

1993 Project Abstract

FOR THE PERIOD ENDING JUNE 30, 1995

JUL 05 1995

This project was supported by Oil Overcharge money (M.L. 93, Ch. 172, Sec. 14, Subd. 4(d))

TITLE:	The Bus, Bike, or CarPool (B-BOP) Challenge
PROGRAM MANAGER:	Sheldon Strom
ORGANIZATION:	Center for Energy and Environment
LEGAL CITATION:	M.L. 93 Ch. 172, Sec. 14, Subd. 4(d)
APPROPRIATION AMOUNT:	\$150,000

STATEMENT OF OBJECTIVES

The objective was to demonstrate and assess the cost-effectiveness of the B-BOP Challenge, an employer-based, trial of service, Transportation Demand Management (TDM) program to determine whether elements of the B-BOP strategy should be incorporated into the programs of the MCTO, Minnesota Rideshare, and other TDM agencies.

RESULTS

CEE demonstrated the viability of the B-BOP Challenge as a strategy to promote TDM programs. Fourteen companies with a total of 5,140 employees participated. Of the 1,294 employees who pledged to participate in the B-BOP Challenge, 729 submitted documentation attesting to their alternative mode use during the B-BOP Challenge. Participants increased their use of alternative commuting modes by 1.22 trips per month, a 10 percent increase. This increase appears modest because frequent users of alternative modes did not substantially increase their use during the B-BOP period. If only the commuters who previously used alternative transportation modes zero to six times per month are considered, the rate of increase is significant -- from 1.72 to 5.18 times per month. Responses from participants indicate that the B-BOP Challenge will convert 7,415 commute trips (equal to the number of commutes of 31 full-time employees per year) from single-occupant vehicles to alternative modes in the year following the program. Companies reporting the most positive responses to the B-BOP Challenge were those located in the suburbs, which had the lowest use of alternative modes before the B-BOP Challenge. Companies reporting the least positive responses were located in the central cities and already had relatively high rates of alternative mode use.

Based on cost estimates to replicate the B-BOP Challenge, the cost of converting one full-time commuter equivalent is \$2,322. This result suggests that future programs should be targeted to companies where alternative mode use would relieve serious traffic and parking problems or contribute immediately to other company objectives enough to justify the cost.

PROJECT RESULTS USE AND DISSEMINATION

The results of the B-BOP Challenge have been presented at the annual meeting of the Minnesota Coalition of Bicyclists, the Minnesota Pollution Prevention Conference, to the Minneapolis/Downtown Council Transportation Management Organization, to the marketing staff of the MCTO and Minnesota Rideshare, and to the Metropolitan Council's Transportation Demand Management Task Force. A final evaluation report has been distributed to the cooperating agencies and the participating companies. It is also available upon request.

At least two agencies have adopted strategies that were part of the B-BOP Challenge. As part of its 1995 B-BOP promotion, Hennepin County challenged more than 2,500 employers to participate in a one-year competition to encourage alternative transportation mode use by employees. In 1995, Minnesota Rideshare has targeted 15 employers in the metropolitan area to participate in its own B-BOP Challenge using many of the features of CEE's program including pledge logs, prizes, and recognition events.

Date of Report: July 1, 1995

JUL 05 1995

LCMR Final Report

I. Project Title: E1-9 The Bus, Bike Or carPool (B-BOP) Challenge

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A. Legal Citation: M.L. 93 Chpt. 172, Sect. 14, Subd. 4(d)

Total Biennial LCMR Budget: \$150,000
Balance: \$0

Appropriation Language: This appropriation is from the oil overcharge money to the commissioner of administration for a contract with the Center for Energy and Urban Environment to reduce energy use by the delivery of an employer-based program that cost-effectively reduces the use of single occupant vehicles by commuters who pledge to B-BOP or telecommute regularly during the summer.

B. LMIC Compatible Data Language: Not applicable.

C. Status of Match Requirement: Not applicable.

II. Narrative: The goal of this project is to design and test various employer-based transportation demand management (TDM) projects that cost-effectively reduce the use of single-occupant vehicles by employees. The replicable TDM projects will reduce gasoline consumption, commuting costs, traffic congestion and environmental degradation.

Fifteen motivated employers (with about 6000 total employees) will be selected. Employer locations will be in concentrated employment nodes within the seven-county metropolitan area (where about 51 percent of the state's population resides) where traffic congestion is most severe.

