PARKING AND
TRANSIT POLICY STUDY

Technical Memorandum No. 3
Issues and Recommendations
PREFACE

This is the third of three technical memoranda regarding parking and transit policies to be produced by the Center for Urban Transportation Research (CUTR) for the Florida Department of Transportation. These memoranda comprise the Parking and Transit Policy Study, which is an investigation of the relationship between local parking and transit policies. This memorandum identifies methods for coordinating policies in order to increase transit use and the cost-effectiveness of public investments in parking and transit.

Technical Memorandum No. 1 provided an overview of urban transit and parking policies, programs, and available data for urban areas in Florida with transit systems that are eligible for Federal Transit Administration Section 9 subsidies. Technical Memorandum No. 2 evaluated parking and transit coordination efforts in other states, as well as the impacts of current parking and transit policies in Florida. Technical Memorandum No. 3 identifies complementary transit and parking policies and recommends a strategy for implementation by the appropriate levels of government.
## CONTENTS

Preface ........................................................................................................ iii

List of Figures ................................................................................................. v

List of Tables ................................................................................................ v

Introduction ..................................................................................................... 1

Parking and Transit Policy Issues ................................................................. 1
  Is There Coordination Between Local Transit and Local Parking Policies? .... 2
  Employer-Paid Parking ................................................................................. 8
  Tax Treatment of Parking and Transit Subsidies ........................................... 14
  Parking Location and Supply ..................................................................... 16
  Role of Local Governments in Parking Development .................................. 20
  Impacts of Parking Constraints on Economic Development ....................... 20
  Incentives for Ridesharing ......................................................................... 22

Complementary Transit and Parking Policies ................................................. 22
  Parking Policies ......................................................................................... 23
  Transit Policies .......................................................................................... 27

Recommendations .......................................................................................... 30
  Parking Policies ......................................................................................... 31
  Transit Policies .......................................................................................... 32

List of References .......................................................................................... 38

List of Contact Persons .................................................................................. 41
LIST OF FIGURES

Figure 1  Average Monthly Unsubsidized Parking Rates ........................................ 11
Figure 2a Federal Tax Policy on Parking ............................................................... 15
Figure 2b Federal Tax Options ........................................................................... 15
Figure 3  Commuter Parking Policy Options ......................................................... 17
Figure 4  Downtown Parking Spaces per Employee ............................................... 18

LIST OF TABLES

Table 1  How Employer Parking Subsidies Affect Commuter Mode Choice ............ 9
Table 2  Mode Choice Effect of a Cash Option ...................................................... 13
Table 3  Action Plan ............................................................................................ 35-37
INTRODUCTION

This is the third and final technical memorandum produced for the Parking and Transit Policy Study. It documents the last three tasks of a seven-task study. The purpose of the study is:

"To investigate the relationship between local parking policies and local transit policies and identify approaches for coordinating policies to increase transit use and increase the cost effectiveness of public investments in parking and transit."

This report includes a discussion of major parking and transit policy coordination issues identified during research conducted for the study. A broad range of complementary parking and transit policies is also presented. The pros, cons, and special considerations of these policies are also discussed. From these broad policies, a smaller set of recommended policies and an action plan for their implementation is then presented.

Most of the discussion focuses on parking and transit policies in central business districts (CBDs). The approaches developed in this study, however, may be applied to other regional activity centers, such as the Westshore business district in Tampa, which are characteristically similar to CBDs.

Numerous officials from cities within Florida and in other states were contacted during this study. These persons provided valuable input in areas where little quantifiable data was available. A list of these contacts is provided in the appendix.

PARKING AND TRANSIT POLICY ISSUES

Several issues involving parking and its relationship to transit are relevant to the development of coordinated parking and transit policies. Perhaps the most basic issue involves the question of whether or not there is coordination, or, in other words, what is the relationship between local parking policies and local transit policies? Opinions expressed by local officials
vary and illustrate that coordination is a complex process. Another issue involves the impact of employer-paid parking on mode choice. Research has shown that employer-paid parking greatly contributes to solo driving and that over 90 percent of those persons who drive to work in the U.S. park for free. The federal government’s tax treatment of parking subsidies is another issue because these tax policies currently provide incentives for automobile commuting. Local planning decisions involving parking location and supply is another issue discussed in this section. It is important for transit officials to be active participants in these decisions.

Another issue is the role of local government in CBD parking development. Local governments develop parking for many reasons—to ensure adequate access to downtown, to encourage economic development, and to provide a source of additional revenue for the city. If developed solely for revenue generation, however, the city faces a difficult challenge of balancing its revenue maximization goal with goals of reducing traffic congestion and pollution and supporting public transportation.

The impact of parking constraints on economic development is another issue addressed in this section. The development process is complex and influenced by many factors, including parking. It is important to evaluate how various parking management strategies may affect the development process.

The last issue discussed is ridesharing. While the purpose of this study is to develop complementary parking and transit policies in order to increase transit usage, policies that increase ridesharing at the expense of single occupant driving is viewed as serving a common goal.

Is There Coordination Between Local Transit and Local Parking Policies?

After considerable review of data and after extensive interviews with local officials, the answer to this question is not straightforward. The opinions of local officials on the degree of coordination of these policies vary among the four cities selected for this study. Within each city, opinions vary depending on who is answering the question and how they define coordination.

Certain groups of officials have consistent and predictable opinions about the degree of policy coordination. One group, parking officials in the three cities that have separate parking agencies (i.e., Miami, Orlando, and Ft. Lauderdale), believe there is some coordination. They cite the development of park-n-ride, fringe parking, and/or shuttle bus services connecting parking facilities to the CBD as evidence of coordination. Another group, city planners, also feel that
there is some policy coordination but that coordination opportunities are limited because Florida
development patterns make it difficult for transit to play a greater role in CBD access. A third
group, representatives of the development community, also feel that there is coordination, but,
because the automobile is the predominant mode of choice, parking is extremely important for
downtown access. This group would prefer that transit play a greater role because parking can
add significantly to the cost of a development. The last group, transit officials, generally feel that
they have limited opportunities to influence parking policies.

During interviews with local officials, phrases such as "the role of transit" and
"opportunities for involvement" were often used by officials when discussing the relationship
between parking and transit policies. These phrases illustrate that coordination is a process
involving both "creating" opportunities for coordination and "carrying-out" or "implementing"
those opportunities. Viewed as a process, the issue of coordination is better addressed by the
following questions: Do opportunities for coordinating transit and parking policies exist? And,
if they do exist, how well are they implemented?

Opportunities for coordination are created by either formal or informal mechanisms that
bring together those groups responsible for developing and implementing transit and parking
policies. Formal mechanisms that create these opportunities can be found in federal and state
legislation, and state and local plans. Examples of relevant legislation and plans include:

Federal

- **The 1962 Federal Aid Highway Act** - mandated that all urbanized areas over
  50,000 in population establish a continuing, cooperative, and comprehensive (3C)
  planning process in order to be eligible to receive U.S. Department of
  Transportation Planning and Construction Funds. The 1974 Federal Aid Highway
  Act mandated the creation of a Metropolitan Planning Organization (MPO) for
  all areas required to have a 3C planning process.

