

Developing Successful Bicycle/Pedestrian Commuter Programs



**A
Handbook
For
Employers**

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**Florida
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Alternative
Transportation**

Handbook For Bicycle/Pedestrian Commuter Programs 2/2/98

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- Blue Cross/Blue Shield of Indiana has offered a fitness and wellness program to its employees for seven years. The company has saved \$2.45 in health benefit costs for every dollar it spent on the program, an annual return of 13% on funds invested. ¹

The Toronto Municipality Personnel Department implemented a local fitness program, where a small cash incentive was awarded to those employees who improved their fitness levels. A cost/benefit analysis revealed that for every \$1.00 spent, \$1.41 was saved in various healthcare costs.²

Introduction

This booklet is designed to provide employers with the framework needed to institute a successful bicycle/pedestrian commuting program. Similar programs around the country have saved companies money in healthcare benefits, parking costs and workman's compensation claims. Programs such as these often save substantial amounts of money. The Canada Life Assurance Corp. has a cost-benefit ratio of \$3.40 for each investment dollar. These programs have also contributed to improved employee morale, productivity and reduced employee turnover. By promoting an ecologically sound concept such as bicycling and walking to work, your company or agency presents a positive image to the public. This can be extremely beneficial in this era of "environmental marketing."

It is our hope at the Marketing Institute at the College of Business at Florida State University that your program will be successful. We are a resource to aid in that goal.

How Bicycle/Pedestrian Commuting Benefits Employers

I. REDUCED HEALTH CARE COSTS

Numerous studies have shown that employees who engage in regular exercise programs can substantially cut health care costs. Health care expenditures in the United States are the world's highest and are currently estimated at 16% of GNP. The percentage of GDP spent on health care in the United States was roughly 4% over other western countries and almost a full 5.5% over Japan. The amount of the GDP spent on health care in the US is expected to reach 28% of the GNP by the year 2030. As an employer, you are probably picking up a significant portion of that tab. In its March 23, 1992 issue, FORTUNE magazine reported that in 1990, employer contributions to employee health care benefits was \$186 billion. This figure, which is extremely large on its own, is much larger when it is noted that it is larger than the combined after-tax profits recorded by corporate America in the same year.

- In 1989 General Electric built a fitness center for its

5500 employees and their families at its Aircraft Engine unit in Cincinnati, Ohio. During a two year study period, health care costs for non-users rose 22%, (from \$757 to \$941 per employee) while health care costs for facility users declined by 38%, (from \$1,044 to \$773 per employee). The center saved General Electric \$1,000,000 over the study period, and the company suggested that savings would have been higher had all of its 5500 employees participated.³

II. DECREASED ABSENTEEISM & TURNOVER

After studying seven major variables, including gender, age, race, education, family income, marital status, and levels of physical activity, the National Center for Health Statistics stated that physical activity is one of the few factors that have a statistically significant effect on absenteeism.⁴ In some cases, physically fit employees are absent up to two or more fewer days per year.

Excessive absenteeism forces employers to carry a larger payroll than is necessary or efficient to keep all duties covered. Even average absenteeism is detrimental to firms as workers present must pick up the slack for their absent co-workers resulting in lost productivity and morale.

Turnover has a similar negative effect. The United States Department of Labor states that non-farm employers spend an average of 1.5% of payroll on employee training. In Florida during 1990, payroll for non-farm workers amounted to \$114.2 billion which equates to training costs of \$1.7 billion. Training costs when combined with turnover of valuable employees becomes a major budget item. When a medium term or long term employee leaves, he/she takes with them not only the training you have provided, but also the valuable experience they gained with your company.

- A four year internal research study at Research at Tenneco, (a diversified multinational corporation that includes Tenneco Oil, Newport News Shipbuilding, and Monroe shock absorbers) examining the data from a 4 year internal study has drawn a strong correlation between turnover and participation in the firm's fitness and health programs. Results showed that those who participated in the programs were significantly less likely to leave the firm, when compared to non-participants, thereby reducing the firm's inprocessing, outprocessing and training costs.⁵

McDonalds Corporation spends approximately \$450 per employee in training costs at its 1000+ company owned stores in the United States. When coupled with an average turnover rate of 150% for a typical store of 30 employees, this indicates annual training costs per store in excess of \$20,000, due to turnover alone.





A Berkeley Wellness Letter report states that stressful commuting "impaired personal well-being, job satisfaction and quality of home life."

