **Vacaville Telecenter** | $10/hr., $25/day, $75/w., $200/mo.<br>Students: $25/mo. | N/A | $10/hr. | N/A | N/A | N/A | N/A | N/A |
| **Ventura Community College Telecenter** | $7.50/hr., $50-$250/mo. (depending on frequency) | N/A | N/A | N/A | Free for tenants<br>Others:<br>Out-$1/p.<br>In-$.50/p. | 30 free per month, then $.04 | N/A | N/A |

# Appendix C - Charges
## Non-RABO Telecenters

| | Workstation | Private Office | Conference Room | Videoconferencing | Fax (per page) | Copies (per page) | Printing | Other |
|---|---|---|---|---|---|---|---|---|
| **Anaheim Landmark Telebusiness Center** | $295/mo.<br>$240/mo.<br>(w/o comp.) | $295+/mo. | $10/hr. | $10/hr + tolls | Out: $2<br>In: $1 | $.03-$07 | N/A | Secretarial services: varies |
| **Antelope Valley Telebusiness Center** | $17/d.<br>$380/mo. | $19/d.<br>$420/mo. | N/A | N/A | tolls | free | N/A | N/A |
| **Bishop Paiute Telework Center** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Compton Blue Line Televillage** | Annual membership dues: Adults-$10, Students-$5, Seniors-free, Families-$20, Organizations-$50 | | | | | | N/A | N/A |
| **High Desert Telebusiness Center** | $247.44/mo. | N/A | N/A | N/A | tolls | 50 free/mo.<br>then $.03 | N/A | Extra modem line: $45.10 |
| **Highland Telebusiness Center** | $10/hr<br>$30/day<br>$250/mo. | N/A | N/A | $50/hr. | N/A | N/A | N/A | $8/hr for Internet access |
| **Long Beach Telebusiness Center** | $15/hr.<br>$60/day<br>$300-450/mo. | $500-700/mo. | Non-tenants:<br>$15/hr. | From $30/hr (2 lines, no technician) to $410/hr. (24 lines and a technician) | $1 | $0.08 | N/A | Word processing: $22/hr.<br>Data input: $22/hr.<br>Special projects: $20/hr. |
| **The Los Banos Telecenter** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Oceanside Community Computer Center** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Pomona Telebusiness Workcenter** | $125/mo. | $350/mo. | N/A | N/A | N/A | N/A | N/A | N/A |

# Appendix C - Charges
# Non-RABO Telecenters

| | Workstation | Private Office | Conference Room | Videoconferencing | Fax (per page) | Copies (per page) | Printing | Other |
|---|---|---|---|---|---|---|---|---|
| **The Roseville Telecenter** | $20/day | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **San Francisco Hoteling Center** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Santa Clarita Telebusiness Center** | $200/mo. | $350-$400/mo. | Free | $25-$50/(1-3 hrs.) | Out: $.50 | $0.05 | N/A | N/A |
| **Santa Clarita (US GSA)** | $238/mo. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Santa Rosa (US GSA)** | $100/mo. | N/A | N/A | $75-$95/hr. | tolls | $0.03 | N/A | N/A |
| **Siskiyou Resource and Business Center** | $5/hour $25/day | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Thousand Oaks Tele-Community Center** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Valencia Corporate Telecommuting Center** | N/A | $1.25-$1.75 per square foot per month depending on length of lease | | | | | N/A | N/A |