- **Clean Air Act of 1990** - requires serious nonattainment and severe nonattainment
  areas to adopt transportation control measures; severe nonattainment areas must
  also require employer-based trip reduction programs (applicable to employers with
  100 or more employees). Florida has only three non-attainment areas, the worst
  of which is classified as moderate. These areas are not required to adopt
  transportation control measures.
**State**

- **Florida Statute 339.175** - closely parallels federal requirements concerning MPOs, but contains more specific language concerning MPO creation, composition, role, and responsibility.

- **State Comprehensive Plan** - contains goals and policies that guide Florida’s long-range physical, social, and economic growth.

- **Growth Management Act** - requires developments of regional impact to develop traffic mitigation plans, which often include TDM initiatives.

**Local (Miami, Orlando, Ft. Lauderdale, and Ft. Myers)**

- **The Miami Comprehensive Neighborhood Plan 1989-2000** - establishes target passenger vehicle occupancy and transit headways for the urban center. Contains policy stating that parking minimums and maximums will be used for on-site parking "to promote economic growth, to facilitate local traffic circulation, and to encourage public transportation use. States that the city will encourage Metro-Dade Transit Authority (MDTA) to expand its system, and will work with MDTA in policy formulation. Establishes the Transportation Plan Technical Advisory Committee to provide intergovernmental forum for policy coordination. Establishes a regional objective of increasing transit ridership to 50 percent of total person trips during peak and 30 percent during non-peak hours. Land development regulations will be used to meet the objective by directing high density commercial and residential development to areas near Metrorail and Metromover stations.

- **Miami Code** - among other regulations, requires transportation control measures to be implemented with new development. Provides developers with alternatives to parking facility construction, such as purchasing two transit passes in lieu of each parking space, leasing or purchasing parking spaces within 600 feet of a Metrorail and Metromover station or terminus of a city-approved parking shuttle, and payments to the Department of Off-Street Parking. Requires large-scale developments to submit a transportation control measures plan as part of the application for a major use permit. Specifies maximum parking requirements within the central core.

- **Orlando Growth Management Plan** - recommends integrated parking and transit policies in land use, urban design, and transportation. Recommends maximum parking requirements and transportation system management measures for downtown developments.
• **Orlando Municipal Code** - establishes parking maximums for non-residential developments. Establishes flexible parking minimums for developers who make specified contributions into the city's Parking Program Trust Fund, which is used to construct off-site parking facilities and fund transit services to these facilities.

• **City of Ft. Lauderdale Comprehensive Plan** - contains several transit-related policies, including the development of programs to enhance employee usage of commuter rail service, preferential treatment of high-occupancy vehicles, and expansion of ridesharing efforts.

• **Ft. Lauderdale Code** - establishes the core of the CBD as a parking-exempt zone, that is, there are no parking requirements for new buildings and developments.

• **City of Ft. Myers Comprehensive Plan** - contains a policy stating that roadways exceeding the level of service standards shall receive priority for mass transit routes and "soft" improvements such as ridesharing.

While the formal mechanisms created by these acts and plans are important, the informal mechanisms--those established by the actual working relationships and interactions between organizations (e.g., the city planning department, the development community, and the transit agency) and the persons within these organizations--are equally, if not more, important. The type of relationship that one organization has with another (e.g., strong, supportive, weak, or adversarial) is formed by the goals, attitudes, perceptions, and biases of that organization, and by the persons within that organization. Further, a good or bad working relationship between organizations hinges on how well two individuals in key positions like each other. Another aspect of this informal mechanism involves local planning and transit agencies working together to educate those elected officials who establish these policies on the need to coordinate parking and transit policies. When these agencies work in a concerted effort, the level of education is enhanced and the relationship between transit policies and parking policies improves.

These informal mechanisms generally set the tone of the coordination process. In Orlando, for example, the City Planning Department, Lynx, the Downtown Orlando Transportation Management Association, the Downtown Development Authority, and the Parking Bureau have established particularly strong working relationships and lines of communication.
While good working relationships are essential for coordination, the outcome of the coordination process (i.e., whether a policy coordination event results in a policy or action that is supportive of transit) may depend on other factors. This is the other aspect of the coordination process—that is, the actual "carrying-out" or implementation of coordination activities. This aspect involves how effectively transit "sells itself" (or how well other officials represent the interests of transit) during coordination opportunities.

The formal mechanisms and good working arrangements among local government agencies would seemingly ensure a strong relationship between parking and transit policies. In Florida’s cities, however, the relationship often disappears or is severely weakened when local land use issues are considered. In other words, any problem with coordination or, at least, the perception of a problem in Florida tends to result during implementation of coordination opportunities. Viewed from the perspective of relative negotiating strength, since transit serves a small proportion of downtown person trips (with the exception of Miami), transit agencies typically do not have a significant voice in developing CBD land use and access policies, including parking policies. Even in Miami, transit officials have little influence in parking issues other than those involving park-n-ride and Metrorail and Metromover parking.

Transit’s relatively weak negotiating strength is largely the result of several interrelated factors:

1. the fiscal constraints of transit agencies,
2. Florida’s prevailing development patterns,
3. the influence of employer-paid parking on mode choice, and
4. an over supply of parking in downtown areas.

Public transit in Florida recovers, on average, 30 percent of its operating expenses through the farebox. The major market for CBD-destined trips consists of professionals who typically commute by automobile from low-density suburban locations, which are difficult to serve efficiently with fixed-route service. Because of its reliance on public subsidies, transit officials are not in a position to invest resources in these areas. Employer-paid parking is a factor that reinforces dispersed development patterns because employees have little incentive to live in transit accessible areas. The 1990 National Personal Transportation Survey indicates that 90 percent of those persons who drive to work park for free because of employer-paid or -provided parking. These subsidies are a significant factor affecting solo commuting. In addition, local officials in each of the four Florida cities studied indicated that there was an ample supply, if not an over supply, of parking in the downtown. Since supply and price are interrelated, overall
parking prices are generally low for those persons who do pay all or part of their parking costs. Because of these factors, when local officials are confronted with an issue involving land use and access, transit is not viewed as a significant transportation alternative.

The relationship between negotiating strength and mode share is somewhat subjective and paradoxical. Because of its subjectivity, the relationship is difficult (if not impossible) to quantify. The relationship between negotiating strength and mode share is paradoxically similar to a person seeking employment, but unable to find a job because of no experience—in order to obtain a job, the person needs experience, but cannot gain it without first having a job. In the absence of other policy considerations, such as those created by severe air quality or traffic congestion problems, a transit agency will typically have little negotiating strength in policy deliberations involving parking if the CBD mode share for transit is small.

It is important to point out, however, that a mobility-related crisis may easily affect this basic relationship. In Bellevue, Washington, for example, city planners recognized that because of limited space in the downtown and projected development, infrastructure enhancements alone would not provide sufficient capacity to meet future travel demand. Bellevue faced many of the same challenges that Florida’s cities face today—low density development patterns, development competition from suburban cities, and low transit mode share. As a result, beginning in 1983 the city required developers of all new buildings to submit transportation demand management plans. In addition, a program of transit services including regular, express, and park-n-ride services that converge at a transit center in the downtown was also developed. Further, a transportation management association was formed in 1986. Bellevue’s efforts have been successful in reducing solo driving, and the city is generally recognized as being among the most innovative and aggressive in implementing transit and ridesharing policies. The impetus behind Bellevue’s efforts was largely due to the city’s response to a crisis situation involving traffic congestion and development. The city was successful in its efforts, in part, because of its ability to get officials to recognize the crisis and to build consensus for the program.