III. INCREASED PRODUCTIVITY

Bicyclists and walkers have been shown to arrive at work with lower levels of stress than those who commute by automobile. The Berkeley Wellness Letter, published by the University of California at Berkeley, reports that "chronic exposure to traffic congestion produces an increase in baseline blood pressure, lowering of frustration tolerance, increases in negative mood, and aggressive driving habits." Stressful commuting impaired "personal well-being, job satisfaction and quality of home life."⁶ In contrast, bicyclists and walkers often report feeling relaxed and more alert after arriving at work.

Research compiled for the SHRM foundation by the University of San Diego's School of Business indicated that employees who exercised reported a variety of benefits from doing so. Of the respondents who did exercise, 60% stated that exercise enhanced their energy levels and improved their performance, while 87% stated that exercise reduced their stress levels. The combination of increased energy and decreased stress allow employees to concentrate more readily on the tasks at hand, thus becoming more efficient and productive.

IV. REDUCED PARKING COSTS

It is not unusual for employers to spend over \$50 per employee per month for a parking spot. At over \$600 per year per employee, considerable savings can be achieved by getting employees to use alternative means of getting to work. The table on the adjoining page will help illustrate the potential savings which can be gained by instituting a bicycle/pedestrian commuting program. It compares the cost of 12 employees who drive by themselves to work and 12 employees who bicycle to work.



Bicycle lockers can save space when compared to automobile parking.

Average Parking Costs Comparison^{7,8}

Initial Year Savings

Automobile Parking Cost Per 12 Employees

Initial cost of automobile spaces (includes construction and cost of lease or purchase not essential for conducting business.) **\$30,000-\$60,000**

Cost of 12 Bicycle Lockers **\$4,800**

Cost of one auto parking space to install bank of 12 bicycle lockers on. **\$2,500-\$5,000**

Totals **\$7,300-\$9,800**

Note: By placing bicycle lockers in areas not suitable for parking or office space, the savings can be increased.

Initial Savings for Bicycle Lockers: **\$22,000-\$50,200**

Yearly Savings After Initial Investment

Automobile Parking Costs Per 12 Employees

Average yearly costs for maintenance and taxes for 12 parking spaces: **\$6,000**

Recurring Bicycle Costs

Marketing, incentives and bike commuter program management costs per year: **\$1,200**

Maintenance and taxes for one parking space per year for 1 bank of bike lockers. **\$500**

Total Costs: **\$1,700**

Average Yearly Savings for Bicycle Parking: **\$4,300**

- Mesa Petroleum, one of the largest independent producers of oil and gas in the United States, provides its employees with a wide variety of fitness and wellness programs. The company estimates that as a result of its extensive fitness and wellness program, it annually saves \$1.6 million in health care costs for its 650 employees and their families-- a savings of approximately \$2500 per family.⁹

How Bicycle/Pedestrian Commuting Benefits Employees

Some experts estimate that half of the functional losses that people experience between the ages of 30 and 70 are in fact attributable to lack of exercise. Below is a listing of some of physiological effects typically associated with aging:

- *By middle age, blood vessels have typically narrowed by 29%.*

- *Between the ages of 25 and 60, the circulation of blood from arms and legs slows by as much as 60%.*

- *Muscle fiber is lost at a rate of 3 to 5% a decade after age 30, leading to a loss of 30% of muscle power by the age of 60.*

- *The speed at which messages travel from the brain to nerve endings decreases 10 to 15% by the age of 70.*

- *Both men and women experience a severe decline in bone density as they age which makes breaks much more likely as the bones become too light and porous.*

Bicycling Provides Fitness -- Bicycle commuting can provide excellent fitness opportunities for employees. Bicycling is widely regarded as one of the best all-round exercises in which a person can participate. Unlike running, bicycling does not put significant strain on knees and ankles. Often, runners who experience knee and ankle difficulties switch to bicycling to avoid such problems. Bicycling provides a great cardiovascular workout while providing various other benefits including an intense strength workout for the legs and stomach muscles.

Bicycling Strengthens Lower Back -- Lower back pain is a common cause of visits to physicians, second only to the common cold. Bicycling is one of the few activities that exercise the small muscles that surround the spine which are important in keeping the back strong and healthy. When strengthened, these muscles can help heal present back injuries and help prevent future ones.

Walking Safely Benefits Cardiovascular System -- Walking is perhaps the safest physical activity an average person can engage in; yet it can provide the greatest health benefit. This is particularly so for the sedentary person who begins an exercise program. Walking can provide a complete cardiovascular system workout which is gentle on the joints.

Walking Reduces Bone Loss -- Regular walking has been proven to slow down the process of osteoporosis by keeping bone density loss at a minimum. Studies have shown that inactivity can play a large part in promoting bone loss. Various exercises, including walking can be vital to slowing the loss. ¹⁰

Exercise Keeps Minds Young -- A report by the Baltimore Longitudinal Study of Aging has shown that with exercise, many mental capacities are stabilized with age. Comparisons of mental agility between younger individuals and older individuals who exercise show that the elders react about as fast as their juniors and significantly faster than their sedentary peers. Regular aerobic exercise not only helps preserve neurological functioning into old age. It also can enhance those functions in older, sedentary individuals.

