UC Berkeley
Earlier Faculty Research

Title
Employee Transportation Coordinators: A New Profession in Southern California

Permalink
https://escholarship.org/uc/item/01c9x8mh

Authors
Wachs, Martin
Giuliano, Genevieve

Publication Date
1992-04-01

eScholarship.org Powered by the California Digital Library
University of California



Employee Transportation Coordinators: A New Profession in Southern California

Martin Wachs
Genevieve Giuliano

April 1992
Working Paper, No. 99

The University of California
Transportation Center

University of California
Berkeley, CA 94720

The University of California Transportation Center

The University of California Transportation Center (UCTC) is one of ten regional units mandated by Congress and established in Fall 1988 to support research, education, and training in surface transportation. The UC Center serves federal Region IX and is supported by matching grants from the U.S. Department of Transportation, the California State Department of Transportation (Caltrans), and the University.

Based on the Berkeley Campus, UCTC draws upon existing capabilities and resources of the Institutes of Transportation Studies at Berkeley, Davis, and Irvine; the Institute of Urban and Regional Development at Berkeley; the Graduate School of Architecture and Urban Planning at Los Angeles; and several academic departments at the Berkeley, Davis, Irvine, and Los Angeles campuses. Faculty and students on other University of California campuses may participate in Center activities. Researchers at other universities within the region also have opportunities to collaborate on selected studies. Currently faculty at California State University, Long Beach, and at Arizona State University, Tempe, are active participants.

UCTC's educational and research programs are focused on strategic planning for improving metropolitan accessibility, with emphasis on the special conditions in Region IX. Particular attention is directed to strategies for using transportation as an instrument of economic development, while also accommodating to the region's persistent expansion and while maintaining and enhancing the quality of life there.

The Center distributes reports on its research in working papers, monographs, and in reprints of published articles. For a list of publications in print, write to the address below.



University of California Transportation Center

108 Naval Architecture Building
Berkeley, California 94720
Tel: 415/643-7378
FAX: 415/643-5456

Authors of papers reporting on UCTC-sponsored research are solely responsible for their content. This research was supported by the U.S. Department of Transportation and the California State Department of Transportation, neither of which assumes liability for its content or use.

Employee Transportation Coordinators: A New Profession in Southern California

Martin Wachs
Graduate School of Architecture and Urban Planning
University of California at Los Angeles

Genevieve Giuliano
School of Urban and Regional Planning
University of Southern California

Working Paper, No. 99

The University of California Transportation Center
University of California at Berkeley

Introduction

Transportation demand management, or TDM, has emerged as a policy of choice for responding to growth, congestion, air pollution, and constrained transportation budgets. TDM is aimed at reducing congestion by restricting travel demand, rather than by providing more transportation capacity. It includes strategies such as shifting solo drivers to carpools or transit, allowing more employees to work at home, or adjusting work schedules to avoid peak period auto travel.[1]

Because of the growing emphasis on demand management, American workers are increasingly coming into contact with a new breed of transportation professional - the Employee Transportation Coordinator, or ETC for short. The ETC is the person at a work site responsible for promoting and organizing programs that encourage commuting to and from work via modes other than the singly occupied automobile. The ETC disseminates information about bus and transit schedules, and may also sell discounted transit tokens or passes. In addition, the ETC is responsible for carpool and vanpool matching and the promotion of pooling among members of the workforce. This may involve the distribution of promotional information, answering employee inquiries, and administrative tasks such as preparing bills for vanpool participants. The ETC may also be the person responsible for organizing an employer's telecommuting program where such a program exists. He or she is often the link between the employment site and regional ridesharing agencies, and at work centers which feature the existence of a transportation management organization (TMO), he or she also may be the liaison between the work site and the TMO to which it belongs. In short, the ETC is the work site's expert on commute alternatives.

"ETC" has become a recognized job title during the past ten years, especially in Southern California, and the number of people calling themselves by this title has escalated rapidly during the last five years.[2] This reflects an enormous shift to employer-based TDM programs throughout the country. Some are required by local trip reduction ordinances, some are included in congestion management plans, and some are explicitly

---

[1]Genevieve Giuliano and Martin Wachs. "Responding to Congestion and Traffic Growth: Transportation Demand Management," forthcoming in Jay Stein, ed., Growth Management and Sustainable Development, Sage Publications, 1992.