Florida’s cities are generally following the same path that Bellevue took a decade ago, but several factors may complicate the process. First, Florida is one of the most automobile dependent states in the country (if measured by licensed drivers as a percent of total population or registered automobiles per capita). Strong policies to reduce solo driving are likely to encounter significant resistance among the general population. Second, many of Florida’s cities face fierce competition from suburban locations for development activity, which will cause local officials to be reluctant to implement tight parking controls in downtown areas. Third, the
slowdown in development activity in many cities has temporarily diffused the growth management concerns of the mid-1980s; many of the controls established in legislation simply have not been tested. Therefore, in the absence of an underlying major external crisis that creates a clear public mandate for change (e.g., extreme severe air quality problem or a severe gasoline shortage), Florida’s cities are not likely to adopt an aggressive approach to coordinating parking and transit policies.

Given these conditions, what can Florida’s cities do to improve the relationship between parking and transit policies? Until public sentiment or other external conditions change, Florida needs a gradual approach that consists of innovative market-driven (rather than regulatory) policies. **Developing additional coordination opportunities through formal mechanisms, such as developing highly structured intergovernmental coordination agreements, are not needed.**

Many policies are in place that would aid in reducing solo driving and increase use of transit and ridesharing. The state is already addressing dispersed development patterns through its growth management legislation. As the pace of development activity increases, the provisions of this legislation should begin to, at least, limit urban sprawl. Further, many of Florida’s cities have implemented park-n-ride and ridesharing programs to better serve low-density suburban areas. Strategies to reduce the extent of employer-paid parking hold great potential for affecting significant modal changes from the automobile to transit and ridesharing.

**Employer-Paid Parking**

In most areas of the country, solo driving is the principal mode of access for work and other trips. The 1990 Census indicates that 73 percent of the nation’s workforce drives alone to work. Several factors are responsible for the high level of solo driving in the U.S., including free or inexpensive parking at the workplace, an abundant supply of parking at many destinations, dispersed work sites created by suburban office development, high automobile ownership levels, and other factors. Research on parking cost and commuting habits concludes that of these factors, employer-paid parking is one of the most important influencing solo driving. Table 1 shows results of several case studies compiled by Shoup and Willson relating how parking subsidies affect commuter mode choice. As shown in the table, solo driver shares decreased between 18 and 81 percent when employer-paid parking was ended. The decrease in the number of automobile trips taken to work ranged from 15 to 38 percent. Calculations based on these decreases provide parking price elasticities of demand for automobile commuting ranging from -0.08 to -0.23, indicating that if the price that employees currently pay for parking increases 100 percent (i.e., the price doubles), an 8 to 23 percent decrease in automobile commuting would result.

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Solo Driver Mode Share</th>
<th>Autos Driven per 100 Employees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Employer Pays for Parking</td>
<td>Driver Pays for Parking</td>
<td>Decrease in Solo Share</td>
</tr>
<tr>
<td>Mid-Wilshire, Los Angeles (before/after)</td>
<td>42%</td>
<td>8%</td>
<td>-81%</td>
</tr>
<tr>
<td>Warner Center, Los Angeles (before/after)</td>
<td>90%</td>
<td>46%</td>
<td>-49%</td>
</tr>
<tr>
<td>Century City, Los Angeles (with/without)</td>
<td>92%</td>
<td>75%</td>
<td>-18%</td>
</tr>
<tr>
<td>Civic Center, Los Angeles (with/without)</td>
<td>72%</td>
<td>40%</td>
<td>-44%</td>
</tr>
<tr>
<td>Downtown Ottawa, Canada (before/after)</td>
<td>35%</td>
<td>28%</td>
<td>-20%</td>
</tr>
<tr>
<td>Average of case studies</td>
<td>66%</td>
<td>39%</td>
<td>-40%</td>
</tr>
</tbody>
</table>


Further research conducted by Shoup suggests that for most commuters free parking would be a larger financial incentive to drive alone than free gasoline. Shoup estimated that the 1990 average daily parking subsidy for the 50,000 solo drivers in downtown Los Angeles was $3.87, which was equivalent to 10.8 cents per mile (based on an average 36 mile round trip at 20 m.p.g. and $1.19 per gallon), while total passenger car variable costs in cents per mile totaled only 8.4 cents (including gas and oil, maintenance, and tires). The benefit of employer-paid parking is so great that the federal gasoline tax would have to be raised from 14 cents to $2.29 per gallon to offset this parking subsidy, based on the average Los Angeles trip.

The extent of employer-paid parking in the U.S. is significant. Statistics from the 1990 *National Personal Transportation Survey* indicate that approximately 90 percent of those who drive to work park for free, due to employer-paid or -provided parking. Providing free or, at least, heavily subsidized parking at the workplace is commonly accepted by employers as a standard employee benefit. In addition, many employers believe that the provision of parking helps recruit and retain employees and provides employees with the flexibility to work overtime. Parking can also be provided to employees tax-free. (The parking benefit is tax free if the value
of parking is less than $155 per month; if the value exceeds $155 per month, employees are taxed on the incremental value exceeding $155.) Employees also have come to expect parking as an employer-provided benefit. In fact, parking has been negotiated into labor contracts between unions and management in some companies.

The level of employer-paid parking in Florida is similar to the national experience. Surveys in Orlando, Ft. Myers, and Miami indicate that 81 percent, 71 percent, and 50 percent, respectively, of those who drive to work in the CBDs park for free. (The national average is higher because it includes parking in suburban employment locations, where more of the parking is provided free than in CBDs.) For those who do pay, the unsubsidized parking rates in Florida’s cities are among the lowest of cities of similar size (see Figure 1).

There are several strategies to reduce the extent or the effect of employer-paid parking. One possible strategy would simply involve measures to increase the employees’ out-of-pocket cost for parking. For example, employees could be assessed a parking tax or surcharge at their parking facility, or employees could be taxed on the value of parking received (employees are now taxed on the value of parking that exceeds $155 per month, but no employees within Florida live in areas where parking costs are that high). This type of strategy, however, would be highly controversial given the degree to which free parking has now come to be expected by most employees. The strategy would also have to be carefully crafted so that the employer does not simply absorb the added cost.
FIGURE 1. Average Monthly Unsubsidized Parking Rates.

NOTE: Because data are not available, cities 3, 13, 14, 20, 26, 31, 33, 34, 35, 38, 39, 44, and 49 are not shown.
Another approach to counter employer-paid parking involves increasing the overall cost of automobile commuting by, for example, raising the federal gasoline tax or through congestion pricing. This approach, however, may meet tough political resistance because any increases in federal gasoline taxes or other costs of driving would have to be quite large to offset the benefit of free parking. For example, the federal gasoline tax would have to be raised to approximately sixteen times its current level just to offset the value of the parking benefit (using the Los Angeles survey data). Further, the tax is not limited to those who commute by solo driving. Congestion pricing may be a better solution, but there is limited experience with this concept. In addition, a number of social equity issues arise.

One strategy that has received much attention recently is a parking cash-out or travel allowance option. In a parking cash-out program, employers that provide employee parking must also provide employees with an option to receive a direct cash payment equivalent to the value of parking less appropriate payroll taxes. The employee could use the cash to pay carpool or vanpool expenses or public transit fares, or to pay for parking. Shoup has evaluated this concept extensively, primarily in work performed for the City of Los Angeles.