A related report by the Washington Business Group states that an active 55 year old man has about the same physical fitness level of a non-active person 20 years his junior.

Bicycling and Walking to Work Can Create Free Time -- In addition to being intensive and fun exercises, bicycling and walking can be a practical and productive parts of the day. According to a poll by the Louis Harris organization, 50% of all trips including work commutes are 5 miles or less which is an easy distance to bicycle. Driving to and from work depending on where you live and work, can take a significant period of time. Many people have very busy schedules which do not allow them to exercise as often as they might like. Commuting by bicycle or foot allows an employee to take an unproductive period of time, typically spent sitting alone in an automobile, and use it for exercise. By exercising during their commuting time, employees can avoid taking time away from their family or other interests.



This company team participated in the Tallahassee Sunshine Cycling Festival in October of 1992. The employees and their families benefited.

Commuting by bicycle or foot allows an employee to take an unproductive period of time that is typically spent sitting alone in an automobile and use it for exercise.

Chapter 2

Keys to Setting up a Successful Bicycle/Pedestrian Commuter Program

- I. GET EMPLOYEES INVOLVED
- II. REMOVE “BARRIERS” TO BICYCLING AND WALKING
- III. HAVE STRONG MANAGEMENT SUPPORT

I. GET EMPLOYEES INVOLVED

Getting employees involved in the planning and operation of the program is a must. To get them to actually bike and walk to work, the program must effectively address their needs. These employees are the best source of information for developing the most effective program ideas. Although you may not implement all of the suggestions employees develop, their input is critical both in terms of their feelings of ownership in the program and in simply knowing what problems to address. This can also help improve employee morale and promote a sense of unity among employees.

II. REMOVING “BARRIERS” TO BICYCLING AND WALKING

The second key to success is removing your employees' “barriers” to bicycling and walking. This can be done by querying employees about their attitudes on bicycling and walking to work. Part of this process should be to ask employees two questions: “Why do you choose not to walk or ride your bicycle to work?” and “What would it take to get you to walk or ride your bicycle to work?” Some of the barriers that employees could mention include: distance between work and home, lack of a bicycle, need of car for emergencies, or work schedule flexibility. Some obstacles upon a closer examination become much less intimidating and others can be overcome with cooperation between employer and employee. In order to have a successful program, overcoming these barriers needs to be addressed by your company. (This is covered in more detail in the section *Answering Employees' Excuses for Not Bicycling to Work* on page II-3.)



A national poll published by the Louis Harris Organization in 1991 showed that only 1 in 60 Americans bicycle to work on a regular basis, but that could jump to 1 in 5 when certain conditions existed. The conditions most often stated were:

- *Safe Bike Lanes*
- *Financial Incentives*
- *Showers & Lockers at Work*

III. STRONG MANAGEMENT SUPPORT

Remember that bicycle commuting benefits both the employer and the employee, and therefore, employees must be shown that at a minimum, management supports the idea of bicycle commuting. This does not necessarily mean that the CEO needs to get out and ride to work from his home five days a week, but it does mean showing that the company supports those employees who do choose to bicycle or walk. That support can be shown through a variety of ways including bicycle lockers, showers, loaner bicycles, or any of the incentives covered later in this handbook.

How to Set Up a Bicycle/Pedestrian Commuter Program

Program Coordination & Leadership -- If your firm currently has a fitness/wellness coordinator or an employee transportation coordinator (E.T.C.), they would be logical people to head a bicycle/pedestrian commuter program. If these resources are not available you will have to appoint someone to oversee the bicycle/pedestrian program. One of the most important attributes of a successful bicycle/pedestrian commuter program is having an employee who is enthusiastic about operating such a program. This is usually someone who loves walking or bicycling. Consider allowing this employee to dedicate 8 or more hours a week to get this program started.

Evaluate Interest -- Evaluate current and potential interest in the program by employees. Be aware that preliminary data rarely reflects the eventual usage rates of an activity once it has been organized.

Evaluate Facilities -- The program coordinator should be in charge of evaluating what facilities and related programs are currently available to employees and how they should be supplemented to encourage bicycle commuting. For example, if showers are currently available but all of the lockers are being utilized, you could consider purchasing additional lockers and reserving them for bicyclists and walkers.

Select Safe Routes -- The coordinator or committee member should also map out safe bicycling and walking routes to your organization's site. The emphasis should be on general routes between major residential areas and your work site. Information can be fine tuned with input from other cyclists and walkers.