Current commuting behavior of employees will be documented. Alternative transportation promotion/incentive packages will be developed with employers, employee representatives and cooperating agencies. All employees will be offered incentive packages designed for their workplaces and asked to pledge to B-BOP or telecommute to work regularly during the summer (starting on the date of the Minnesota Department of Transportation's "B-BOP Day"). Employee commuting behavior will be monitored, and the cost/effectiveness of incentive packages and promotion/education devices will be evaluated. The program models and evaluation will guide cooperating agencies' and private employers' future efforts to promote commuting alternatives.

III. Statement of Objectives:

- Select motivated employers for participation.
- Survey commuter behavior, and establish base data.
- Develop incentive packages and promotion/education devices.
- Implement the B-BOP Challenge.
- Document program results and evaluate program.

IV. Objectives:

A. Title of Objective: Select motivated employers for participation.

A.1. Narrative: Fifteen employers motivated to participate in the B-BOP Challenge and to maintain an employer-based transportation demand management program will be selected. To the extent possible, the employers will be representative of all metropolitan employers in terms of location (downtown, first-ring suburb and outer suburb), size (under 50 to over 500 employees), organization (public, non-profit and for-profit) and function (service, production, retail, etc.).

A.2. Procedures: The cooperating agencies will be consulted by CEE staff to determine an appropriate mix of employers and to assemble a list of prospective employers for participation. CEE staff will assemble prioritized lists by attributes (described in narrative above). CEE staff will send a letter and informational piece promoting participation in the B-BOP Challenge to the CEO of each firm in priority order. The CEOs will be telephoned to determine their interest.

Interested CEOs or other appropriate company officers will then be interviewed by CEE staff to explain the B-BOP Challenge and to secure verbal commitments to participate. Written commitments from the most promising employers will also be secured. As employers decline to participate, others on the priority lists will be contacted until a sufficient number of employers is committed.

A.3. Budget:

- Amount budgeted: \$3,800
- Balance: \$0

A.4. Timeline:

	1993	1994	1995
	3 4	1 2 3 4	1 2
Meet with cooperating agencies	*		
Assemble prioritized lists	*		
Write letters and informational piece	*		
Send letters and informational piece	*	*	
Interview CEOs		*	
Secure written commitments		*	

A.5. Status:

Monthly meetings of the marketing staff of the Metropolitan Council Transit Operations (MCTO) and Minnesota Rideshare, which included representatives from all agencies involved in transportation demand management, served as an excellent forum for CEE to update and coordinate with the cooperating agencies on the B-BOP Challenge. At these meetings, CEE and the cooperating agencies addressed issues related to project goals, project design, roles and responsibilities. CEE learned that regularly scheduled interagency meetings are essential for keeping multiple agencies engaged in a project such as the B-BOP Challenge and to ensure that the project yields valuable outcomes for all cooperating agencies.

In total, about sixty prospective companies were screened, thirty were recruited, and fourteen companies representing 6,097 employees agreed to participate. (This number of employees includes employers at remote locations that achieved zero participation in the

program and were therefore excluded from the analyses of participation and impact performed in subsequent tasks of this project. The analysis is based on a total of 5,140 participants) Achieving our goals for geographic, company size and sector representation proved to be somewhat challenging because there was always a risk of overrepresentation if all solicited companies of a particular type agreed to participate.

The recruitment process relied a great deal on previous connections; few entirely new contacts led to company participation. Companies wished to participate for a variety of reasons. Many participated simply because the owner or another company officer thought the program was a good idea, but they had no specific objectives to accomplish. Others were somewhat reluctant to participate, but they were persuaded by project staff or internal employees.

3M was unique among the participating companies in that it was the only company with a mature transportation demand management program, and the transportation service staff had two specific objectives to accomplish by participating in the B-BOP Challenge — they wanted to bolster participation in the 3M vanpool program and relieve a parking shortage at the 3M complex. While the 3M transportation services staff was generally satisfied with the B-BOP Challenge, the program design was better suited for companies that are just introducing TDM than for companies that already had TDM services in place.

The B-BOP Challenge strategy is certainly viable in terms of there being enough willing employer participants. Recruiting companies to participate, however, was more time-consuming than expected because commitments from each company usually required numerous contacts with different individuals. Recruiting companies to participate also required a broad base of contacts because “cold calls” were much less successful than using existing relationships with company employees.

Each company participating in the B-BOP Challenge assigned a B-BOP Challenge Coordinator to serve as the primary contact for CEE staff and to coordinate all activities and communications with participants. In future employer-based TDM programs that require the assignment of employees to coordinate activities and communication, it is recommended that project staff of the sponsoring organization be involved in the selection of the internal coordinators to ensure that they are motivated and have time available to work on the program. In addition, more time should be devoted to training the internal coordinators, and at least one meeting of all coordinators from the participating companies should be held.