Shoup cites several advantages of offering a cash alternative to employees:

- Employees would not lose the existing parking subsidy.
- The cash alternative provides employees with an option over the take-it-or-leave-it parking subsidy.
- Lower paid-workers gain the most in after-tax cash because they are in the lower tax brackets, and the cash they do receive would be larger in proportion to a lower income.
- Employers would pay little or no additional cost. For those employees who are presently offered free parking and choose to rideshare or use transit, an employer would still be required to offer the cash option. In this case, the employers' cost would increase. Shoup has argued that the "added expense of subsidizing current ridesharers who are offered free parking but have not taken it should be considered the inevitable and wholly justified cost of moving to a commute subsidy policy that does not discriminate against ridesharers." He believes further that few employers would support current tax policies that encourage solo driving or take a public position against offering employees a choice of a ridesharing or transit subsidy in lieu of a parking subsidy.
- The cash out option will increase federal tax revenue.
- Offering cash to employees establishes the fact that there is a cost for the parking formerly provided by the employer.
Shoup believes that the taxability of a cash payment in lieu of a parking subsidy reduces, but does not eliminate, the effectiveness of this alternative as an incentive to use transit or rideshare. Based on a survey of 5,000 employees and their employers in downtown Los Angeles, Shoup developed a model to predict travel mode shares for three scenarios:

1. For office workers who receive free parking from their employers,
2. For the same employees when the employer offers the (taxable) cash option, and
3. For employees who are required to pay the full market price of parking.

The model results are shown in Table 2. For the cash option, the model predicted that solo driving mode share would decrease from 70 percent to 56 percent, while the carpool and transit mode shares would increase from 15 percent each to 19 percent and 25 percent, respectively. When no free parking is provided, the model predicts greater shifts to transit.

### TABLE 2. Mode Choice Effect of a Cash Option.

<table>
<thead>
<tr>
<th>Mode Choice</th>
<th>Free Parking</th>
<th>Free Parking with Option</th>
<th>No Free Parking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo Driver</td>
<td>70%</td>
<td>56%</td>
<td>49%</td>
</tr>
<tr>
<td>Carpool</td>
<td>15%</td>
<td>19%</td>
<td>20%</td>
</tr>
<tr>
<td>Transit</td>
<td>15%</td>
<td>25%</td>
<td>31%</td>
</tr>
<tr>
<td>Cars per 100 Employees</td>
<td>75</td>
<td>62</td>
<td>56</td>
</tr>
</tbody>
</table>

An important issue with the cash-out option is determining the value of parking. The amount of the parking benefit, in most cases, would simply be the employers' cost of parking (i.e., what the employer would save if the parking space were not provided). If the market value of parking in the area exceeds the cost of spaces provided by the employer, the cash-out value still would be the cost that the employer pays. A potential problem could arise if the employers' costs exceed the market value of parking that is in close proximity to the employment site. In this situation, employees could use the cash to purchase the cheaper parking and pocket the difference; any incentive to use the cash for transit or ridesharing costs would be lost. In this situation, the parking benefit could be set at the market price of parking rather than employer cost. There will also be some cases where an employer has parking lease costs tied or "bundled"
with the office space leases costs in a long-term lease, and the building owner is unwilling to separate parking costs. If employers are not able to sub-lease these spaces to employees of other companies, employers would not be able to offer its employees the cash-out option.

**Tax Treatment of Parking and Transit Subsidies**

The federal government's tax treatment of parking and transit subsidies creates a financial incentive to commute by automobile. Presently, the U.S. Internal Revenue Code has direct tax implications related to parking and transit subsidies for both employers and employees, as shown in Figure 2a. First, employer-paid parking is a tax deductible business expense for the employer. Second, it is a tax-exempt benefit for employees for the value of parking does not exceed $155 per month. When the value of parking exceeds the cap, employees are taxed only on the increment above the $155 per month limit. Practically speaking, however, very few employees are subject to paying any tax (probably none in Florida) because parking costs in most cities are below the cap. The tax code that established this cap also provides a tax exemption for employer-paid mass transit and rideshare benefits, but the tax exempt limit (up to $60 per month) is far below the limit for parking benefits.

The tax-exempt status of employer-paid or -subsidized parking is a major reason that free and inexpensive parking is so prevalent in many U.S. cities. From the employer standpoint, it is less expensive to pay an employee's parking costs than to compensate those costs with a salary increase. Providing compensation of parking costs in the form of a pay raise increases the employee’s base salary, which increases the liability of the employer for social security, workers’ compensation, and pension contributions. The employee would also incur higher taxes and other deductions. For example, the following illustrates the employer cost differences of providing an employee with a $1,000 net benefit through either a salary increase or a paid parking space.

**SALARY INCREASE:**

- Employee Take Home Pay $1,000
  - Federal Tax @ 28% 470
  - Social Security @ 7.65% 128
  - Pension @ 5.0% 84
  Gross Salary $1,682
- Employer Contributions
  - Social Security @ 7.65% $ 128

- Employer Pays for Parking
  - Parking at the Workplace
  - Employee Pays Federal Taxes on That Portion of Parking Cost Which Exceeds $155 per Month

- Employer Reduces Corporate Taxes Because Parking is a Deductible Business Expense

FIGURE 2b. Federal Tax Options.

<table>
<thead>
<tr>
<th>Option</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gov’t Reduces or Eliminates the Tax-Exempt Cap on Parking</td>
<td>Federal Taxes on Parking Increase for Employees</td>
</tr>
<tr>
<td>Gov’t Extends Tax Exemption to Cash-Out Travel Allowance</td>
<td>Increases Cash Received by Employee; Provides Additional Incentive to Change Modes</td>
</tr>
</tbody>
</table>
- Workman’s Comp./Unemployment Ins. @ 3.0% 50
- Pension/Life Ins. @ 5.0% 84
Total Cost to Employer $1,944

**PAID PARKING SPACE**

- Employee Benefit @ $83/month $1,000
Total Cost To Employer $1,000

Revising the tax code to eliminate or reduce the deductibility of parking costs by the employer and reducing the $155 per month tax-exempt cap for employees are two alternatives for lessening the tax code’s incentives for solo driving (Figure 2b). Extending the tax-exemption to the cash-out travel allowance should also improve the effectiveness of this alternative because solo drivers would receive a greater cash incentive. Proponents of the cash-out program stress that the actual receipt of cash by the employee reinforces that parking has a cost and would motivate more commuters to shift from solo driving than an employer’s direct payment of rideshare or transit costs.

While any efforts to change the U.S. Internal Revenue Code will be controversial, concerns over air quality, congestion, and urban sprawl have emphasized the need to address contradictory federal policies. In fact, legislation in the fall of 1992 raised the tax exemption of employer-provided mass transit from $21 per month to the present level of $60 per month and established the $155 per month tax-exempt parking cap. While not eliminating the tax advantages of solo-driving and parking, this legislation signals a change in policy direction that is favorable to transit and ridesharing.

**Parking Location and Supply**

The location and supply of parking is an important local land-use consideration. As shown in Figure 3, parking that serves the downtown can be placed in three locations:

1. in the CBD core,
2. in fringe areas of the CBD, and
3. in remote park-n-ride locations outside of the city.
A number of factors determine the appropriate mix of parking supplied in these locations, including the CBD type (i.e., extensively transit-oriented, intermediate transit use, or predominantly automobile oriented), employment density, population density, and CBD land-use characteristics.