Answers to Employee Excuses (Barriers) for Not Bicycling or Walking to Work

At some point, you will have to answer employee objections to bicycle/pedestrian commuting. Listed below are many common excuses employees give for not walking or bicycling to work.

- "It'll take too long."

In many metropolitan areas, it actually takes less time to commute five miles or less by bicycle than an automobile. In areas where this is not true, bicycle commuters can drop their health club memberships or reduce their workout times while maintaining a high level of fitness and have more time for their families and other pursuits.

- "I'll be too sweaty, and I need to be nicely dressed for work."

During hot weather, employees can often shower in workplace or nearby fitness clubs. Fresh business clothing can be carried in special bicycle garment bags or kept at the workplace and replaced weekly. If showers can not be provided, employees can freshen up with a washcloth and towel or sports sponge in a restroom.

- "There's nowhere safe to keep my bike at work."

Many buildings have adequate facilities for locking bicycles. The ideal is to have covered, guarded and locked facilities. If these can not be provided, the best place is the employee's office. If this is impractical, arrangements can be made with a building manager to locate another suitable location. (See the section on bicycle parking on page II-9 for more detail.)



A national poll published by the Louis Harris Organization in 1991 found that 50 % of employees live within 5 miles of their workplace. This distance can often be bicycled in 20-25 minutes.

The bicycle lockers pictured to the left are provided to the employees of the Florida Department of Transportation. They provide safe, parking which is well protected from the elements.



The City of Davis California provides bicycles to their employees for business use. These were unclaimed stolen bicycles

· "I live too far from work."

Although some employees certainly live far from their worksites, approximately 50% of American commuters live within 5 miles of their worksite. A five mile bicycle ride can take as little as twenty minutes after a person gets in shape and becomes familiar with their route. Distances over 5 miles can be managed by stronger cyclists or by an employee riding to a transit stop, parking their bike and taking the bus the rest of the way. Some transit agencies provide racks for taking bikes on buses. Distances up to 2 miles are easily walkable by the average person.

· "There's too much traffic and I'm not comfortable in it."

The key to overcoming this fear is to help your employees find a safe route away from high speed roads and heavily congested intersections. Enlist the aid of other bicycle/pedestrian commuters, bicycling and walking clubs, and bicycle/pedestrian coordinators to identify desirable routes. Bicycling in traffic is a skill that can be learned with the aid of seminars or by riding with other cyclists accustomed to riding in traffic. Many experienced cyclists will gladly assist in these efforts. Another solution is to provide flexibility in employee work hours so they can avoid peak traffic periods.

· "I don't have a bicycle."

Employers can help an employee purchase a bicycle, or employers can purchase bicycles so that an employee can "test out" the idea of bicycle commuting before they make the investment on their own. Some employers let employees earn their "loaner" bike by cycling to work for a minimum of three times a week for a year. Additionally, many police stations and universities have bicycles that have been impounded which they may be willing to part with for a small fee. Also, many bike shops will agree to provide your employees with some type of preferred account if it can be shown that there may be a significant number of potential customers.

· "I can't get enough exercise being stopped at red lights" or "I live too close to make the commute worthwhile."

Help your employees select optimum routes which provide a good degree of safety yet still allow for a good fitness opportunity. Find uninterrupted stretches of roadway. Oftentimes, the best bicycling and walking routes are not the shortest. Enlist the aid of other bicycle/pedestrian commuters, bike shops, local bicycle/pedestrian coordinators, and bicycling and walking clubs.

- "The hills between home and work are too difficult."

In some areas, this is a problem for beginning walkers and cyclists. Assure your employees that with repeated exercise, strength and endurance builds up rapidly. This will make the hills easier over time. Instruct employees in proper gear shifting techniques which best utilizes their strength. Provide mechanical inspection of their bicycles to ensure that gearing is adequate to handle hills.

- "I prefer riding with people."

Set up bike buddy programs, Bicycle User Groups (BUGS), walking clubs, etc. It is helpful for new bicycle commuters to ride with experienced cyclists to learn routes and techniques for riding in traffic. Cycling or walking with others also provides an essential support system.

- "What if I have errands or meetings midday?"

If it is impossible to run the errands or attend meetings on bicycle or foot, the employer should ideally provide a motorpool vehicle. If this is improbable, then employees could drive those days. In such cases, free or preferential automobile parking should be provided for them.

- "I need my car in case an emergency arises."

Many firms or Transportation Management Organizations (TMO's) offer emergency ride home programs, which promises an employee who uses a form of alternative transportation that they will be provided with a guaranteed ride home in case of an emergency. Usually, employees who are in need of this service get a ride from one of their co-workers, but the company's promise of a ride, offers a key psychological benefit to employees who consider utilizing alternative transportation.