A.6. Benefits: Selecting motivated employers for participation will ensure that the B-BOP Challenge will be supported by management and improve the likelihood that successful TDM programs will be designed, implemented and maintained beyond the term of this project. Selecting a representative range of employers will allow testing of different promotion/incentive packages in different settings, which will provide comparative information about employee behavior and result in program models with greater replication value.

B. Title of Objective: Survey commuter behavior, and establish base data.

B.1. Narrative: A survey of individual commuter behavior will be conducted, and a data base will be created for each participating employer to document pre-B-BOP commuting behaviors and attitudes.

B.2. Procedures: CEE staff will design a survey of individual commuter behavior to be administered to employees of the selected employers. The survey instrument will solicit information about employees' commuting modes, mileage, routes and use of personal automobiles and other transportation modes during the work day. In addition, the survey instrument will probe attitudes about commuting, perceived advantages and disadvantages of alternative commuting methods and what measures would induce employees to choose alternatives to single-occupant vehicles.

The survey design will be reviewed by the cooperating agencies and pretested. The survey will then be conducted by CEE staff, and a data base will be created for each participating employer.

B.3. Budget:

a. Amount budgeted: \$10,000

b. Balance: \$0

B.4. Timeline:

	1993		1994		1995	
	3	4	1	2	3	4
Design survey	*	*				
Review by cooperating agencies		*				
Survey pretest		*				
Conduct survey			*			
Create data base			*			

B.5. Status:

A pre-participation survey of all employees at the Pacesetter Companies was conducted to develop baseline information. There were two primary purposes for this information: first, to inform decisions about incentives and services to offer as part of the B-BOP Challenge; and second, to compare against data obtained on completed pledge cards and logs and in the post-participation survey so that accurate conclusions about changes in alternative mode use could be derived with confidence.

The participating employers' project coordinators assisted CEE with administration of the survey. All employees were asked to complete the survey to establish total population baseline data. Approximately 51 percent of all employees turned in completed survey forms, which is a successful response rate for a survey of this type. This success is attributable, in large part, to the support and assistance of the employers.

The results of the pre-participation survey indicated that the Pacesetter Companies' employees were not significantly different from commuter groups surveyed for other purposes in their attitudes about commuting and their perceptions about alternative transportation modes. However, it was found that they use alternative modes slightly more than the population as a whole. (This may be attributable to a response bias, because the survey questionnaire was distributed with materials announcing the B-BOP Challenge.) Employees expressed a fairly low inclination to choose alternative commuting modes in response to specific incentives, with the exceptions of financial incentives from employers and a guaranteed ride home offer. The survey results did not illuminate significant differences among the employee groups at the Pacesetter Companies regarding the incentives to which they would respond most positively. Thus, the results did not really affect decisions regarding incentives and services to offer.

Conducting a pre-participation survey created logistical problems because it had to be conducted in a very narrow time frame, and a pre-participation survey of all employees is

not recommended in a replication of the B-BOP Challenge. Existing data on commuter behavior and attitudes can be obtained from other survey work that has been done by various agencies in the Twin Cities area, and focus groups could be used more effectively to generate input on incentives and services to offer.

B.6. Benefits: Survey results will establish the base commuting behavior and attitudes data (before introduction of the promotion/incentive packages). Success of the B-BOP Challenge and individual incentive and promotion components will be assessed by comparing behavior and attitudes after implementation to the pre-implementation data gathered in this survey. In addition, this survey will assist the project team, employers, employee representatives and cooperating agencies to develop promotion/incentive packages that are highly responsive to employees' needs and desires.

C. Title of Objective: Develop incentive packages and promotion/education devices.

C.1. Narrative: Incentive packages and promotion/education devices (brochures, single-theme packets, posters, etc.) will be designed and produced for the B-BOP Challenge.

C.2. Procedures: Based on the survey results and other information specific to each employment setting, CEE staff, with assistance from employers, employee representatives and cooperating agencies, will develop a B-BOP Challenge incentive package and promotion/education devices that are well suited to each employee groups' needs and desires. Meetings will be held at employers' locations with the employers, employee representatives and the cooperating agencies. Existing incentive packages and promotion/education materials used by the cooperating agencies will be reviewed for suitability. A wide variety of incentives will be developed (including repackaged incentives that are already available through the cooperating agencies, new incentives that the cooperating agencies will offer on a pilot basis for this project, and incentives that the employer will offer, such as bicycle lockers, bus pass discounts, preferential parking for carpool vehicles, performance awards, etc.).