[2]A recent survey of the members of the Association for Commuter Transportation(ACT) has shown that 40% of its membership is composed of ETCs.

adopted as "transportation control measures" in air quality programs. TDM programs have increasingly become mandatory rather than voluntary, and often incorporate specific trip reduction objectives. Some of these mandatory programs require the designation of ETCs, while others do not formally require the creation of the position of ETC. The Clean Air Act Amendments of 1990 require approximately a dozen American cities which are considered severe non-attainment areas to adopt mandatory ridesharing programs, so the role of the ETC is likely to increase substantially in the very near future.

Despite the increasing number of ETCs nationally, the emergence of formal ETC training programs, and the formation of professional organizations composed primarily of ETCs, little is known about the people who are employed as transportation coordinators. There is interest in determining more about their gender, ethnicity, age, and educational backgrounds. It would also be helpful to understand something about their training and professional preparation for their positions, how they were selected for their positions, and how much of their working time is devoted to their ETC assignments. In addition, it would be interesting to gather a cross section of the opinions of ETCs regarding the relative effectiveness of various measures for encouraging commuters to rely less upon their singly occupied automobiles. This paper provides a description of the ETCs of the Los Angeles metropolitan area, and answers some of the foregoing questions for the first time.

The Context: Regulation XV of the South Coast Air Quality Management District

The Los Angeles area probably has a larger number of ETCs than any other metropolitan area nationally, because it is subject to Regulation XV of the South Coast Air Quality Management District (SCAQMD). This regulation is part of the regional plan for meeting federal and state air quality standards in the fast growing automobile oriented Los Angeles area (which includes Los Angeles, Orange, Riverside and part of San Bernardino Counties), whose conditions of topography, prevailing winds, and long hours of sunlight all contribute to its famous smog.

Also known as "The Commuter Program," Regulation XV requires employers to take responsibility for encouraging workers to consider alternatives to commuting in single occupant automobiles, including public transit, carpooling, vanpooling, walking, telecommuting, and cycling. Regulation XV is giving rise to probably the single largest effort at "transportation demand management" undertaken anywhere. Since the 1990

federal Clean Air Act Amendments require a number of other "non-attainment areas" to initiate programs of this type, experience with Regulation XV has national significance.

Regulation XV was adopted by the Board of the SCAQMD in October of 1987, and its implementation began July 1, 1988. It requires that public and private employers (firms, government agencies, schools, hospitals, etc.) having 100 or more workers at any work site complete and file a plan for that site by which they intend to increase the Average Vehicle Ridership (AVR) to a specified level within one year of the SCAQMD's approval of its plan. AVR is defined as the number of workers arriving at the site between the hours of six and ten in the morning, divided by the number of vehicle arrivals at the site during the same period. To account for day-to-day variations and to allow credit for compressed work week programs, the AVR is calculated based on aggregate values over a five-day work week. AVR is determined by surveying the workforce, and employers are required to achieve a response rate of at least 75% when surveying their workers. Employees who do not respond to the survey are assumed to be driving to work alone.

Employment sites in the central area of Los Angeles are assigned a target AVR of 1.75, and employers in low density, outlying areas are expected to aim for a target AVR of 1.3. Intermediate areas, which constitute most of the area covered by the regulation, have AVR targets of 1.5. After passage of one year, the employer again receives notice, and must again determine the AVR of its workforce. If it has failed to meet its target AVR, it must revise its plan and implement the revisions during the second year. Failure to achieve the target AVR is not a violation of the regulation, but failure to implement the plan is a violation punishable by fines which have in some instances exceeded $150,000.