Many transit systems provide bike racks on their buses or allow bikes on their rail system vehicles. This can increase the versatility of both modes.



This map serves as a master route map for all commuter cyclists in Fleetwood Mobile Homes' Mud Sweat and Gears Program



After 4 months of operation a waiting list was started for the 22 clothing and 12 bicycle lockers at the Florida Department of Environmental Protection. Many employees now share clothing lockers.

· "My work schedule does not allow me to."

Flex time is an option that allows employees to adjust their work schedules to accommodate the particular needs associated with bicycling and walking.

· "People will think I'm strange if I ride my bike to work."

This will not be an issue if there is top level management support for the program. It will be a desired commuting mode if top level management actually walks or bikes to work.

· "What about bad weather?"

During severe storms, cycling and walking can be difficult. In this case, cyclists and walkers can be encouraged to carpool, use transit, or drive. Special clothing is available which can be worn in cold and/or rainy weather. Also bad weather is an exception and in Florida, summer rains can be a welcome relief from stifling heat.

· "What about breakdowns and flat tires?"

Some companies offer a program that picks up bike commuters who experience flats or break-downs. Other companies keep repair supplies on site. These programs are reassuring to new riders. By educating riders in proper maintenance, using tube liners, and avoiding debris, flats can be minimized.

Provide Secure, Sheltered Bicycle Parking and Showers

To make bicycling and walking appealing to employees, safe covered bike parking and showers should be available. If you are a small employer and the cost or space for a shower is prohibitive, explore using other shower or fitness facilities in nearby buildings. There are other options for bicycle parking which are discussed in more detail in the Bicycle Parking Section. It is imperative that bicycle parking be convenient and bikes are safe from theft and the elements. These basic elements should be in place before any of the following incentive programs mentioned can be truly effective.

Provide Incentive Programs

Incentives can be an important part of a successful bicycle/pedestrian commuter program. The primary incentives to encourage bicycling and walking to work are showers, lockers and secure bicycle parking. Other suggestions for incentives are provided below and in the sidebars:

- Offer a ***guaranteed ride home*** to anyone who utilizes alternative transportation. This can be arranged through a local taxi or rental car company. In practice, most employees arrange for a ride with their co-workers and use this benefit very infrequently. However, it does provide the psychological assurance necessary for many employees.

- Recognize bicyclists at company-wide functions with certificates or ***T-shirts*** emphasizing bicyclists' environmental or health awareness.

- Offer "***Flex-time***" ***schedules***. Make it possible for bicycle/pedestrian commuters to arrange their work schedules to avoid peak-hour traffic congestion and darkness.

- Permit a more ***relaxed dress code*** on specified days.

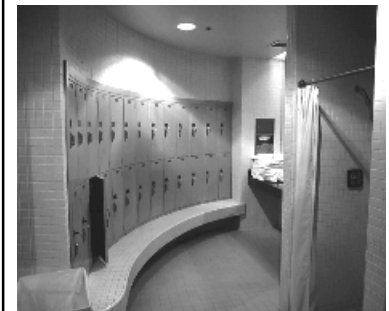
- Give bicycle/pedestrian commuters ***time bonuses*** such as 15 minutes of vacation time for each commute trip.

- Provide a company-owned ***bicycle pool*** for short business trips, errands, and recreation.

- Allow an occasional 15 minute ***grace period*** for bicyclists who experience a breakdown or similar incident which causes them to arrive at work late.

- Utilize a point plan that ***awards*** employees for bicycling to work. These points can accumulate and be redeemed for ***cash or prizes***.

- Allow bicycle/pedestrian commuters ***time to shower or freshen-up***. Allow them 15 minutes with pay. For an entire week, this would constitute only 1 hour and 15 minutes. The State of Florida instituted a pilot project that allowed state employees in Tallahassee three 1/2 hour periods a week for approved fitness activities. Bicycle/pedestrian commuting was an approved activity.



Showers and lockers make a big difference in getting employees to bike or walk to work. Facilities do not need not be as elaborate as the above at Fleetwood Mobile Homes.

In a national Harris Poll from 1991, 47% of the respondents who had ridden a bike that year said they would consider commuting by bike, or commuting by bike more often if there were financial or other incentives from their employer.

Financial Incentive Ideas:

- **Give cash** to bicyclists and walkers for part or all of the parking spaces they do not use if your business subsidizes parking.

- Pay your employees **\$1 each day** that they walk or bicycle to work.