# Appendix C - Charges
# Closed Telecenters

| | Workstation | Private Office | Conference Room | Videoconferencing | Fax (per page) | Copies (per page) | Printing | Other |
|---|---|---|---|---|---|---|---|---|
| **Antelope Valley Fair Telecommuting Center** | $5/hour<br>$20/day<br>$90/week<br>$300/mo. | $200-$400/mo. | N/A | N/A | N/A | N/A | N/A | N/A |
| **Bay Area Telecommuting Development Program** | $400/mo. | $600/mo. | N/A | N/A | N/A | N/A | N/A | N/A |
| **Chula Vista Downtown Telecenter** | $40/day<br>$460/mo | N/A | $15/25/hr.<br>$55/75/<br>(4 hrs) | varies | $.50/p. | $.07 | $.10 | N/A |
| **Coronado Telecenter** | 10/93-6/96<br>no charge | N/A | N/A | N/A | Out: $.10 (local)<br>$.30 (long distance)<br>In: $.10 | $.04<br>$.05<br>(laser) | N/A | N/A |
| **Davis Birch Lane Telecenter** | $5/hr<br>$6/hr (students)<br>$42/mo.<br>$69/mo (family) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Davis Telebusiness Center** | | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **East County/San Diego Telecommunity Centre** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Modesto Neighborhood Telework Center** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Moorpark Community College** | $100-$200/mo. | N/A | N/A | N/A | Out:<br>$2/pg<br>In: $1/pg | included in fee | N/A | N/A |

# Appendix C - Charges
## Closed Telecenters

| | Workstation | Private Office | Conference Room | Videoconferencing | Fax (per page) | Copies (per page) | Printing | Other |
|---|---|---|---|---|---|---|---|---|
| **Ontario Telebusiness Workcenter** | $100/mo. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Riverside Telecommuting Workcenter** | 11/91 N/A 95 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Santa Monica City College Telecenter** | N/A | free (except phone calls) | | | | | | N/A |
| **Sherman Oaks/Van Nuys (US GSA)** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Simi Valley Telework Center** | ~$300/mo. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Sonoma County Transit Telecommute Center** | free | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **South Placer Telecenters: Auburn** | $20/day first month free with 6-month commitment | N/A | | | | | | N/A |
| **South Placer Telecenters: Rocklin** | | | | | | | | N/A |
| **South Placer Telecenters: Citrus Heights** | | | | | | | | N/A |
| **Thousand Oaks/ Westlake (US GSA)** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Vacaville Ulatis Telecenter** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Appendix D - Marketing Tactics
## RABO Telecenters

| | Advertisement Cable TV | Business Journal | Direct Mail (Community) | Fliers | E-mail | Open House | Press Release | Radio | Contact Referral | TV Reporting | School Distribution | Telemarketing (Employer) | Utilities/Garbage Bill Stuffers | Web Page |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chula Vista Eastern Telecenter | | | ● | ● | | ● | ● | | ● | | ● | | | ● |
| Grass Valley TeleBusiness Center | ● | | ● | | | ● | ● | ● | ● | | | | | ● |
| San Juan Capistrano Telebusiness Center | | ● | ● | ● | | ● | ● | | ● | | | | | ● |
| Vacaville Telecenter | ● | | | ● | | ● | ● | ● | ● | | | | | |
| Ventura Community College Telecenter | | | | ● | | | ● | ● | ● | ● | ● | | | |