The plan which accompanies the AVR survey results and calculations may consist of any number of incentives and disincentives by which the company or agency plans to increase its AVR to the target in the succeeding year, if it is not already achieving its target. A wide range of such incentives has been included in the plans submitted thus far. Typical examples include the institution of free parking and preferential parking locations for carpools and vanpools, and the provision of a location at the work site at which monthly transit passes are sold. Others have added financial incentives, such as paying part of the cost of a seat in a vanpool or part of the cost of a monthly transit pass. Many have adopted carpool and vanpool matching procedures, and most have added promotional activities, such as posters, prizes, and events promoting ridesharing. A few have added

activities on site, such as automatic teller machines, health clubs, and eating facilities, to reduce the employees' needs for automobiles during the course of the work day. Some have tried clever and off-beat incentives, such as an express line in the cafeteria for carpoolers, vanpoolers and transit users only. Disincentives to discourage driving alone may also be a part of the plan, but disincentives have thus far been used far less frequently than incentives. An example of a disincentive is the withdrawal of an employee parking subsidy which has previously been given to workers who drive to work alone.

An important requirement of Regulation XV is that each affected worksite designate at least one employee to become a certified Employee Transportation Coordinator. The "ETC" must complete a three-day training program prior to the submission of the first plan, and must receive one day per year of "up-date" training in order to remain certified. Failure to have a certified (officially trained) ETC is a violation of the regulation, and can result in a substantial fine. In most cases the ridesharing plans submitted by the work sites are initially prepared and annually updated by the ETCs, who are also generally responsible for negotiating with the SCAQMD in case some provisions of the plans are disputed or found inadequate. The ETC is in addition presumed to be the person at the worksite most responsible for informing the workers of each worksite's commute options and incentive programs.

As of February 6, 1992, some 7,665 work sites had been notified that they are required to participate in the program; 6,124 work sites had filed plans at least once under Regulation XV; and some 5,413 work sites were engaged in implementing plans that had already been approved.[3] It can therefore be concluded that there must be approximately 5,500 trained ETCs in the Southern California area, and that there will soon be at least 2,000 additional people having this designation. This large number of ETCs adds to our curiosity as to who they are and what they are doing.

---

[3]South Coast Air Quality Management District. Transportation Programs Division Regulation XV Status Report Summary, February 10, 1992.

Progress in Achieving the Ridesharing Goals of Regulation XV

The regulation's impacts on ridesharing behavior are so far quite encouraging.[4] Overall average vehicle ridership, as defined by the SCAQMD, has increased in one year among those firms from 1.21 to 1.25, a statistically significant increase of about 2.7%. Of the employment sites included in the sample, about 69% experienced increases in AVR during the first year, with just about twenty percent of the employment sites experiencing increases of more than ten percent in their AVRs. Among employment sites in the sample, the proportion of workers driving to work alone decreased from 75.7% in the first survey to 70.9% in the second. The largest shift in mode was toward carpooling, while vanpooling also increased significantly. The public transit share and the proportion of workers walking and cycling, however, did not increase. In the aggregate, workers used 84 automobiles per 100 employees for commuting during the peak hours prior to implementing the required plans, and a year later they were using 80 cars per 100 employees.

There was great variation in the extent to which employment sites are meeting the goals of Regulation XV, and many firms have done more poorly than others. In general, the greatest improvement in AVR was found among employers whose initial AVRs were among the lowest, and interestingly we found that the size of the work force at the sites was not statistically associated with the extent of improvement in AVR.

More than two-thirds of the work sites in the sample included some form of preferential parking arrangements for carpools and vanpools, for example, while less than four percent of the work sites introduced parking pricing as a strategy to encourage ridesharing. In addition to preferential parking locations, the most widely adopted incentives included financial incentives to users of public transit (49% of employers), a guaranteed ride home program (47% of employers), and promotional prize drawings for ridesharers (65% of employers). The average number of incentives used by employers was 7.6 in year one, and had increased to 9.6 in year two of the program. Sites with lower starting values of AVR offered more incentives than sites having higher vehicle

---

[4]The effects of Regulation XV on ridesharing behavior are more fully presented in: Genevieve Giuliano, Keith Hwang, and Martin Wachs, "Mandatory Trip Reduction in Southern California: First Year Results," Los Angeles: University of Southern California and University of California, Los Angeles, January 1992.

occupancies, and it was found that AVR increase was significantly related to the number of incentives offered at a work site.