- Offer financial **help to purchase a bicycle or accessories**. This can be done by arranging a discount at bicycle shops or by arranging a financing or reimbursement plan and payroll deduction. Another option is to purchase safety items such as reflective vests, rear-view mirrors, helmets and lights, and give them to employees who commit to commute by bike at least three times per week. Also, arrange discounts for walking shoes.

- Reimburse employees for **local business travel by bike**. The City of Palo Alto pays their employees 7 cents per mile for approved bicycle travel on City business.

- Award a **monthly prize** of \$25 drawn from a pool of tickets, where an employee gets one ticket for every day they ride their bicycle or walk to work. A gift such as a microwave or VCR could be given away at the end of the year to one of the monthly winners.

Promote Your Bicycle/Pedestrian Commuting Program

- **Publicize** the bicycle/pedestrian program and facilities within your workplace. Reserve a bulletin board and newsletter space for bicycle/pedestrian related issues and information. Often employees are unaware of the programs and facilities are available to them. Once they know about them, they are more likely to use them.

- **Publicize** the bicycle/pedestrian commuter program outside the workplace. Using press releases, interviews and events, make the local media aware of your organization's program. Become involved locally in bicycle pedestrian issues and events and make a good name for your organization.

- **Hold workshops** on bicycle maintenance, safety and other biking and walking topics. Lunch hour is a good time for these workshops.

- Designate a person to coordinate bicycle/pedestrian commuter concerns and organize an employee *biking and walking club*. Members can coordinate routes and help new bikers and walkers. Provide participating employees with club T-shirts displaying the company logo.

- Organize a company-wide *Alternative Transportation Day* which will encourage commuters to try bicycling, walking, carpooling, or transit.

• Guidelines and Model Ordinances for Bicycle Facilities

Parking

It is imperative that employees know that their bicycles are safe when at work. Bicycle parking should be clearly labeled, accessible by a convenient ramp and located as close to the building entrance and shower facilities as possible. It should be convenient with no stairs to negotiate and be sheltered from the elements. Parking should be located where there are people or security personnel present. Out of the way places give would-be thieves plenty of time to operate. It should not interfere with pedestrian traffic. Good lighting should also be provided. Bicycle parking facilities should be separated from automobile parking facilities by a barrier or a sufficient distance to prevent damage to parked bicycles by automobiles.

If it is impractical to provide good bike racks or lockers, employees should be permitted to keep their bicycles in their offices or in a locked storage room.



The bulletin board pictured left is from the Fleetwood Mobile Homes' Mud Sweat and Gears Program. All bicycle commuting information is clearly labeled and available at this central location.

In a national Harris Poll from 1991, 45% of the respondents who had ridden a bike that year said they would consider commuting by bike, or commuting more often if there were showers, lockers and secure bike storage at work.



These molded fiberglass lockers are both attractive and extremely durable.

Guidelines for selecting lockers and racks are listed below. Contact the manufacturers listed in the appendix or the Bicycle/Pedestrian Commuter Center for more details.

Bicycle Lockers

Lockers are generally the most secure and weatherproof bicycle storage devices. Employees are confident that their bicycles will be secure. Lockers vary in price and materials. In urban, high crime areas, low price should not be a main factor in selecting a bike locker. In areas of high humidity and where the lockers are exposed to rain and moisture, low priced particle board lockers will not last. In covered, dry locations such as parking garages, lockers of particleboard and other wood products will suffice.

Racks

No bicycle rack alone provides the security and protection from the elements as well as a bicycle locker. However, by locating a rack in a covered, locked compound or storage room, (see illustration) excellent security can be obtained. Racks should support the bicycle by the frame **and** front wheel. Racks should allow a U-Lock to be used to secure the bicycle frame and front wheel to the rack. (See illustrations in the sidebars.)

Even if you provide long term bicycle parking such as bike lockers, a small rack should be provided for visitors and employees who wish to bicycle to work occasionally. By providing convenient bicycle parking and easy pedestrian access, your firm can become one of a network of workplaces encouraging bicycling and walking. When an entire community embraces bicycling and walking, everyone benefits from less congested roads and reduced air pollution.

Compounds

Compounds can be a creative, low cost solution to bicycle storage. The key factors are convenience, safety and shelter from the elements. They can be as simple as a covered fenced area or as elaborate as the one pictured on the top of page 2-11.



Shelter

Without covered parking, bicycles will rust if exposed to the elements regularly. Because most bicyclists are not willing to leave a good bicycle exposed to the elements, unsheltered parking would be a deterrent to bicycle commuting.

Guidelines for the correct number of parking facilities

By getting input from your employees in survey data, you should arrive at a general figure for the number of bicycle lockers your firm will need. Also, many communities have ordinances governing the number of bicycle parking spaces for an employer to provide. In Palo Alto, California, which is very bicycle oriented community, employers are generally required to provide bicycle spaces which reflect at least 10 % of the number of off-street automobile spaces provided.