FIGURE 3. Commuter Parking Policy Options

![Diagram of commuter parking policy options]


Based on criteria developed by Weant and Levinson, Florida’s cities are predominantly automobile oriented (i.e., the peak-person accumulation by transit in the CBD is less than 35 percent). In general, the greater the dependency upon the automobile for access to downtown, the greater the supply of downtown parking. This fact is reflected in the supply of downtown parking in Florida’s cities compared to cities in other states. As shown in Figure 4, most of Florida’s cities have higher ratios of downtown parking spaces per employee than other U.S. cities.

Policies affecting the location and supply of parking in a way that enhances transit utilization would involve constraining or reducing the supply of downtown spaces available to commuters, or moving downtown spaces to fringe and remote park-n-ride locations. Florida’s cities are active in this latter area; eleven of the sixteen Florida cities with a Section 9 transit operator have CBD fringe parking (i.e., parking specifically located on the periphery of the CBD in order to reduce downtown congestion and parking needs), and seven cities have park-n-ride facilities served by public transit. For the most part, however, the effect of fringe parking on
FIGURE 4. Downtown Parking Spaces per Employee.

<table>
<thead>
<tr>
<th>Large Cities</th>
<th>Medium Cities</th>
<th>Small Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOTE: Because data are not available, cities 3, 5, 6, 14, 18, 26, 29, 31, 33, 34, 35, 38, 39, 44, 45, 48, and 49 are not shown.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
transit utilization in Florida is extremely limited. With the exception of Orlando, which operates the "FreeBee" shuttle service from fringe parking facilities to the downtown, persons who park in fringe facilities walk to their destinations. Of course, fringe parking can be effective in reducing downtown congestion.

The principal means of controlling the supply of parking is through zoning. Weant and Levinson list several factors that should be considered in setting parking requirements:

- floor space/employee ratios,
- car occupancy rates,
- transit service availability, and
- interaction among downtown land uses.

While most cities will generally specify a minimum number of spaces per unit of new development, this practice has been criticized because it often results in an excess supply of parking. Some developers interviewed for this study stated that lenders may also specify parking requirements for developments in areas where they believe automobile access is essential. They stated, however, that this is not common practice, noting that lenders realize that parking is an added cost to development, which, above a certain point, reduces the financial feasibility of the project.

In order to better control the growth in parking supply, many cities have adopted maximum parking limits or coupled parking maximums with no minimums. Other cities offer developers flexible parking minimums in exchange for actions to support ridesharing programs or transit. Of the four Florida cities examined in this study, Miami and Orlando set minimum and maximum parking requirements, and Orlando further offers developers the opportunity to reduce minimum parking requirements by up to twenty percent in exchange for payments into a parking program trust fund.

Parking location and supply decisions require careful analysis of local conditions. In order for parking to be supportive of transit, opportunities must exist for transit concerns to be incorporated into the local planning process. These opportunities occur during development of local comprehensive plans, transportation plans, community plans, zoning codes, and development
site plans. Oftentimes, however, while the mechanism exists to incorporate transit concerns into local plans, these concerns are not always expressed or are not seriously considered. It is important for local transit agencies to fully exploit opportunities for involvement in these areas.

**Role of Local Governments in Parking Development**

Should local governments develop parking facilities or should development be left to market forces? Local governments decide to develop parking for a variety of reasons. A primary reason is to establish better control over the location and supply of downtown parking so that a certain degree of access to the downtown is maintained. Local governments also view their involvement as necessary in order to create a downtown environment that can compete for development activity. Some local governments develop and manage parking facilities in CBDs primarily to supplement municipal revenue. A goal of revenue maximization, however, is one that is difficult to balance with goals of reducing traffic congestion and air pollution, and supporting transit usage.

**Impacts of Parking Constraints on Economic Development**

The development decision is complex and influenced by a multitude of factors ranging from ease of land assembly to favorable financial arrangements. In this context, the provision of parking does not appear to play a central role in development decisions, but can play a significant supporting role. In an article by Meyer and McShane, risk and expected return on investment were identified as the key factors affecting the private development decision process and the ultimate location of a project. From a developer's standpoint, three ingredients must be present for the success of a new project:

1. economic feasibility,
2. proper location, and
3. the proper timing of the project development.

Two of these ingredients, economic feasibility and location, are affected by municipal parking policies.
Meyer and McShane identified four general types of municipal parking controls that can affect economic development. These controls and more specific parking measures are listed below:

- Control of aggregate parking supply
  - "freeze" on allowed spaces
  - building permit maximums

- Control of parking access
  - preferential parking for carpoolers
  - preferential access for shoppers

- Control of spatial location
  - "fringe" parking/park-n-ride lots
  - zoning requirements

- Control of parking price
  - areawide parking tax
  - rate-structure favoring short-term users

When implemented in isolation these parking measures can have a dramatic effect on the development of new projects and the type of projects an area attracts. For example, a "freeze" on the aggregate supply of parking within a business district could shift long-term parkers into short-term spaces, thereby having a crippling effect upon retail establishments. To avoid this situation, preferential space allocation for short-term parkers should be considered in conjunction with a parking "freeze". This example illustrates the need for comprehensive policies that compensate for corollary effects that may occur with the implementation of an isolated parking policy.

Meyer and McShane further indicated that the effect of parking policies on economic development varies from city to city. Locations that have achieved an undefined "threshold value" of activity density are likely to be attractive for certain kinds of development regardless of whether or not additional parking can be provided to support them. These are likely to be areas where reasonable alternative access modes have been developed in advance or have good prospects of being implemented within a reasonable timeframe. In urban areas where threshold activity density is not found and alternative access opportunities are scarce, supply controls may seriously threaten economic development.
This "threshold value" is not easily defined, but it may be possible to identify characteristics that typify cities that have achieved this value. These characteristics may include the presence and quantities of certain types of development, such as government offices, courthouses, intercity transportation facilities, museums, performing arts centers, sports facilities, universities, retail districts, restaurants, parks, and convention centers.

Whether any of Florida's cities have achieved this threshold value of development activity is uncertain. However, Miami is clearly more developed than other Florida cities and is the only heavy rail city in the state. On the other hand, officials in Miami expressed concern over competition with suburban areas for development activity. Conversations with representatives of the development community in Florida revealed that developers are very sensitive to parking controls. They indicate that transit cannot effectively provide an equivalent level of quality and convenient service as the automobile, and transit service is too volatile and impermanent (e.g., funding is uncertain, and bus routes and schedules can change). In this type of environment, these representatives also indicate that strict regulatory controls involving pricing and supply would certainly have negative consequences on development activity.

**Incentives for Ridesharing**

Policies that increase ridesharing at the expense of single occupant vehicle commuting are viewed as achieving a common purpose as increasing transit usage. Transit and ridesharing generally serve specific markets, but sometimes serve overlapping markets. Ridesharing is very effective for long distance commutes. Transit, on the other hand, is suited for short and long distance commutes to high density areas, such as CBDs or highly developed regional activity centers.