# Appendix D - Marketing Tactics
## Non-RABO Telecenters

| | Advertisement Cable TV | Business Journal | Direct Mail (Community) | Fliers | E-mail | Open House | Press Release | Radio | Contact Referral | TV Reporting | School Distribution | Telemarketing (Employer) | Utilities/Garbage Bill Stuffers | Web Page |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Anaheim Landmark Telebusiness Center | | | ● | ● | | | ● | ● | | | | | | ● |
| Antelope Valley Telebusiness Center | ● | ● | ● | ● | | ● | ● | ● | ● | ● | ● | ● | | |
| Bishop Paiute Telework Center | | | | | | | | | | | | | | |
| Compton Blue Line Televillage | ● | | | ● | | ● | ● | ● | | ● | | | | ● |
| High Desert Telebusiness Center | | | ● | ● | | | ● | | | | | ● | | ● |
| Highland Telebusiness Center | ● | | ● | ● | ● | ● | ● | ● | ● | ● | | ● | | ● |
| Long Beach Telebusiness Center | ● | | ● | ● | ● | ● | ● | | ● | | | ● | | ● |
| The Los Banos Telecenter | | | | | | | | | ● | | | | | |
| Oceanside Community Computer Center | | | ● | | | | | | | ● | | | | |
| Pomona Telebusiness Workcenter | ● | | | ● | | | | ● | ● | | | | ● | |
| The Roseville Telecenter | | | ● | | | | | | | | | | | |
| San Francisco Hoteling Center | | | | | | | | | | | | | | |
| Santa Clarita Telebusiness Center | | ● | ● | ● | | ● | ● | ● | ● | ● | ● | | ● | ● |
| Santa Clarita (US GSA) | | | | | | | | | | | | | | |
| Santa Rosa (US GSA) | | | | | | | | | | | | | | |
| Siskiyou Resource and Business Center | | | | | | | | | | | | | | |
| Thousand Oaks Tele-Community Center | | | | | | ● | | | | | | | | |
| Valencia Corporate Telecommuting Center | | | | ● | | | ● | | ● | | ● | | | |

# Appendix D - Marketing Tactics
## Closed Telecenters

| | Advertisement Cable TV | Business Journal | Direct Mail (Community) | Fliers | E-mail | Open House | Press Release | Radio | Contact Referral | TV Reporting | School Distribution | Telemarketing (Employer) | Utilities/Garbage Bill Stuffers | Web Page |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antelope Valley Fair Telecommuting Center | | | | ● | | | | | ● | | | | | |
| Bay Area Telecommuting Development Program | | | ● | ● | | | | ● | | | | | | |
| Chula Vista Downtown Telecenter | | | ● | ● | | ● | ● | | ● | | ● | | | ● |
| Coronado Telecenter | ● | | | | | ● | | | | | ● | | | |
| Davis Birch Lane Telecenter | | | | | | | | | | | | | | |
| Davis Telebusiness Center | | | | | | | | | | | | | | |
| East County/San Diego Telecommunity Centre | ● | | | | | ● | | | ● | | ● | | | |
| Modesto Neighborhood Telework Center | | | | | | | ● | | | ● | | | | |
| Moorpark Community College | | | | | | | | | | | ● | | | |
| Ontario Telebusiness Workcenter | | | | | | | | | | | | | | |

# Appendix D - Marketing Tactics
## Closed Telecenters

| | Advertisement Cable TV | Business Journal | Direct Mail (Community) | Fliers | E-mail | Open House | Press Release | Radio | Contact Referral | TV Reporting | School Distribution | Telemarketing (Employer) | Utilities/Garbage Bill Stuffers | Web Page |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Riverside Telecommuting Workcenter | | | | | | | | | ● | | | | | |
| Santa Monica City College Telecenter | | | | | | | | | | | ● | | | |
| Sherman Oaks/Van Nuys (US GSA) | | | | | | | | | | | | | | |
| Simi Valley Telework Center | | | ● | | | | | | | | | | | |
| Sonoma County Transit Telecommute Center | | ● | | | | | ● | ● | | ● | ● | | | |
| South Placer Telecenters: Auburn | | | ● | | | | | | | | | | | |
| South Placer Telecenters: Rocklin | | | ● | | | | | | | | | | | |
| South Placer Telecenters: Citrus Heights | | | ● | | | | | | | | | | | |
| Thousand Oaks/ Westlake (US GSA) | | | | | | | | | | | | | | |
| Vacaville Ulatis Telecenter | | | | ● | | | ● | ● | ● | ● | ● | | | |