The Marketing Institute at the FSU College of Business can provide you with copies of various ordinances from around the country and assist you in determining an appropriate number of bicycle parking spaces to provide if your community does not have such an ordinance.

Shower and Changing Facilities

Showers

Many employees will not even consider riding a bicycle or walking to work without the assurance that they can shower when they arrive. Showers also allow employees to participate in recreation or exercise during lunch hour. In buildings with 50-100 employees, one shower should be sufficient. In buildings with 100-250 employees, one shower for each sex should be provided. Buildings housing over 250 employees should provide at least 4 showers with two of them being accessible to the disabled.



Rack 3



Wave or Ribbon Rack



Cora Rack

The accompanying table shows typical shower installation costs. (See ADA Guidelines Sections 4.21-4.23, 4.26, & 4.35 for technical details in making shower facilities accessible to those with disabilities.)

Clothes Lockers

Ideally, there should be one lockable clothing locker provided for every long term bicycle parking space provided. The regular bicycle/ pedestrian commuter can store work clothes in these lockers to change into. Lockers should be roomy enough to hold a week's worth of clothes. In addition to providing a locker to each regular bicycle/ pedestrian commuter, other lockers should be made available to encourage other employees to try bicycle/pedestrian commuting. These additional lockers will also encourage lunch-time fitness activities which benefit both the employee and the employer.



This shower which allows wheelchair access is located in the Florida Department of Environmental Protection as part of the Bicycle/Pedestrian Commuter Center located there.



Shower Costs

	1 stall, one room	2 stalls, one room
Tie into vent & exhaust	\$ 2240	\$ 2240
Waterproof wall	\$ 1746	\$ 3492
Tiling	\$ 1600	\$ 3200
Plumbing	\$ 2314	\$ 2314
Total	\$ 7900	\$11,246

	2 rooms, 1 stall each	2 rooms, 2 stalls each
Tie into vent & exhaust	\$ 2240	\$ 2240
Waterproof wall	\$ 3492	\$ 6984
Tiling	\$ 3200	\$ 6400
Plumbing	\$ 3471	\$ 3471
Total	\$12,403	\$19,094

Formula to Add 1 Stall

Tie into vent & exhaust	n/a to small facilities
Waterproof wall	double \$\$ for each stall
Tiling	double \$\$ for each stall
Plumbing	negligible \$\$ amount to add/stall

Based on 1993 figures in Tallahassee, Florida, during an office renovation project for the Florida Department of Transportation Safety Office. The shower facility was located near existing restrooms.

A fiberglass handicap transfer shower unit is approximately \$1000 w/ fold-down seat, shower & hardware

Chapter 3

Funding Sources and Resources for Bicycle/ Pedestrian Commuter Programs

By combining efforts with other employers or government agencies, it may be possible to fund showers and bicycle locker facilities with public funds earmarked for transportation. Several sections of Intermodal Surface Transportation Efficiency Act (known in transportation circles as ISTEA) make it possible to fund programs and facilities that encourage bicycle and pedestrian commuting. The road system can be relieved of a percentage of automobile traffic by motivating workers to bicycle and walk to work, therefore the federal government is willing to fund these programs. Funds earmarked for areas with severe air quality problems (CMAQ) have been successfully used to fund public bicycle/pedestrian/transit commuter centers complete with shower and locker facilities. Funds from the Enhancement section of ISTEA may also be available to encourage bicycle/pedestrian commuting. By contacting your state or local bicycle/pedestrian coordinator or Metropolitan Planning Organization, you can get more information about securing these funds. These phone numbers are available from the Florida Department of Transportation Bicycle/Pedestrian Program or FIMAT.

The Marketing Institute at the Florida State University College of Business (Formerly FIMAT)

The Marketing Institute acts as a clearinghouse which provides information and assistance to employers and government agencies interested in setting up alternative transportation programs. Its consultants travel extensively, participating in transportation seminars.

Other Resource Materials Available from the Marketing Institute

Bicycle Parking Products Information Packet

Clothing Locker Guide

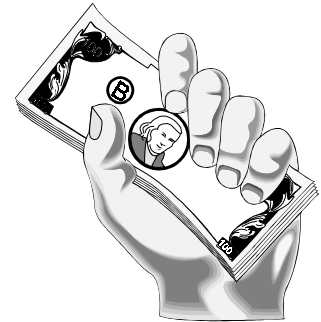
Sample Alternative Transportation Results

Sample City Codes and Ordinances for Bicycle Parking and Amenities

The Real Costs and Benefits of Various Transportation Methods

Bike on Bus a Driver's View - Video

Bicycle Commuting, It Can Work for You - Brochure



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Tallahassee, FL 32306-3037
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(904) 644-6231 Fax
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Key Resources

The Florida Bicycle/Pedestrian Program
Florida Department of Transportation
605 Suwannee St. MS 82
Tallahassee FL 32399-0450
(904) 487-1200
(904) 922-2935 Fax

Provides most up to date listings of bicycle/pedestrian coordinators in Florida, safety information, and technical and touring information.