**Complementary Transit and Parking Policies**

This section of the report presents a broad range of complementary transit and parking policies. This list is compiled for the sole reason of presenting the multitude of different policies and discussing their respective pros, cons, and special considerations. These policies are not the recommendations of this study. The study recommendations are presented in the last section of this report. The policies listed below are grouped into broad groups: parking policies and transit policies. These groups are further divided into categories such as pricing, parking taxes, zoning,
land use, and transportation demand management. Twenty policies are presented, most of which were previously discussed in Technical Memoranda 1 and 2. It is important to note that in the field of parking management there are many possible strategies and strategy variant; the strategies presented in this section are those considered to be the most applicable in Florida.

**PARKING POLICIES**

**Pricing**

Pricing is, perhaps, the most direct and immediate way to affect parking demand among those persons who park and pay for parking. Viewed as a consumer good, a basic economic principle dictates that if the price of parking is increased, demand will decrease. Pricing as a parking management strategy can be accomplished in several ways, such as through general rate increases, surcharges, and differential pricing (e.g., rates that favor carpools/vanpools, and short-term parkers). Price increases that earmark the additional revenue to transit and rideshare options are most desirable. Each of these pricing-related policies is discussed below.

- **Parking Rate Increases** - A parking rate increase simply involves raising the price of parking in lots, garages, and on-street.

  *Pros:* For governments that own parking facilities, rate increases will generate additional revenue.

  *Cons:* Raising prices or taxes on parking is controversial. Pricing strategies are difficult to implement in cities where the private sector owns a significant amount of the total supply of parking. If applied in a limited area, price increases may shift demand to other, unintended areas; for example, price increases that discourage long-term commuter parking may shift this demand to neighborhoods or shopping districts. Thus, this strategy requires strong enforcement to ensure success. Parking price increases may also discourage economic development, especially if the price structure is perceived to discourage person trips.

  *Special Considerations:* Unless the vehicle operator or owner pays the increase, a parking price increase will have no effect on demand.

- **Peak Period Surcharge** - This strategy is intended to discourage long-term commuter parking by applying a surcharge to those vehicles that arrive at parking facilities during morning peak hours.
Pros: A surcharge will raise additional revenue for government-owned facilities.

Cons: A surcharge can have similar disadvantages as parking rate increases.

Special Considerations: Similar to a price increase, surcharges will have no effect on demand unless the vehicle operator or owner pays the increase.

• Differential Pricing Programs - Parking rate structures can be developed to encourage or discourage certain types of parkers (e.g., carpools/vanpools, and short-term vs. long-term), or to restrict parking in certain locations.

Pros: This strategy can result in a more efficient use of a city’s parking facilities if the pricing structure results in greater ridesharing and/or turnover.

Cons: Differential pricing can have similar disadvantages as parking rate increases.

Special Considerations: Similar to price increases, differential pricing will have no effect on demand unless the vehicle operator or owner pays for parking.

Parking Taxes

This area covers a broad range of tax strategies. It covers taxes on parking, which can be levied on businesses or persons engaged in the parking business, or taxes applied directly to the users. In addition, this area covers the federal government’s tax treatment of parking benefits.

• Local Tax on Parking Facilities - Under this strategy, a local tax could be applied to persons or businesses engaged in the parking business or directly to the user.

Pros: Parking taxes applied to both publicly and privately owned facilities will generate additional revenue for local governments.

Cons: Taxes are controversial and generally difficult to enact due to public opposition. Parking taxes may shift economic development to areas not covered by the tax.

Special Considerations: Similar to a general price increase, a parking tax will not affect demand if it is absorbed by employers.
• **Income Tax on the Market Value of Parking Benefits Received** - This strategy would treat employer-provided or -subsidized parking as a taxable fringe benefit. Employees are presently taxed on the amount of parking benefit that exceeds $155 per month, but because parking costs in most cities are below this amount, few persons are required to pay any tax.

  **Pros:** Confines tax to recipients of parking benefits. Raises federal revenue.

  **Cons:** Since parking is a commonly accepted employee fringe benefit, this tax would be extremely unpopular with employers and employees and would probably encounter significant political resistance. Administration would be difficult because the market value of parking may not be easy to measure, is subject to change, and can vary greatly by location. The tax may discourage development in CBDs where parking costs are more expensive.

  **Special Considerations:** Requires revision in the U.S. Internal Revenue Code.

• **Reduction of Cap on Tax-Exempt Parking Subsidy** - This policy would reduce the $155 per month tax-exempt cap on employer-subsidized parking.

  **Pros:** This reduction would put the tax-exempt status of parking on a more even playing field with transit (which has a cap of $60 per month).

  **Cons:** This reduction would encounter significant political resistance and may discourage development in CBDs where parking costs exceed the tax-exempt cap.

  **Special Considerations:** Requires revision in the U.S Internal Revenue Code.

• **Elimination of Income Tax Deductibility for Employers** - The cost of parking that employers provide to employees is currently treated as a tax deductible business expense (i.e., it lowers employers taxable income and tax liability).

  **Pros:** Eliminating this deduction would reduce employers' financial incentive to provide parking as a fringe benefit. It would also raise federal revenue.

  **Cons:** This strategy would also encounter significant political resistance and may discourage development in CBDs where parking costs are more expensive.
Special Considerations: Requires revision in the U.S. Internal Revenue Code.

Zoning

Zoning ordinances affect the supply and location of parking. Types of ordinances include parking maximums, flexible requirements based on developer action to support public transit and ridesharing, a parking freeze, and preferential parking for carpools and vanpools.

- **Parking Maximums** - This measure establishes a maximum number of on-site parking spaces for new developments in order to control the supply of downtown parking.

  **Pros:** Parking maximums can control parking supply in growing areas.

  **Cons:** Maximums could discourage new development if the area is highly automobile-dependent and if transportation alternatives are not, or are perceived not to be, available.

  **Special Considerations:** Requires a comprehensive analysis of parking demand. Requires adequate transportation alternatives.

- **Flexible Parking Requirements** - This measure allows reductions in parking requirements for new developments if the project is easily accessible by transit or if the developer undertakes actions to promote transit and ridesharing.

  **Pros:** Provides developers with an option rather than a requirement.

  **Cons:** Enforcement of developer obligations is difficult.

  **Special Considerations:** The success of flexible requirements will depend on the availability of alternative travel modes. Reliable transit must be available, and the possibility of carpools must be apparent.

- **Parking Freeze** - This policy sets a ceiling on the aggregate supply of parking spaces within a specific area.

  **Pros:** Prohibits net increase in parking spaces, which allows land-area to be used for other establishments.
**Cons:** A "freeze" may discourage new development in the affected area. Further, if parking is already limited, a "freeze" may push long-term parkers into short-term spaces, which limits access to retail uses.

**Special Considerations:** This type of policy works best in high-density areas where downtown congestion and parking are major issues.

**Transit Policies**

**Pricing**

- **Link Parking Rates with Transit Fare Increases** - This strategy involves raising parking rates when transit fares are increased.

  **Pros:** Maintains basic price relationship between parking and transit (i.e., it avoids creating incentives to drive when transit fares increase).

  **Cons:** This policy would be controversial because it provides no incentive for transit agencies to operate cost effectively.

  **Special Considerations:** Unless the vehicle operator or owner pays the increase, the parking price increase will have no effect on demand.

**Zoning**

- **Preferential Parking for Carpools/Vanpools** - This parking measure reserves the most attractive and the most easily accessible parking spaces for high-occupancy vehicles.