Methodology

The results reported here are based on a telephone survey of ETCs within the South Coast Air Quality Management District. The sample of ETCs was drawn from a larger data base we had collected as part of an ongoing study of the effectiveness of Regulation XV. The ETC sample was selected so as to be as representative as possible with respect to the larger data base. Prospective respondents were contacted and requested by letter to participate in the survey. A follow-up telephone call was made to arrange a time for the interview. The telephone interviews were conducted during the summer and fall of 1991. Because of the high interest in Regulation XV, the esprit de corps among the ETCs, and a careful explanation of the purposes of our study, we managed to obtain an extremely high response rate: of 241 ETCs contacted 182 (or 76%), completed surveys. The results were coded and tabulated, and the most interesting findings are summarized in the remainder of this paper.

The respondents are not a random sample of all ETCs. Because they were drawn from a larger sample of work sites which was being used in our ongoing evaluation of the regulation, they were likely to be work sites which had completed their first plans under the regulation during the first year of the program. And, since the SCAQMD first required plans from the work sites having the largest number of employees, it is clear that our sample over-represents work sites with larger numbers of employees (500 or more), and under-samples work sites at which the work force is small (between 100 and 500 employees). The number of workers employed at the work sites included in our sample ranged from a low of 80 to a high of well over 16,000.[5] The median size of the work force at employment sites included in this study was 556.

[5]Regulation XV applies only to work sites having 100 or more employees. A responding work site may have had 100 employees at the initiation of its participation in the program, but may have lost employees by the time our survey was conducted.

Findings

The results of the analysis of the survey data are presented in this section. The findings which are presented deal with the tenure of service of current ETCs and how they came to their current positions; the demographic characteristics of the ETCS in our sample, an analysis of the resources reportedly committed to the Regulation XV programs of the respondents' employment sites; a description of the duties and experiences of the respondent ETCs, their reactions regarding the adequacy of the training they received to be ETCs, and respondents' ratings of the overall performance of Regulation XV.

1) Tenure of Service as ETC:

Evidence of the newness of the job title of ETC is found in the fact that some 58% of the survey respondents indicated that they were the first ETCs at their employment sites, while 42% stated that they had been preceded by one or at most two prior ETCs. Only 4% of the respondents indicated that their work sites had ever had more than two prior ETCs in addition to themselves. Further evidence of the novelty of this position is found in the length of time most ETCs had been in their positions. Some 28% of all respondents had been ETCs for less than one year, another 27% had served between one and two years, and 35% between two and three years. Only ten percent had been ETCs for more than three years (See Table 1). And, since our sample is made up of larger firms and those who have already been implementing their Regulation XV plans, most ETCs in Southern California have probably been in their positions for less time than those in our sample.

[TABLE 1 ABOUT HERE]

Most ETCs had not sought out their assignments. Some 89% of all respondents were previously employed by their current employers before they became ETCs. Just over two-thirds of all the respondents indicated that the role of ETC had been assigned to them by management, while another 18% were invited by management to become ETCs and willingly did so. Only 13% had voluntarily chosen to become ETCs and had applied for such a position by seeking transfers within their organizations or applying for their positions from outside their current organizations.

Perhaps another indication of the newness of the ETC job title is the fact that ETCs were found to be affiliated with many different departments or groups within their employment sites. As shown in Table 2, just over half (51%) of all ETCs were housed in their employers' "human resources" or "personnel" groups. Eleven percent were classified as being associated with groups having the title "administration," and six percent were in departments or divisions of "transportation." Another 32% were scattered in a variety of "other" organizational units.

[TABLE 2 ABOUT HERE]

2) Demographic Characteristics of the ETCs:

Table 3 summarizes the demographic characteristics of our sample of ETCs. A large majority of ETCs were women, with female respondents constituting 59% of the respondents and males comprising 41%. Similarly, a large majority were caucasian, with 72% of the respondents fitting that description. The second most common ethnicity was Chicano and Latino, which together constituted 13% of the ETC population, while 9% classified themselves as African Americans or Blacks, and 6% were Asian Americans. The ages of the ETCs ranged from a low of 19 to a high of 63 years, with a mean and a median of about 40 years of age. About 8% of the responding ETCs indicated that they had no college education. Another 29% had attended some college but had not graduated, while 43% were college graduates and 20% had done post graduate work.