CEE staff will assess the short and long-term benefits of each incentive to employers, employees and the cooperating agencies to determine appropriate cost sharing and level of public subsidy. Cost sharing agreements will be worked out with the employers, employees and cooperating agencies.

The incentives packages and promotion/education materials will be rough designed by CEE staff. CEE will contract with a full-service print shop to do final design and production of the materials.

C.3. Budget:

- a. Amount budgeted: \$15,000
- b. Balance: \$0

C.4. Timeline:

	1993		1994				1995	
	3	4	1	2	3	4	1	2
Conduct meetings			*					
Review existing incentives and materials			*					
Develop new incentives and materials			*	*				
Assess costs/benefits			*	*				
Agree on cost sharing			*	*				
Rough design			*	*				
Final design and production							*	

C.5. Status:

CEE staff worked with staff from the MCTO, Minnesota Rideshare, and the Pacesetter Companies to review existing incentives and services and to develop a package of inducements to offer participants in the B-BOP Challenge. It was found in the pre-participation survey that the inducements that employees thought would most effectively induce alternative commuting mode use were direct financial incentives from their employers and a guaranteed ride home program. The incentives and services offered in the B-BOP Challenge were to be responsive to the preferences of the employees, but they also had to be affordable and practical so that the B-BOP Challenge tested a package that could be replicated in future efforts. Thus, arranging subsidized or unsubsidized financial incentives from employers was not strongly considered, but instituting a guaranteed ride home program was.

The cooperating agencies offered to provide various incentives and services to induce employees to sign up for the B-BOP Challenge. The MTCO and Minnesota Rideshare agreed to provide the same incentives and services that they offer at any company where they are making an effort to increase the use of their programs. The Minnesota Coalition of Bicyclists arranged to staff a booth and obtain discount coupons from local bike shops. CEE purchased bicycle route maps from the University of Minnesota, which were designed and produced under an LCMR grant. In addition, CEE designed and produced employer site-specific maps for locations that were not in the geographic area of the University of Minnesota map.

The results of the pre-participation survey indicated that the Pacesetter Company employees would highly value a Guaranteed Ride Home service. CEE reviewed several Guaranteed Ride Home Program designs, but found that none provided sufficient financial safeguards while also minimizing administrative costs and providing reasonable convenience to participants. For this reason, CEE designed its own Guaranteed Ride Home program in consultation with some of the participating employers. Only two participants used the Guaranteed Ride Home service during the entire B-BOP Challenge.

In response to the concern of employers that this program would create an extra workload for managers and coordinators, CEE set up a full-time "B-BOP Help Line." A single telephone line was dedicated to this purpose, and staff were trained to respond to questions and problems. (The cost of the Help Line was low because CEE maintains a four-line customer assistance service for other programs.) To set up a Help-Line that is staffed during all business hours where such a service is not already established would be costly. Only 38 calls were received on the Help Line, and almost all of these calls were inquiries about turning in pledge logs, the final celebrations and other B-BOP Challenge matters.

The Pacesetter Companies were also encouraged to offer incentives or special transportation services during the B-BOP Challenge. It was found that employers were reluctant to offer incentives and services during a four-month trial period because they were concerned that employees would perceive these as benefits that should be continued permanently. Thus, the Pacesetter Companies preferred to offer one-time-only contributions to the B-BOP Challenge. The Pacesetter Companies most often contributed to the Transportation Fairs by providing food and refreshments.

C.6. Benefits: The B-BOP Challenge incentives will be designed to directly meet the needs and desires of each employee group (thus maximizing the potential value to participating employees, while minimizing the public and employer cost), and total cost and cost sharing for the incentives will be justified based on estimates of employee participation and benefits of employee participation to the employer, employees and cooperating agencies. This approach will maximize the cost-effectiveness of the incentive packages from each perspective and ensure that the ratio of public subsidy to private costs is appropriate.

The B-BOP Challenge promotion/education materials, which will be professionally designed and produced, will provide attractive, effective single-theme materials to the employees participating in the B-BOP Challenge, and the designs may be used in future alternative commuting campaigns of the cooperating agencies.

D. Title of Objective: Implement the B-BOP Challenge.

D.1. Narrative: The B-BOP Challenge will be implemented on the date of the MNDOT's "B-BOP Day" in May, 1994 at fifteen employers' workplaces. The B-BOP Challenge will last three months.