# Appendix E - Occupancy Rates

## Open Telecenters

| | Number of Workstations and Offices | Number of Regular Users | Occupancy Rates | Implied Average Frequency of Telecommuting (days per week) |
|---|---|---|---|---|
| **Anaheim Landmark Telebusiness Center** | 15 | 1 | 0.07 | 0.3 |
| **Antelope Valley Telebusiness Center** | 60 | 45 | 0.60 | 4 |
| **Bishop Paiute Telework Center** | 6 | N/A | N/A | N/A |
| **Chula Vista Downtown Telecenter*** | 9 | 4 | 0.21 | 2.4 |
| **Compton Blue Line Televillage** | 2 | 5 | 0.50 | 1 |
| **High Desert Telebusiness Center** | 8 | 4 | N/A | N/A |
| **Highland Telebusiness Center** | 8 | 7 | 0.50 | 2.9 |
| **Grass Valley Telebusiness Center*** | 10 | 6 | 0.34 | 2.8 |
| **Long Beach Telebusiness Center** | 37 | 35 | 0.81 | 4.3 |
| **Los Banos Telecenter** | 11 | 5 | 0.27 | 3 |
| **Oceanside Community Computer Center** | 30 | N/A | N/A | N/A |
| **Pomona Telebusiness Workcenter** | 11 | 6 | 0.41 | 3.8 |
| **The Roseville Telecenter** | 16 | N/A | N/A | N/A |
| **San Francisco Hoteling Center** | 10 | N/A | N/A | N/A |
| **San Juan Capistrano Telebusiness Center*** | 11 | 9 | 0.33 | 2 |
| **Santa Clarita Telebusiness Center** | 20 | 30+ | N/A | N/A |
| **Santa Clarita (US GSA)** | 32 | 14 | 0.31 | 3.5 |
| **Santa Rosa (US GSA)** | 4 | N/A | 0.10 | N/A |
| **Siskiyou Resource and Business Center** | 5 | N/A | N/A | N/A |
| **Thousand Oaks Tele-Community Center** | 4 | N/A | N/A | N/A |
| **Vacaville Telecenter*** | 9 | 7 | 0.18 | 1.2 |
| **Valencia Corporate Telecommuting Center** | 10 | 10 | N/A | N/A |
| **Ventura Community College Telecenter*** | 5 | 12 | 0.66 | 1.4 |

*RABO Centers

# Appendix E - Occupancy Rates
## Closed Telecenters

| | Number of Workstations and Offices | Number of Regular Users | Occupancy Rates | Implied Average Frequency of Telecommuting (days per week) |
|---|---|---|---|---|
| **Antelope Valley Fair Telecommuting Center** | 24 | 7 (1 in 4/96) | 0.01 | 0.2 |
| **Bay Area Telecommuting Development Program** | 35 | N/A | 0.12 | N/A |
| **Chula Vista Eastern Telecenter** | 10 | 10 | 0.41 | 2.1 |
| **Coronado Telecenter** | 4 | 4 | 0.2 | 1 |
| **Davis Birch Lane Telecenter** | 16 | 15-20 drop-ins/day | N/A | N/A |
| **Davis Telebusiness Center** | 10 | 2 | 0.1 | 2.5 |
| **East County/San Diego Telecommunity Center** | 6 | 5 | 0.1 | 0.6 |
| **Modesto Neighborhood Telework Center** | 6 | 10 | 0.21 | 0.6 |
| **Moorpark Community College** | 5 | 2 | 0.08 | 1 |
| **Ontario Telebusiness Workcenter** | 18 | 25 | 0.15 | 0.5 |
| **Riverside Telecommuting Workcenter** | 19 | 22 | 0.12 | 0.5 |
| **Santa Monica City College Telecenter** | 20 | N/A | N/A | N/A |
| **Sherman Oaks/Van Nuys (US GSA)** | N/A | N/A | N/A | N/A |
| **Simi Valley Telework Center** | 4 | 0 | 0 | 0.00 |
| **Sonoma County Transit Telecommute Center** | 4 | 5 | 0.38 | 1.5 |
| **South Placer Telecenters: Auburn** | 12 | N/A | N/A | N/A |
| **South Placer Telecenters: Rocklin** | 8 | N/A | N/A | N/A |
| **South Placer Telecenters: Citrus Heights** | 9 | N/A | N/A | N/A |
| **Thousand Oaks/ Westlake (US GSA)** | N/A | N/A | N/A | N/A |
| **Vacaville Ulatis Telecenter** | 7 | 11 | 0.13 | 0.4 |