[TABLE 3 ABOUT HERE]

3) Resources Committed to Regulation XV:

The vast majority of work sites are served by ETCs who are full-time employees of their organizations. Fully 94% of the ETCs reported that they work 40 or more hours per week for their employers. Despite the predominance of full-time employees among the ETCs, most devoted only a portion of their time to their ETC duties, while devoting part of their time to other responsibilities. As shown in Table 4, some 79% of the respondents reported that there were no employees at their work sites working full-time on Regulation XV programs; while 15% of the work sites had exactly one full-time ETC and only 6% reported having more than one full-time employee working on Regulation XV.

In addition to discovering that a full-time assignment as an ETC is rare, we also discovered that most work sites employ only one part-time ETC. Fully two-thirds (68%) of the respondents indicated that their work sites had only a single person devoting part of his or her time to working on Regulation XV, while at another 24% of the work sites there were between two and three employees devoting part of their time to implementing the regulation. Just nine percent of the work sites had four or more workers devoting part of their time to Regulation XV work (Table 4). As expected there was a positive association between the number of workers at an employment site and the number of people employed on its Regulation XV program.

Among the respondents themselves, only 19% of the ETCs were found to be spending at least half of their time on tasks related to Regulation XV; while fully 43% stated that they were devoting at most ten percent of their working time to the regulation. The median percentage of time spent by the respondents carrying out their ETC duties was found to be only 15% of their working time. Clearly, most employers are devoting few of their personnel resources to the implementation of Regulation XV. This finding is especially significant in that we are quite certain that our sample over-represents the work sites having larger numbers of employees. In all likelihood, work sites having fewer employees devote even fewer personnel to the implementation of the regulation.

It is difficult to determine how much money is being spent on the implementation of Regulation XV. Fully 41% of all ETCs in our sample reported that their work sites did not have separate budgetary accounting for their expenditures on programs related to the regulation; their budgets were distributed among several departments or their time spent on a variety of activities was not clearly associated with one or another program category. Of those who were able to roughly estimate their employer's expenditures on Regulation XV, Table 4 shows that one third (33%) estimated the total expenditure to be less than ten thousand dollars per year; while another 42% of the employers were spending between $10,000 and $50,000 per year on programs related to the regulation. The median expenditure on Regulation XV programs was just $7,500 annually. Not surprisingly, there was a positive but weak association between expenditures on the Regulation XV program and the size of the work site.

[TABLE 4 ABOUT HERE]

Despite the fact that work sites were devoting few part-time personnel and few financial resources to the implementation of the regulation, the ETCs generally report that they found management supportive of the program. Some 76% of all ETCs in the sample found management to be supportive or very supportive of the regulation, and only 7% of the ETCs thought management was unsupportive or very unsupportive. The remaining 17 percent described the attitudes of management as being "mixed." Similarly, 72% of the respondents felt that the budget in support of Regulation XV was "sufficient or "more than sufficient," while only 13% felt the budget was insufficient or very insufficient, and 15% responded with mixed reactions.

4) Duties and Experiences of the ETCs:

Clearly, preparing the Regulation XV plan for the employment site constitutes one of the primary duties of each ETC. Fully 89% of the respondents indicated that the plans required for their work sites had been prepared by the current or a previous ETC; while only 5% of the respondents indicated that another employee had prepared the plan; and in 5% of the cases the plans had been prepared by others, including consultants (see Table 5). While the ETCs were in most cases primarily responsible for preparing the plans, Table 5 indicates that 46% of them sought assistance from others during the plan preparation process. Among those who did seek assistance in assembling the plans, the most common source of assistance was a ridesharing agency, such as Commuter Computer or the Orange County Transit District, which had been contacted by 26% of the respondents who had sought help from others. The second most common source of assistance was the SCAQMD itself, which had been approached by 18% of the ETCs who had sought assistance. In addition, some ETCs had sought help from other employees, from their direct supervisors, and from management. Only 5% of the respondents who had sought assistance from others had turned to consultants, and only 4% had turned to transportation management organizations (TMOs) for assistance.