D.2. Procedures: Internal "B-BOP Challenge Team Leaders" at each workplace will be recruited and trained by CEE staff. They will be given informational materials on the B-BOP Challenge prior to MNDOT's B-BOP Day; and they will coordinate the effort to encourage all employees to "B-BOP to Work" on B-BOP Day in company memoranda, company newsletters and other communications. At work on B-BOP Day, employees will participate in B-BOP Challenge events that will be conducted by CEE staff, cooperating agencies and the B-BOP Challenge Team Leaders. Promotional themes and materials for the B-BOP Challenge will be unveiled, company-wide goals will be announced, and packets containing educational materials, incentive package descriptions and pledge cards will be distributed to all employees. Employees will attend workshops conducted by CEE staff and B-BOP Team Leaders, and they will be asked to sign up for various incentive programs and to pledge to bus, bicycle, carpool or telecommute every day, once per week or twice per month during the summer months.

Employees will maintain logs of their commuting activity throughout the summer, and employee participation will be monitored by CEE staff and B-BOP Team Leaders by reviewing employee commuting logs. CEE staff and representatives of the cooperating agencies will be available to employees experiencing difficulties or who have questions. Accomplishments and new information will be reported in company newsletters and other appropriate communications.

D.3. Budget:

- a. Amount budgeted: \$84,500
- b. Balance: \$0

D.4. Timeline:

	1993		1994		1995	
	3	4	1	2	3	4
Train Team Leaders			*	*		
Prepare B-BOP Day events				*		
Pre-B-BOP Day publicity				*		
B-BOP Day Events/employees pledge				*		
Employees maintain logs				*	*	
Monitor commuting				*	*	
Attend to problems, questions				*	*	
Report accomplishments				*	*	

D.5. Status:

High-quality promotional materials are essential to the success of an effort such as the B-BOP Challenge -- the materials must stand out from all of the other materials employees are exposed to on a daily basis in their work environment. CEE economized on the design of these materials by assigning much of the work to in-house graphics staff and experienced writers of promotional materials. Professional designers were only hired to do some of the more advanced design and layout work. Nevertheless, the contracted services for design and production of all promotional materials cost about \$11,000. (While design costs would not be incurred again, production costs would be.)

The high-quality promotional materials were well received by the B-BOP Challenge Coordinators and employees. They conveyed professionalism and effectively motivated employees to participate. Similar materials should be used in future programs, but design costs could be minimized by borrowing designs from other programs.

The first promotional effort to excite interest among employees occurred with the distribution of the pre-participation survey. In addition to the survey questionnaire, every employee received a letter on company letterhead, signed by the CEO or an appropriate company officer, encouraging completion of the survey and participation in the B-BOP Challenge. At about the same time, B-BOP Challenge posters were put up in common areas of each Pacesetter Company. A second mailing was made to all employees shortly after the completed surveys were due. This mailing contained a thank you for participating in the survey, a B-BOP Challenge brochure, and an announcement of the time, place and agenda for the Transportation Fair.

For Pacesetter Companies that had company newsletters, project staff helped the B-BOP Challenge Coordinators draft articles or announcements about the B-BOP Challenge and the upcoming Transportation Fairs. In addition, the B-BOP Challenge Coordinators were asked to announce the Transportation Fairs at staff meetings, use company e-mail systems and other means to encourage attendance at the Transportation Fairs and participation in the B-BOP Challenge.

CEE staff also worked with the *Skyway News* to publish an article about the B-BOP Challenge during the time when the Transportation Fairs were held. This article had two purposes: first, to provide early public recognition to the Pacesetter Companies; second, to inform employees of about the B-BOP Challenge and encourage them to participate.

Mailing directly to all employees was an effective method of reaching the targeted audience. (The survey response rate of 51.5 percent indicates that employees review and act on the mail they receive at work.) Based on anecdotal evidence, the personalized letter from CEOs had a significant impact.

CEE may have relied too heavily on the direct mailings and should have done a better job of orchestrating other efforts to reach employees. Alternatives to direct mailings include forming volunteer committees at each Pacesetter Company and directing the efforts of volunteers to promote attendance at the Transportation Fairs and participation in the B-BOP Challenge. Another option that would have been effective but more labor intensive would have been to meet with all managers and supervisors in each Pacesetter Company to solicit their assistance in encouraging employees to attend the Transportation Fairs.

Over a period of less than four weeks (May 3 to May 26), CEE and the cooperating agencies conducted 21 Transportation Fairs. (More than one fair was held for the largest participating companies and those with more than one locations.) The Transportation Fairs were labor intensive and logistically difficult — scheduling and conducting fairs in twenty-one locations in twenty-four days is no small task — but they proved to be highly effective. More than 85 percent of the participant pledges were obtained at the Transportation Fairs, and the employees were given easy access to information about alternative commuting modes. The Transportation Fairs were also festive and established the B-BOP Challenge as a goal-oriented campaign. Thus, conducting fairs was a highly efficient way to inform people about alternative transportation, generate interest in the B-BOP Challenge, and collect pledges.