  **Pros:** If this measure induces commuters to rideshare, parking demand, automobile congestion, and total vehicle miles traveled would decrease.

  **Cons:** The enforcement of preferential parking may increase administrative costs for previously unattended lots.

  **Special Considerations:** Preferential parking programs are more effective when implemented in an area with a parking shortage near the employment center, and when the spaces available offer a clear advantage over those available to solo drivers. Effective enforcement of the measure is essential for it to be successful.
Land Use

This area involves strategies to remove parking spaces from the downtown in order to make land available for other uses and to reduce traffic congestion downtown.

- **Park-and-Ride Facilities** - These facilities are located on the periphery of the city and are served by local public transportation. They are usually located near densely traveled corridors leading into the CBD.

  **Pros:** This type of facility helps to reduce CBD auto congestion and long-term parking. It offers the services of public transportation to those living in low density areas, thereby increasing transit ridership. The cost of providing parking decreases because land is cheaper in outlying areas than in the CBD.

  **Cons:** A park-and-ride facility is an added cost to transit. Unfortunately, the most successful sites are immediately adjacent to freeways where land costs are highest in suburban locations.

  **Special Considerations:** Park-and-ride facilities are most successful when the service area experiences considerable highway congestion during peak periods, when the service area has a high demand for CBD travel, when downtown parking rates are high, and when the supply of downtown parking is limited.

- **Joint-Use Park-and-Ride Facilities** - This strategy involves locating park-and-ride facilities in mixed-use developments that contain services commuters would normally use during the day, such as child day care, shopping, and banking.

  **Pros:** Reduces solo driving by eliminating some of the need to make personal before-work, mid-day, and after-work trips. Helps to reduce CBD auto congestion and the need for long-term parking. The cost of the facility is shared with other establishments within the facility.

  **Cons:** If businesses within the joint-use facility fail, the facility will be less attractive for commuters.

  **Special Considerations:** The transit agency must closely evaluate the above stated risk.
Transportation Demand Management (TDM)

TDM includes a myriad of complementary transit and parking measures with the common goal of reducing solo driving.

- Transportation Management Associations (TMAs) - TMAs are formed in urbanized areas or concentrated developments by public and private entities to promote TDM initiatives among participating employers. These initiatives include organizing carpools and vanpools, and assisting employers in establishing flextime or telecommuting programs.

  Pros: TMAs are effective in promoting and developing commute alternatives and incentive programs including many parking treatments.

  Cons: The membership fees are an added cost to employers.

  Special Considerations: To be successful, TMAs need strong support from local governments and businesses.

- Transportation Allowance (Cash-Out Option) - This approach requires that employers who offer free or subsidized parking must also offer the option to receive, in lieu of parking, the employer’s cost of the parking, either as a taxable cash commute allowance or as a mass transit or ridesharing subsidy.

  Pros: Studies have estimated that a cash-out program could significantly reduce single occupant automobile commute trips. A transportation allowance provides employees with a cash alternative to subsidized parking. Because employees receive the allowance as a taxable cash payment, additional federal revenue would be raised.

  Cons: Employers’ administrative costs may increase.

  Special Considerations: If building owners are not willing to separate parking lease costs from office lease costs, employers would have to sub-lease spaces to employees of other companies.
Multi-Modal Transportation Pass - A multi-modal transportation pass would enable commuters to interchangeably utilize parking, transit, and vanpooling. The pass would entitle a person to use any mode to and from work at its monthly discounted rate. In this way, a person who normally purchases monthly parking can use transit on random days without incurring additional costs for this second mode. This eliminates the need for commuters to drive every day in order to make the initial monthly investment in parking cost effective. Commuters could use a debit-type card (i.e., a card with magnetically encoded user information) and purchase in advance, or be billed monthly, for parking, transit, or vanpool costs.

Alternatively, the pass program could work in conjunction with the travel allowance program. Employees would be given a debit card and a monthly transportation allowance. Employees who solo commute and park every day would use the allotment and be required to "pay out" some of the expenses at the end of the month. Those employees who use transit or rideshare several times a month break even, and those using alternative modes more frequently would receive cash back at the end of the month. A demonstration project on this concept is currently underway in southern California. The project is expected to be completed in April 1994.

Pros: Promotes the use of alternative transportation modes. The pass is a benefit that appeals to small businesses.

Cons: Start-up could be complicated.

Special Considerations: A central billing and processing facility would need to be established. Outlets to buy passes, tickets, and tokens would also need to be established. Coordination between local transit and local parking agencies is required.

RECOMMENDATIONS

This section of the report presents the recommended complementary parking and transit policies and an action plan. The recommendations involve pricing, parking taxes, zoning, land use, and TDM. The action plan identifies what actions are necessary by the various levels of government--local, state, and federal. These actions are described within the recommended policies below and are also shown in Table 3 at the end of the section.
As discussed in the issues section of this report, the coordination difficulties experienced by transit are not so much from the lack of coordination opportunities, but rather from the relatively weak negotiating strength of transit. Because of Florida's development patterns, the financial constraints of transit, and employer-paid parking, transit cannot effectively compete with the automobile. As a result, the automobile is often favored in the formulation of downtown parking policies.

The recommended policies contained in this section are included because they are most suited for Florida's urban areas. These policies do not include drastic parking management measures because such measures would most certainly jeopardize development opportunities in these areas, which would further encourage dispersed, suburban development. Perhaps the most important recommendations involve countering the effects of employer-paid parking through a transportation allowance program. Properly implemented, this program could significantly shift solo drivers to ridesharing and transit with relatively little effort. The FDOT should, accordingly, place high priority on implementing this recommendation.

**PARKING POLICIES**

**Pricing**

- **Differential Pricing** - FDOT should recommend that local governments consider pricing strategies that provide incentives for carpool and vanpool, and discourage commuters who drive alone from parking in the central core of CBDs.

**Parking Taxes**

- **Reduce Cap on Tax-Exempt Parking Subsidy** - FDOT should assist in any national efforts to reduce the $155 per month cap on employer-subsidized parking.

**Zoning**

- **Require Flexible Parking for New Developments** - FDOT should coordinate with the Department of Community Affairs (DCA) in an effort to encourage those Florida cities with only parking minimums to adopt flexible parking maximums. Flexibility would be based on developer support of transit and ridesharing programs.
Land Use

- Discourage Local Government Development of CBD Parking For the Primary Purpose of Revenue Generation - Although revenue from municipal parking facilities may be an important revenue source for cities, it is difficult to balance the goals of revenue maximization with goals of reducing traffic congestion, improving air quality, and supporting public transit. The FDOT should incorporate this recommendation in the training program described under Transit - Land Use Policies.

TRANSIT POLICIES

Taxes

- Promote Federal Tax-Exemption of Travel Allowances - FDOT should coordinate with the Governor’s Office, the state’s transit agencies, and other groups and join existing efforts to secure changes in the Internal Revenue Code that would make cash travel allowances tax-exempt.

Zoning

- Require Preferential Parking for Shared-Ride Vehicles - FDOT should coordinate with DCA in an effort to encourage Florida cities to revise parking requirements of commercial/office developments to include minimum percentages of designated carpool/vanpool spaces.