[TABLE 5 ABOUT HERE]

While plan preparation is clearly a major responsibility of the ETCs, plan implementation is an even greater responsibility. Fully 94% of the respondents indicated that they were responsible for implementing the plans. Despite the fact that nearly every

ETC indicated that he or she was responsible for implementing the plan, the ETCs did not always have clear responsibility for deciding which of the incentives in their plans should be implemented. As shown in Table 5, only 39% of the ETCs indicated that they alone had decided which incentives to implement; while in another 31% of the cases the decision was made jointly between the ETC and management. In another 21% of the cases the decision was made by management, and at 9% of the employment sites the decision was made by some form of "ridesharing committee."

While the vast majority of ETCs had major responsibility for implementing the plans, they were not able to spend a majority of their time on this activity. On average, ETCs reported that they spent only 39% of the time which they devoted to Regulation XV work on implementing Regulation XV incentives; while on average they spent 54% of their Regulation XV time on administration. Since they spent a median of 15% of their total working time on Regulation XV, the fraction of their total time devoted to actually implementing the regulation was in general quite small. Fully 81% of the responding ETCs stated that they spend less than half of their Regulation XV work time on the implementation of incentives; while 41% informed us that they devoted more than half of their Regulation XV work time on administration.

When asked whether or not any unforeseen difficulties were encountered in their efforts to implement the incentives which were part of their plans, 47% reported that they had encountered such difficulties. Among the most common difficulties were union opposition to the implementation of certain incentives, especially those involving changes in work hours; actual expenses which unexpectedly exceeded budgets or estimated costs; lack of management support for the programs and lack of interest in the programs on the part of the employees. Also mentioned as difficulties encountered by the ETCs were insurance and liability worries among those committing their vehicles to carpools, and the difficulty of enforcing an honor system where preferential or reserved parking is set aside for ridesharers.

5) Adequacy of Training:

To be certified, each ETC must participate in an initial three-day training session and attend a one-day "update" training session each year. Some six different organizations offer training programs, and they are all overseen by the SCAQMD. Since substantial

costs in time and money are involved in obtaining training, it is important to determine whether the training is considered effective by those who are the clients. We found, as shown in Table 6, that 72% of the respondents regarded the initial training to have been adequate or more than adequate, while 14% considered it inadequate or very inadequate, and another 14% responded by saying that their evaluation was mixed. Not all the ETCs in our sample had been certified sufficiently long that they were required to take at least one annual update training. Among the 82% of respondents who had experienced the one-day update training, some 58% found the training to be either very beneficial or beneficial, while 15% stated that it was either not beneficial or not at all beneficial, and 27% offered mixed responses.

[TABLE 6 ABOUT HERE]

It is clear from earlier answers to questions in our survey, that many of the ETCs were assigned to their jobs, and consequently they had to attend the training sessions as a result of being assigned to do so. Educators realize that captive audiences are often the most difficult classes to satisfy, and the responses regarding the adequacy of the training may reflect the reluctance of many of the participants to be enrolled. For whatever reason, however, it would appear from these responses that there is room for improvement in the annual update training, which was found adequate or more than adequate by only a bear majority of the respondents.

6) Respondents Ratings of Overall performance of Regulation XV:

In an effort to gauge the ETCs attitudes toward Regulation XV in general, several questions were asked of the respondents regarding their overall assessments of performance under the regulation. The responses to these questions are summarized in Table 7. When asked to rate the overall effectiveness of their organization in implementing Regulation XV, nearly two-thirds (64%) of the ETCs stated that they considered their organizations either effective or very effective, while only 9% rated their organizations as ineffective or very ineffective, and some 26% considered the performance of their organizations to be mixed. We cross-tabulated actual change in AVR experienced by the respondents' work sites in one year of the program against the ETCs' ratings of the overall effectiveness of their organizations, and found no statistically significant association.

Thus, we cannot conclude that the ratings of success by the ETCs are based upon their measurable accomplishments at meeting the requirements of the regulation.