CEE supported the B-BOP Challenge participants as they fulfilled their pledges to use alternative transportation modes by offering the B-BOP Answer Line, maintaining monthly contact with the B-BOP Challenge Coordinators, conducting telephone interviews with randomly selected participants, and mailing motivational announcements to all participants.

Two final celebrations for all B-BOP Challenge participants who completed their pledges were planned and held. The final events were held at Como Park and at Minnehaha Park. Guest speakers included the City of St. Paul Police Chief William Finney and the *Star Tribune* columnist C.J. Food and refreshments were provided; activities with transportation themes were offered; and prizes were awarded to the companies that achieved the highest levels of participation and improved commuting practices. While the response to the final events seemed highly positive among those who participated, the attendance was fairly low. Project staff attributes the low attendance to the events being held on Saturdays rather than during work days. Participating employers were not inclined to allow their employees to take time off work for a final event, however.

Advertisements were designed to publicly congratulate the participating "Pacesetter Companies" and their employees. The full-page advertisements were published in the *Skyway News*. Such public recognition is essential to induce employers to participate in such programs, and advertising in public media has a positive spill-over effect on marketing efforts of the MCTO and Minnesota Rideshare.

D.6. Benefits: The utility of MNDOT's highly publicized B-BOP Day is increased as it is used to kick off the B-BOP Challenge and provides its key theme. Low cost and high employee participation are achieved by employing internal B-BOP Team Leaders and by using existing communication devices such as MNDOT's B-BOP promotional literature and company newsletters. Establishing company-wide goals and asking employees to pledge to change their commuting behavior for only a short period of time have proven to effectively alter commuting patterns permanently as employees internalize the goals, learn how to use alternative transportation modes conveniently, and experience reduced costs and other benefits. The goal for the B-BOP Challenge will be to increase the use of alternative transportation by all company employees by 30 percent during the three-

month B-BOP Challenge and by at least 20 percent thereafter. It is also expected that all of the participating employers will maintain some form of transportation demand management program after the B-BOP Challenge is completed.

In addition to the immediate benefits described above, the B-BOP Challenge will test the popularity and cost-effectiveness of various employer-based TDM programs which may be promoted to other employers for replication. The cooperating agencies will also have an opportunity to test-market new promotional devices and incentives.

E. Title of Objective: Document program results and evaluate program.

E.1. Narrative: Employee participation in all incentive programs, commuting behavior and attitudes, and program cost will be documented, cost-effectiveness will be evaluated, and each employer's program will be described and critiqued.

E.2. Procedures: The employee commuting logs of all participating employees will be collected by CEE staff. CEE staff will conduct a final survey of employees to gather post-program data on employee commuting behavior and attitudes and to provide direct qualitative feedback to the cooperating agencies on incentives tested in the B-BOP Challenge. CEE will assemble participation statistics and cost information for all incentives implemented as part of the B-BOP Challenge from the responsible agencies and employer offices. CEE will conduct exit interviews with company officials, B-BOP Team Leaders and representatives of the cooperating agencies. CEE staff will produce a report which will present overall project results, case studies for each of the fifteen workplaces, cost-effectiveness analyses of each incentive program tested, and recommendations for future public and private TDM initiatives.

E.3. Budget:

- a. Amount budgeted: \$36,700
- b. Balance: \$0

E.4. Timeline:

	1993		1994		1995	
	3	4	1	2	3	4
Collect employee logs					*	
Design survey				*		
Employee survey				*		
Gather incentive data				*	*	
Exit interviews				*	*	
Produce report				*	*	*

E.5. Status:

CEE demonstrated the viability of the B-BOP Challenge as an effective way to promote Transportation Demand programs. Fourteen companies with 5,140 employees participated in the B-BOP Challenge. Completed pledge logs and/or post-participation surveys were collected from 729 participants. This represents 54.6 percent of the 1,294 employees who initially pledged to participate and 13.25 percent of the total employee populations of the participating employers. It is most probable that many of the employees who initially pledged to participate but failed to return completed pledge logs or survey questionnaires actually did use alternative transportation modes after they pledged to do so. Therefore, the impact analysis probably understates the actual results.