# Appendix F
# Table of Telecenter Opening and Closing Dates

| Site | Open | Closed | Months Operating as of June, 1997 |
|---|---|---|---|
| Simi Valley | Jun-91 | Dec-95 | 54 |
| Ontario | Oct-91 | Jun-96 | 56 |
| High Desert | Oct-91 | | 68 |
| Riverside County | Nov-91 | Jul 95 | 44 |
| Antelope Valley - Phase I | Nov-92 | | 55 |
| Highland | Dec-92 | | 54 |
| San Jose (BATDP) | Sep-93 | Feb-94 | 5 |
| Concord (BATDP) | Sep-93 | Feb-94 | 5 |
| Roseville | Sep-93 | | 45 |
| Valencia | Sep-93 | | 45 |
| Coronado | Oct-93 | Jul-96 | 33 |
| Sherman Oaks & Van Nuys (US GSA) | Feb-94 | Jan-95 | 11 |
| Thousand Oaks & Westlake (US GSA) | Feb-94 | Jan-95 | 11 |
| Birch Lane (Davis) | Feb-94 | Jul-95* | 17 |
| Grass Valley | Feb-94 | | 40 |
| Santa Clarita (US GSA) | Feb-94 | | 40 |
| Santa Monica | Mar-94 | May-94 | 2 |
| Auburn | Mar-94 | Jan-95* | 10 |
| Citrus Heights | Mar-94 | Jan-95* | 10 |
| Pomona | Mar-94 | | 39 |
| Santa Clarita Telebusiness | Mar-94 | | 39 |
| Vacaville-Ulatis | Apr-94 | Jul-95 | 15 |
| Vacaville-Alamo | Apr-94 | | 38 |
| Antelope Valley - Phase II | Apr-94 | | 38 |
| Anaheim | Jun-94 | | 36 |
| Bishop Paiute | Jun-94 | | 36 |
| Davis Telebusiness Center | Oct-94 | Jul-95* | 9 |
| Modesto | Aug-94 | Nov-95 | 15 |

*estimated

# Appendix F
## Table of Telecenter Opening and Closing Dates continued

| Site | Open | Closed | Months Operating as of June, 1997 |
|---|---|---|---|
| Los Banos | Aug-94 | | 34 |
| Antelope Valley Fair | Aug-94 | Apr-96 | 20 |
| Chula Vista Eastern | Sep-94 | | 33 |
| Rocklin | Oct-94 | Jun-95* | 9 |
| Chula Vista Downtown | Nov-94 | Apr-97 | 29 |
| Sonoma State | Dec-94 | Jun-96 | 18 |
| Ventura | Dec-94 | | 30 |
| Moorpark | Feb-95 | Jul-96 | 17 |
| East County San Diego | Mar-95 | Nov-95 | 8 |
| Long Beach | Mar-95 | Sep-97 | 30 |
| San Juan Capistrano | Apr-95 | | 26 |
| Santa Rosa (US GSA) | Oct-95 | | 20 |
| Blue Line TeleVillage | Mar-96 | | 15 |
| Siskiyou County | Mar-97 | | 3 |
| San Francisco Hoteling Center (US GSA) | Apr-97 | | 2 |
| Thousand Oaks Tele-Community Center | Apr-97 | | 2 |
| Oceanside | Apr-97 | | 2 |

*estimated

## Appendix G

## Contact List

## RABO PROGRAM SITES

**Chula Vista**
Angie Jarchow
Telecenter Director
1550 East H St. Suite J
Chula Vista, CA 91913
ajarchow@ucsd.edu
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**Grass Valley**
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Western Nevada County TMA
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lolson@nccn.net
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Fax: (916) 265-3260