The respondents were far less supportive of Regulation XV and of the performance of the SCAQMD than they were of their own organizations. When asked whether they found Regulation XV to be an effective method of encouraging alternative transportation methods in Southern California, only a small majority rated the regulation as effective. Some 56% either agreed or agreed strongly that the regulation was effective, 13% disagreed or disagreed strongly, and 30% stated that their reactions were mixed. And, when asked whether they felt that the SCAQMD was doing all it can to help work sites understand and comply with the regulation's requirements, the ETCs were decidedly critical. Only 36% agreed or agreed strongly that the SCAQMD was doing all it could, while 31% disagreed or disagreed strongly, and 33% said their reactions were mixed. Taken together, these responses show substantial skepticism among those most responsible for implementing the regulation.

When asked how good a criterion of effectiveness they consider AVR to be, some 49% of the respondents stated that they found it to be a good or very good criterion, while 17% found it poor or very poor, and 35% found it to be mixed. When asked whether they would be able to achieve the required target AVR specified by the SCAQMD this year, a clear majority of 58% of the ETCs said no, while only 29% thought they could meet their assigned targets. Another 13% were unsure of whether or not they would meet their targets.

[TABLE 7 ABOUT HERE]

Conclusion

This paper provides an initial look at employee transportation coordinators, a professional group which has been gaining in importance in Southern California as a result of the adoption and implementation of Regulation XV. While more research is necessary to arrive at a complete understanding of the background and role of the ETC, the study outlined here provided an initial picture of the complexity which surrounds Regulation XV and those who are centrally involved in its implementation.

While there is a great deal of variation within the sample studied, ETCs are most likely to be white, female, somewhere around forty years of age and at mid-career levels.

Very importantly, the majority of ETCs have been assigned to their positions rather than having applied for them or sought them out. ETCs are overwhelmingly likely to be full-time employees of their organizations, but they are in most instances spending only part of their time carrying out their duties as an ETC, and many are spending the majority of their time carrying out other responsibilities. Furthermore, most ETCs are the only employees within their organizations responsible for the implementation of Regulation XV.

In general, ETCs are far more positive about the performance of their own organizations than they are of the South Coast Air Quality Management District or of Regulation XV in the transportation arena. For example, ETCs were generally quite positive when evaluating the extent of management support for Regulation XV and their own organization's budgetary allocations for implementing the regulation, and their organization's overall performance with respect to Regulation XV. They displayed these positive attitudes even though they had been assigned by management to the role of ETCs; despite the fact that most ETCs were working alone and could devote only part of their time to implementing the regulation; and although their employers were allocating relatively few financial resources to Regulation XV. Most importantly, perhaps, the ETCs generally rated their organizations' performance as effective even though they did not expect to achieve the target AVRs required under Regulation XV.

On the other hand, lower levels of effectiveness were ascribed by the ETCs to the SCAQMD itself, which was portrayed by many respondents as doing less than they should in order to assist the ETCs in the implementation of the regulation. The respondents were also less positive about the organizations which trained them to carry out their functions as ETCs than they were about their own organizations and their programs. In addition, the ETCs were not strongly supportive of Regulation XV as a mechanism by which to promote alternatives to the automobile.

Taken as a whole, the patterns in the data probably indicate that Regulation XV is a new program imposed upon an unenthusiastic clientele by a centralized regulatory organization. The regulated community, not surprisingly, appears to be devoting as few financial and personnel resources to the implementation of the program as possible, while retaining a healthy skepticism of the regulating body. The ETCs, despite their training, have not yet come to identify with the program nearly as much as they identify with their own employers. If Regulation XV is to be more effective at changing commuting patterns

than it has been during its first year of implementation, it would appear that deeper commitments of resources and personnel will be required, and for that to occur stronger support for the program among ETCs would seem to be a prerequisite. Perhaps that support can be achieved through more effective training of ETCs and through programs on the part of the SCAQMD to foster greater commitment to air quality and ridesharing on the part of corporate management. If those commitments cannot be nurtured during the coming few years, it may not be possible for Regulation XV in its current form to achieve its intended outcomes.

ACKNOWLEDGMENTS:

The authors gratefully acknowledge the funding for this study which was received from the University of California Transportation Center. We would also like to specifically recognize research assistants Stephen Finnegan, Moira Kenney and Karen Trapenberg, who conducted the telephone interviews of ETCs and coded and analyzed the data which those interviews produced.