At the conclusion of the B-BOP Challenge, an extensive survey questionnaire was sent to the 1,294 employees who pledged to use alternative transportation modes during the B-BOP Challenge. Survey questionnaires were sent to all employees who pledged to participate regardless of whether they completed their pledges, and 609 questionnaires were completed and returned for a response rate of 47.5 percent. The survey questionnaire was designed by CEE staff with input from the cooperating agencies. A survey research firm, Consumer Research Corporation, was hired to administer the survey, code and enter the results, and produce result summaries. CEE staff then performed detailed analyses.

B-BOP Challenge participants increased their use of alternative commuting modes by 1.22 trips per commuter per month, a 10.0 percent increase. This increase appears modest because the frequent users of alternative modes did not substantially increase their use during the B-BOP period. If only the commuters who previously used alternative modes zero to six times per month are considered, the rate of increase is significant - from 1.72 to 5.18 times per month.

If the estimated persistence rate of 56 percent is sustained, the B-BOP Challenge will have caused 7,415 commute trips to be converted from SOV commutes to alternative mode commutes in the year following the B-BOP Challenge. This is equivalent to the number of commutes of 31 full-time employees per year. This represents 4.2 percent of all commuting trips of the 729 participants and 0.6 percent of the commutes of all employees of the participating companies.

A shortcoming of TDM programs around the country has been a failure to quantify program impacts and to account all costs. As preliminary research was conducted for the B-BOP Challenge, CEE staff attempted to obtain cost-effectiveness measures of other TDM programs to serve as benchmarks for comparison. Unfortunately, none were available. (Only recently did CEE staff find a calculation of the cost-effectiveness of a TDM program. Analysts calculated that the cost to remove one vehicle from commuter traffic in 1992 using Southern California's rideshare program was nearly \$3,000.)

As a first-time demonstration project, the \$150,000 budget for the B-BOP Challenge included program development, promotional material design, survey and evaluation costs which would not have to be incurred again to deliver the B-BOP Challenge to an additional set of companies. The cost to replicate the program would be about \$72,000. Based on this budget estimate, and assuming that employee performance would be the same in future B-BOP Challenges, the cost per full-time commuter equivalent (FTCE) converted to alternative modes is \$2,322. CEE concludes that Transportation Demand Management programs should be well targeted to companies based on the traffic and parking problems that the TDM programs would affect and the benefits that may be realized by participating companies.

Given the cost of TDM programs, much greater efforts should be made in this area to ensure that new programs include the most cost-effective features. Additional efforts should also be made to determine the highest potential employee groups based on demographic characteristics, nature of jobs, commute distances, locations of homes and workplaces, and other factors. Targeting employees who are most likely to convert to alternative transportation modes will improve the impact of any TDM program design.

One of the most important measures of success of the B-BOP Challenge is the extent to which other agencies incorporate successful elements of the B-BOP Challenge in their TDM programs. At least two agencies have adopted strategies that were part of the B-BOP Challenge.

- * As part of its 1995 B-BOP promotion, Hennepin County challenged more than 2,500 employers, including businesses, schools, hospitals, and cities, to participate in a one-year competition encourage increased use of alternative transportation modes by their employees. Participating employees must agree to use an alternative transportation mode at least once per week, and the employer with the highest percentage of employee participation will win the competition.
- * Minnesota Rideshare has adopted the B-BOP Challenge as its primary targeting and promotion program in 1995. Minnesota Rideshare has targeted fifteen employers in the metropolitan area to participate in its own "B-BOP Challenge." Employees are being asked to pledge to "B-BOP" to work up to three times per week between May 19 and September 1. Employees will maintain a log of their commuting activities and turn their logs in to Minnesota Rideshare staff at the end of the period. Recognition events for the participating employers and employees will be held, and prizes for participation will be awarded.

CEE has presented the results of the B-BOP Challenge to the City of Minneapolis/Downtown Council Transportation Management Organization, the marketing staff of the MCTO and Minnesota Rideshare, and to the Metropolitan Council's Transportation Demand Management Task Force, which was formed to assist the Metropolitan Council to develop a TDM vision and work plan. In addition, CEE staff have presented the slide show that was developed for the Transportation Fairs at the annual meeting of the Minnesota Coalition of Bicyclists and at the Minnesota Pollution Prevention Conference.

CEE produced numerous professional-quality promotional and project support items. All of these materials have been made available to the cooperating agencies, participating companies and others. In addition, CEE designed a comprehensive post-participation survey instrument that could be used with minor changes in evaluations of other TDM programs. Written transcripts and slides from the slide show presented at the Transportation Fairs were distributed to the cooperating agencies and to the B-BOP Challenge Coordinators at interested Pacesetter Companies.

A more detailed discussion of the project process, results and recommendations is available in the *B-BOP Challenge Final Report*.