Sharon Eskelson
Site Administrator
Telecenter Address:
640 East Main St.
Grass Valley, 95959
Phone: (916) 274-6469
Fax: (916) 274-3243
http://www.nccn.net/~lolson/

**San Juan Capistrano**
Chuck Hauswirth
The TeleBusiness Center
31648 Rancho Viejo Road
Suite "B"
San Juan Capistrano, CA 92675
Phone: (714) 443-3444
Fax: (714) 488-3989

**Vacaville**
Ed Huestis
Department of Public Works
City of Vacaville
650 Merchant St.
Vacaville, CA 95688
Phone: (707) 449-5424
Fax: (707) 449-5346

Vacaville Telecenter
1102 Alamo Drive
Vacaville, CA 95687

**Ventura**
Ventura Community College
Candy Robinson
Site Administrator
4667 Telegraph Rd
Ventura 93003
candy2@west.net
Phone: (805) 639-2170
Fax: (805) 639-2172

## OTHER TELECENTER SITES

**Anaheim**
no current contact
Landmark TeleBusiness Center
201 Center St.
Anaheim, CA 92805
Phone: (714) 517-8611
Fax: (714) 956-4210

**Antelope Valley Telebusiness Center**
Evelyn Gutierrez
Antelope Valley Telebusiness Center
County of Los Angeles
500 W. Temple Street, Room 526
Los Angeles, CA 90012
Phone: (213) 974-2495
Fax: (213) 621-3172

Dorothy M. Mosley, Administrator
Antelope Valley Telebusiness Center
251 East Avenue K-6, Suite A
Lancaster, CA 93534
Phone: (805) 726-7700
Fax: (805) 726-7728

**Bishop**
Bishop Paiute Telework Center
Cynthia Andrade
Operations Manager
PO Box 1818
Bishop, CA 93515
Phone: (619) 872-5000
Fax: (619) 872-5001
http://www.paiute.com/telework.htm

**Blue Line TeleVillage**
Krishna Tabor
Director
310 N. Willowbrook, Suite 5B
Compton, CA 90221
Phone: (310) 604-7717
talkingdrum@mhs.scbbs.com
http://www.televillage.org

**High Desert**
Pete Peterson
High Desert Telebusiness Center
15428 Civic Drive, Suite 301
Victorville, CA 92392-2283
Phone: (619) 952-1212
Fax: (619) 245-2022

**Highland**
John Chiu
Highland Telebusiness Center
7223 Church St., Suite A-12
Highland, CA 92346
Phone: (909) 425-8060
Fax: (909) 425-8062

**Long Beach**
Tom Leary
Long Beach Telebusiness Center
City of Long Beach
333 W. Ocean Blvd.
Long Beach 90802
toleary@ix.netcom.com
Phone: (310) 570-6157
Fax: (310) 570-6662
Telecenter address:
Atlantic Avenue, Suite 220
Long Beach, CA 93635

## OTHER TELECENTER SITES continued

**Los Banos**
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National Telecenters Inc.
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Los Banos CA 93635
Phone: (209) 826-4001
Fax: (209) 826-4001 (call first)
The Los Banos Telecenter
545 J St.
Los Banos, CA 93635
Phone: (209) 826-7730
Fax: (209) 826-7731

**Oceanside**
Oceanside Community Computer Center
Deborah Polich
321 North Nevada St.
Oceanside, 92054
Oceanside Public Library
330 North Coast Highway
Oceanside CA, 92054
Phone: (760) 966-4110
Fax: (760) 966-4111

**Pomona**
Karla Veatch
Pomona Telebusiness Workcenter
185 W. Arrow Highway
Pomona, CA 91767
Phone: (909) 392-4500
Fax: (909) 392-4531