TABLE 1. LENGTH OF TIME RESPONDENT HAS BEEN AN ETC

TIME AS AN ETC	% OF RESPONDENTS
0 to 6 months	13
6 months to 1 year	15
1 year to 2 years	27
2 years to 3 years	35
more than 3 years	10

n = 182

TABLE 2. LOCATION OF THE ETC WITHIN THE ORGANIZATION

LOCATION OF THE ETC WITHIN THE ORGANIZATION	% OF RESPONDENTS
Human Resources/Personnel	51
Administration	11
Transportation	6
Technical	1
Other	31

n = 182

TABLE 3. DEMOGRAPHIC DESCRIPTION OF RESPONDENTS

GENDER	
Male	41%
Female	59%
ETHNICITY	
White/Anglo	72%
Chicano/Hispanic	13%
African-American/Black	9%
Asian-American	6%
AGE	
19-30	21%
31-40	33%
41-50	31%
Over 50	16%
EDUCATION	
High School Only	8%
Some College	29%
College Graduate	43%
Post-Graduate	20%

(n = 182)

TABLE 4. RESOURCES DEVOTED TO REGULATION XV PROGRAM

RESOURCE	% OF ORGANIZATIONS
FULL-TIME REGULATION XV WORKERS (n = 182)	
0	79%
1	15%
more than 1	6%
PART-TIME REGULATION XV WORKERS (n = 182)	
0-1	68%
2-3	24%
more than 4	9%
% OF ETCs TIME SPENT ON REGULATION XV (n = 182)	
0-5%	28%
6-10%	15%
11-20%	14%
21-30%	12%
31-40%	6%
41-50%	6%
51-99%	6%
100%	13%
DOLLARS SPENT PER YEAR BY ORGANIZATION ON REGULATION XV (n = 113)	
0-5,000	21%
5,000-10,000	11%
10,000-25,000	20%
25,000-50,000	22%
50,000-100,000	12%
Over 100,000	15%

TABLE 5. RESPONSIBILITIES FOR PREPARATION AND IMPLEMENTATION OF REGULATION XV PLANS

PERSON PREPARING PLAN (n = 181)	
Current ETC	74%
Previous ETC	15%
Another Employee	5%
Consultant	3%
Other	2%
DECIDED ON WHICH INCENTIVES TO IMPLEMENT (n = 179)	
ETC	39%
Management	21%
Management & ETC Jointly	31%
Rideshare Committee	9%
SOUGHT HELP IN PLAN PREPARATION FROM (n = 179)	
Ridesharing Agency	26%
SCAQMD	18%
Other Employees	17%
Immediate Supervisor	11%
Management	10%
ETC at Another Work Site	7%
Consultant	5%
TMO or TMA	4%
Other	2%

TABLE 6. ETC EVALUATIONS OF EFFECTIVENESS OF TRAINING

Quality of Initial Training (n = 178)	
More than adequate	15%
Adequate	57%
Mixed	14%
Inadequate	12%
Very Inadequate	2%
Quality of Update Training (n = 146)	
More than adequate	23%
Adequate	34%
Mixed	27%
Inadequate	6%
Very Inadequate	9%

TABLE 7. RESPONDENTS OVERALL RATINGS OF EFFECTIVENESS

OVERALL EFFECTIVENESS OF ORGANIZATION IN IMPLEMENTING REGULATION XV (n = 180)	
Very Effective	27%
Effective	37%
Mixed	26%
Ineffective	7%
Very Ineffective	2%
REGULATION XV IS AN EFFECTIVE MEASURE (n = 181)	
Agree Strongly	15%
Agree	41%
Mixed	30%
Disagree	9%
Disagree Strongly	4%
SCAQMD IS DOING ALL IT CAN TO HELP? (n = 181)	
Agree Strongly	4%
Agree	32%
Mixed	33%
Disagree	26%
Disagree Strongly	5%
HOW GOOD A CRITERION IS AVR? (n = 180)	
Very Good	11%
Good	38%
Mixed	35%
Poor	16%
Very Poor	1%