E.6. Benefits: The comprehensive evaluation will provide valuable information to the cooperating agencies, employers and other interested parties about the efficacy of B-BOP Challenge approach, insights into commuter behavior and attitudes, cost-effectiveness data on new incentive programs and useful employer-based TDM models for future replication.

V. Evaluation: The project will be thoroughly evaluated based on goals and criteria discussed in the preceding sections of this work plan. Among the specific indicators of success will be:

- * Employee participation and performance during B-BOP Challenge (and consequent impact on gasoline consumption, commuting costs, traffic congestion and environmental degradation);
- * Intention of employees to continue using alternative commuting modes;
- * Cost-effectiveness and popularity of new incentive programs developed;
- * Intention of cooperating agencies to continue offering new incentive programs test-marketed in B-BOP Challenge;

- * Intention of employers to maintain their TDM programs after the B-BOP Challenge is completed;
- * Future replication of employer-based TDM models by other employers; and
- * Future expansion of MNDOT's B-BOP Day to include summer-long B-BOP Challenge.

VI. Context: The transportation system is approaching a crisis situation. Vehicles (over two per household) and trip-making (over ten per household per day) in the metropolitan area have reached unprecedented levels and continue to increase. Meanwhile, bus ridership has decreased to its lowest level. Traffic congestion in the metropolitan area is expected to increase 35 percent in the next ten years; and, without added capacity, there will be 200 miles of severely congested highways daily by the year 2010. Among the negative consequences posed by these trends are increased commuting costs and time, increased fuel consumption, greater public burden for transportation system maintenance and expansion, and numerous environmental impacts.

This project's B-BOP Challenge is an extension of the Department of Transportation's annual "B-BOP Day." The concept of this project is supported by the Regional Transit Board's 1991 Marketing Study which recommends that marketing "emphasize programs, promotions and campaigns that motivate trial of service." The Metropolitan Council's 1992 Regional Transit Facilities Plan recommends "employer involvement in requiring trip reductions at work sites," and employer and community involvement to encourage use of alternative modes (of commuting)." These recommendations will be implemented with this project.

Cities in four states have mandated employer-based programs aimed at reducing single-occupancy vehicle use. The voluntary employer-based B-BOP Challenge represents an alternative and appropriate forerunner to mandates, which may be seriously considered for the metropolitan area in the near future.

VII. Qualifications:

1. Program Manager

- The Program Manager designed and implemented the first B-BOP Challenge as a summer-long corporate event in 1991. He also assisted in the design of Operation Insulation, which uses workshop marketing techniques to promote energy efficiency improvements in residential structures, and the Metropolitan Airports Commission's aircraft noise insulation program. He will be supported on this project by a professional staff including civil engineers, program evaluators, policy and financial analysts, a marketing director, workshop coordinators, a data base manager, a statistician and a graphics designer.
- The Program Manager is a member of the Metro Transit Leadership Group, founder and chair of the St. Paul Bicycle Advisory Board and member of the Regional Transit Board's Bicycle Advisory Board.

2. Cooperators/Other Investigators

- Minnesota Department of Transportation (MNDOT):
Tom Teisberg, Producer/Director (612) 296-7708

Mr. Teisberg has been employed by MNDOT for six years. He has helped coordinate the organization and promotion of B-BOP Day since 1992 and will continue in this role.

- Regional Transit Board (RTB):

Suzanne Hanson, Public Information Manager (612) 229-2720

Ms. Hanson has been employed by the RTB for four years. She works closely with MNDOT, the Metropolitan Transit Commission and other agencies to develop and deliver public information on a variety of transportation matters, including B-BOP Day.

c. Metropolitan Transit Commission (MTC):

Judy Orchard, Marketing Specialist (612) 349-7532

Ms. Orchard has been employed by the MTC since 1978 and has led the MTC's transportation demand management (TDM) programs since 1985. She recently established a TDM program for the City of Plymouth and 600 Plymouth employers, and she is the MTC's primary contact person with over 800 Minneapolis employers on TDM efforts.

d. Minnesota Coalition of Bicyclists:

Pat McKeown, President (612) 521-5923

Mr. McKeown was recently elected President of the Minnesota Coalition of Bicyclists. Mr. McKeown directs the Minnesota Coalition of Bicyclist's efforts to work with bicycle organizations, municipalities, state agencies and others to develop policies and facilities that promote bicycling as an alternative transportation mode.

VIII. Reporting Requirements:

Semiannual status reports will be submitted not later than Jan. 1, 1994, July 1, 1994, Jan. 1, 1995 and a final status report by June 30, 1995.