**Roseville**
3017 Douglas Bouldvard Suite 300
Roseville, CA 95661
Phone: (916) 774-7100

**Santa Clarita**
Connie Worden-Roberts
Santa Clarita Telebusiness Center
Santa Clarita Valley TMA
25709 Rye Canyon Road
Valencia, CA 91355
Phone: (805) 295-0006
Fax: (805) 294-8188
http://www.scvleon.com.telecenter

**Siskiyou County**
John Halligan
Siskiyou Resource and Business Center
6232 Autumn Drive
Weed, CA 96094
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Eric Herrick
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Phone: (916) 842-1638
Fax: (916) 842-2685

## OTHER TELECENTER SITES continued

**Thousand Oaks Tele-Community Center**
Shirley Cobb
Media Services Office
City of Thousand Oaks
2100 Thousand Oaks Blvd
Thousand Oaks, CA 91362
Phone: (805) 449-2122
Fax: (805) 449-2185

**US GSA**
**(Santa Clarita GSA Telecenter, Santa Rosa Telecenter, and San Francisco Hoteling Center)**
Charles Smith or Sam Yoshida
US General Services Administration
450 Golden Gate Avenue
9 PE
San Francisco, CA 94102
Phone: (415) 522-3202 (Charles Smith)
Phone: (415) 522-3192 (Sam Yoshida)
Fax: (415) 522-3116

**San Francisco Hoteling Telecenter**
450 Golden Gate Ave.
San Francisco, CA 94105

**Santa Clarita Telecenter**
28460 Avenue Stanford Suite 215
Santa Clarita, CA

**Santa Rosa Telecenter**
Room 317
Federal Building
777 Sonoma Avenue, Santa Rosa

**Valencia**
James S. Backer
The Newhall Land and Farming Company
Valencia Corporate Telecommuting Center
25709 Rye Canyon Road
Valencia, CA 91355
Phone: (805) 255-4046
Fax: (805) 259-2957

## PLANNED TELECENTERS

**Mission Viejo**
Dennis Wilberg
Assistant City Manager/Director of Public Works
City of Mission Viejo
25909 Pala
Mission Viejo, CA 92691
Phone: (714) 470-3000
Fax: (714) 470-9140

## CLOSED TELECENTERS

**Antelope Valley Fair**
Debbie Smith
Antelope Valley Fair
155 East Ave. "I"
Lancaster, CA 93535
Phone: (805) 948-6060 Ext. 211
Fax: (805) 942-2135

**Bay Area Telecommuting Development Program**
No current contact information
Previous contact information:
Paul Hirsch
2150 Webster Street
Oakland, CA 94612
Phone: (510) 645-8624
Fax: (510) 465-7516

**City of Chula Vista Downtown Telecenter**
Barbara Bamberger
Environmental Resource Manager
City of Chula Vista
P.O. Box 1087
276 4th Avenue
Chula Vista, CA 91910
Phone: (619) 691-5296
Fax: (619) 585-5612

**Coronado**
Kevin Ham
Coronado TMA
1224 10th St
Suite 103
Coronado, CA 92118
Phone: (619) 522-6575

**Davis Telebusiness Center**
**Birch Lane Telecenter**
No current contact information
Previous contact information:
Craig Harris
Databases and Algorithms, Inc.
P.O. Box 350
Davis, CA 95617
Phone: (916) 758-6096
Fax: (916) 758-6548

**East County San Diego Tele*Community Centre**
No current contact information
Previous contact information:
Robert Mance
Mind*Share Tech*Knowledgies, Inc.
2992 Navajo
El Cajon, CA 92020
Phone: (619) 667-0303
Fax: (619) 667-0390

**Modesto**
Harlan Westenberg
City of Modesto
City Hall - 11th & H Street
PO Box 642
Modesto, CA 95353
Phone: (209) 577-5473