League of American Bicyclists (L.A.B.), *bikeleague@aol.com*.
1612 K St. NW, Suite 401
Washington, D.C. 20006
(202) 822-1333
www.bikeleague.org

This national organization of bicyclists sponsors annual rallies, lobbies for cyclists' rights, and publishes a membership magazine, *Bicycle USA* which covers advocacy efforts nationwide. The League also sponsors the Effective Cycling Program, the only certified training course for teaching the skills needed for riding in traffic. The course is taught by local instructors. Call the League for details.

The Bicycle Federation of America. *bfa@igc.org*.
1506 21st St. NW
Washington, D.C. 20036
(202) 463-6622

Serves as a clearinghouse for information on all aspects of bicycling and walking. Publishes *Pro Bike News*, a monthly newsletter as well as educational and encouragement literature, and conducts research. Organizes the biennial Pro-Bike Conference which is the premier bicycle advocacy event nationwide.

Bicycle E-Mail

In addition to these organizations, many bicycle/pedestrian advocates and enthusiasts are connected to E-Mail through America Online (*bikenet*) (703) 448-8700 or the internet usenet newsgroup (*rec.bicycles.soc*). There are many excellent World Wide Web pages which the organizations listed above can refer you to.



Endnotes

¹ Management Review, Aug. 1989, p. 37

² Fitness in Business, Feb. 1989

³ Benefits Today, June 14, 1991, p. 183

⁴ Employee Benefit Plan Review, *Absenteeism Linked to Physical Activity Level*, Nov, 1990, pp. 40-42.

⁵ *Tenneco Health and Fitness Program: A Corporate Study*, Dr. William Baum

⁶ University California, Berkeley Wellness Letter, Sept., 1988, pp. 1

⁷ *State Park & Ride Lot Program Planning Manual*, Florida Department of Transportation, 1989

⁸ Urban Land Institute and the National Parking Association, *The Dimensions of Parking, Second Edition*, 1983-updated to 1992 dollars from the Florida Department of Transportation Statistics Office

⁹ Business and Health, Nov. 1990, p. 31

¹⁰ University California, Berkeley Wellness Letter, June, 1989, pp. 1-2

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Bicycling Reference Book, Bicycle Institute of America, 1506 21st St. NW
Washington, D.C. 20036, 1993-94 Edition

How To Commute By Bicycle, An Employer's Guide, By Don Henry.
League of American Wheelmen 190 W. Ostend St, Suite 120, Baltimore
MD 21230-3755

How To Commute By Bicycle, An Employee's Guide, By Don Henry.
League of American Wheelmen 190 W. Ostend St, Suite 120, Baltimore
MD 21230-3755

City of Palo Alto Bicycle and Bikeways Information Packet, Transporta-
tion Division, PO Box 10250, Palo Alto, CA 94303

On Your Bicycle in the Morning, Le Monde a Bicyclette, PO Box
1242, Station L Cite, Montreal (Quebec) Canada H2W 2R3

Bicycle/Pedestrian Elements in the City of Gainesville Land Develop-
ment Code, Linda Dixon, Pedestrian/Bicycle Coordinator, 305 NE 6th
Ave. # 305, Gainesville, FL 32602

Commuting on Your Bike, Bicycling Magazine, Emmaus PA 18098

Metro Phoenix Bicycle Commuter Handbook, Maricopa Association
of Governments, 1820 W. Washington St., Phoenix, AZ 85007

The Business of Bicycling, Go Boulder, P.O. Box 791, Boulder CO
80306

Bicycle Parking, Ellen Fletcher, 777-108 San Antonio Road, Palo Alto,
CA 94303-4826

Pathways for People (Louis Harris Poll), Rodale Press, 33 East Minor
St. Emmaus, PA 18098

Worksite Health Promotion Economics: Concensus and Analysis,
Robert L. Kaman, Editor. Association for Worksite Health Promotion,
Human Kinetics, Champaign, Il, 1995 edition.

Economic Impact of Worksite Health Promotion, Joseph P. Opatz,
Editor. Association for Worksite Health Promotion, Human Kinetics,
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Is Dutch health care a model for the U.S. system? By Joyce Frieden.
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