**Moorpark**
Dr. Edward Tennen
Dean, Learning Resources
Moorpark Community College
7075 Campus Road
Moorpark, CA 93021
Phone: (805) 378-1447

## CLOSED TELECENTERS continued

**Ontario**
Lorri Wild
La Jolla Institute
250 West First Street
Suite 325
Claremont, CA 91711
Phone: (909) 445-1088

**Riverside**
Bill McCaughey
Riverside County Transportation Commission
3560 University Avenue, Suite 100
Riverside, CA 92501
Phone: (909) 787-6600
Fax: (909) 787-6603

**Santa Monica City College Telecenter**
No current contact information
Previous contact information:
Stan King
AT&T
8001 Irvine Center Drive, Room 204
Irvine, CA 92718
Phone: (714) 727-5796

**Sherman Oaks and Van Nuys**
**Thousand Oaks and Westlake**
No current contact information
Previous contact information:
James D. Wharrie
U.S. General Services Administration
888 S. Figueroa St., 11th Floor
Los Angeles, CA 95661
Phone: (213) 894-1810
Fax: (213) 894-6629

**Simi Valley**
No current contact information
Previous contact information:
Charles Coffey
Simi Valley Telework Center
40 West Cochran Street
Simi Valley, CA 93065
Phone: (805) 526-3900
Fax: (805) 526-6234

**Sonoma State University**
No current contact information
Previous contact information:
Bryan Albee
Sonoma County Transit Telecommute Center
355 W. Robles Avenue
Santa Rosa, CA 95407
Phone: (707) 585-7516
Fax: (707) 585-7713

**South Placer: (Auburn, Citrus Heights, & Rocklin)**
Aileen Foley Cline
South Placer County TMA
3001 Douglas Boulevard, Suite 120
Roseville, CA 95661
Phone: (916) 773-4449
Fax: (916) 773-4147

## PLANNED BUT NEVER OPENED

**Encinitas**
Richard Phillips
City Manager's Office
505 South Vulcan Avenue
Encinitas, CA 92024
Phone: (619) 633-2616
Fax: (619) 633-2627

**Irvine**
No current contact information
Previous contact information:
Robert Zack
Interactive Intelligence Centers
Mailing Address:
25072 Alicia Drive
Dana Point CA 92629
Telecenter Address:
Jamboree Center
2 Park Plaza, Suite 100
Irvine, CA 92714
Phone: (714) 489-8055
Fax: (714) 489-0589

**Palos Verdes Peninsula**
Brad Lindahl
Palos Verdes Peninsula Telecenter
City of Redondo Beach
415 Diamond Street
Redondo Beach, CA 90277
Phone: (310) 372-1171 Ext. 2286
Fax: (310) 372-8021

**San Luis Obispo**
Brandon Jones
Anita Broughton
San Luis Obispo Council of Governments
1150 Osos Street, Suite 202
San Luis Obispo, CA 93401
Phone: (805) 546-4219

Linda Dolling
Caltrans District 5 Regional Planner
271 South Street
San Luis Obispo, CA 93401
Phone: (805) 549-3648

**Santa Cruz**
Marty Ackerman
City of Santa Cruz
323 Church Street
Santa Cruz, CA 95060
Phone: (408) 429-3036
Fax: (408) 426-6851

**Torrance**
Henry Sakamoto
Transportation Planning Department
City of Torrance
3031 Torrance Blvd.
Torrance, CA 90503
Phone: (310) 618-5990
Fax: (310) 618-5829

## EXECUTIVE SUITES

**HQ Network Systems**
120 Montgomery Street
Suite 2350
San Francisco, CA 94101
Phone: (415) 781-7811

**Executive Office Network**
777 Campus Commons Road
Suite 200
Sacramento, CA 95825
Phone: (916) 565-7400

**Office Technology Group Executive Centers**
One World Trade Center
Suite 800
Long Beach, CA 98031
Phone: (310) 983-8125
Fax: (310) 983-8199