Land Use

- Develop and Promote Joint-Use Park-n-Ride Facilities - FDOT should seek opportunities to place or participate with the private sector in developing park-n-ride facilities in suburban sites that contain uses that normally generate before-work, mid-day, and after-work trips. Examples of uses include child day care, pharmacies, grocery stores, banks, and other retail.

- Encourage Transit Authorities to seek Greater Involvement in the Local Land Use Planning Process - Coordination between land use and public transit can occur during development of comprehensive plan policies, zoning ordinances, the review of
building/site plans, and in siting public facilities and institutions (especially those that are patronized by the transit dependent) in areas served by transit. Yet, participation does not guarantee that public transit's interests are considered; transit officials must be active lobbyists in this process. High-level transit officials who are knowledgeable in land use should represent the transit authority in the land use planning process.

- **Develop Guide and Training Program on the Relationship Between Land Use and Public Transportation** - The FDOT should develop a guide and training program, to be conducted by MPOs for their board members, on public transportation and land use. A similar guide and training program was developed by the Snohomish County Transportation Authority (Washington) in 1989. The purpose of the guide was to offer "suggestions that local jurisdictions, developers, community groups, and land owners working with their local transit operators can use to locate and design activities and facilities and change trip-making behaviors so that options to autos can become realistic". The Snohomish County effort could serve as a model for Florida’s program.

**Transportation Demand Management**

- **Implement Employer Travel Allowance Demonstration Project** - FDOT should develop, seek federal funding for, and manage a project involving selected major employers in several Florida cities. Local TMAs could identify candidate employers for the project and could assist the employers in implementing the program. FDOT should monitor the results of the program.

- **Adopt Local Trip Reduction Ordinances With Travel Allowance Feature** - Public ordinances requiring one strategy are not always politically feasible. Flexibility in working with the private sector is important. Therefore, FDOT should promote the use of a travel allowance program as one option within locally adopted trip reduction ordinances.

- **Multi-Modal Transportation Pass Program** - Since this is a new concept, the FDOT should evaluate its possible implementation and consider developing a demonstration program in a city that owns a significant amount of downtown parking, such as Miami or Orlando.
• Support Strengthening Commuter Assistance Programs and, Where Appropriate, Formation of a TMA in Those Urbanized Areas Currently Without One - The Florida TMAs have been largely successful in, at least, the initial education of commuters and employers of alternative commute options. The ability of these TMAs to cause mode shifting has been made difficult by a combination of factors, such as free and employer-paid parking, and an oversupply of parking in CBDs due to lower than expected development (which is related to the recession and continued suburban development). The FDOT should continue supporting local efforts to develop commuter assistance programs and the formation of TMAs in urbanized areas currently without one.
Table 3. Action Plan.

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Local Action</th>
<th>State Action</th>
<th>Federal Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differential Pricing</td>
<td>Florida cities should adopt pricing strategies that provide incentives for carpooll and vanpools, and discourage long-term parking in the central core of CBDs.</td>
<td>FDOT should recommend that local governments adopt pricing strategies that provide incentives for carpooll and vanpools, and discourage long-term parking in the central core of CBDs.</td>
<td>No action required.</td>
</tr>
<tr>
<td>Promote Federal Tax-Exemption of Travel Allowances</td>
<td>Local governments should assist the state in their efforts to change the Internal Revenue Code.</td>
<td>FDOT should coordinate with the Governor's Office, the state's transit agencies, APTA and other groups to secure changes in the Internal Revenue Code that would make cash travel allowances tax-exempt.</td>
<td>Revise the Internal Revenue Code to exempt travel allowances from federal taxes.</td>
</tr>
<tr>
<td>Reduce Cap on Tax-Exempt Parking Subsidy</td>
<td>Local governments should assist in national efforts.</td>
<td>FDOT should assist in any national efforts.</td>
<td>Reduce the $155 per month tax-exempt cap on employer-subsidized parking.</td>
</tr>
<tr>
<td>Require Flexible Parking Minimums and Maximum Parking Requirements for New Developments</td>
<td>Florida cities should revise parking requirements for commercial/office developments to reflect maximums and flexible minimums.</td>
<td>FDOT should coordinate with DCA in an effort to encourage those Florida cities with parking minimums only to adopt flexible parking minimums and maximums. FDOT should also provide technical support in defining appropriate minimums and maximums for cities that request assistance.</td>
<td>No action required.</td>
</tr>
</tbody>
</table>
Table 3. (continued).

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Local Action</th>
<th>State Action</th>
<th>Federal Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Require Preferential Parking for Shared-Ride Vehicles</td>
<td>Florida cities should revise parking requirements for commercial/office developments to include minimum percentages of designated carpool/vanpool spaces.</td>
<td>FDOT should coordinate with DCA in an effort to encourage Florida cities to revise parking requirements.</td>
<td>No action required.</td>
</tr>
<tr>
<td>Develop and Promote Joint-Use Park-and-Ride Facilities</td>
<td>Local governments should encourage private sector participation in the development of park-and-ride facilities.</td>
<td>FDOT should seek opportunities to place or participate with the private sector in developing park-and-ride facilities in suburban sites that contain uses that normally generate before-work, mid-day, and after-work trips.</td>
<td>No action required.</td>
</tr>
<tr>
<td>Discourage Local Government Development of CBD Parking For the Primary Purpose of Revenue Generation</td>
<td>Local governments should avoid developing parking solely to generate revenue.</td>
<td>FDOT should discourage local governments from developing CBD parking solely for revenue generation.</td>
<td>No action required.</td>
</tr>
<tr>
<td>Encourage Transit Authorities to Seek Greater Involvement in the Local Land Use Planning Process</td>
<td>Transit agencies should become more involved in the process.</td>
<td>FDOT should encourage transit authorities to seek greater involvement in the local land use planning process</td>
<td>No action required.</td>
</tr>
<tr>
<td>Develop Guide and Training Program on the Relationship Between Land Use and Public Transportation</td>
<td>MPOs should conduct training program for their board members.</td>
<td>FDOT should develop guide and training program.</td>
<td>No action required.</td>
</tr>
</tbody>
</table>
Table 3. (continued).

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Local Action</th>
<th>State Action</th>
<th>Federal Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement Travel Allowance (Cash-Out) Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Implement Employer Travel Allowance Demonstration Project</td>
<td>Local TMAs should identify candidate employers for the project and assist the employers in implementing the program.</td>
<td>FDOT should develop, seek federal funding for, and manage this project involving selected major employers in several Florida cities. Further, FDOT should monitor the results of the program.</td>
<td>No action required.</td>
</tr>
<tr>
<td>• Adopt Local Trip Reduction Ordinances with Travel Allowance Feature</td>
<td>Local governments should adopt trip reduction ordinances and consider including a travel allowance feature.</td>
<td>Based on favorable results from the demonstration project, the FDOT should embark on a campaign to educate local officials of the benefits of a travel allowance program and assist them in developing trip reduction ordinances with this feature.</td>
<td>No action required.</td>
</tr>
<tr>
<td>Offer Multi-Modal Transportation Passes</td>
<td>Local transit agencies, parking authorities, and local governments should consider implementing this type of pass based on the results of FDOT's evaluation.</td>
<td>FDOT should evaluate its possible implementation and consider developing a demonstration program in a major city such as Miami or Orlando that owns a significant amount of downtown parking.</td>
<td>FTA should provide a demonstration grant for this program.</td>
</tr>
<tr>
<td>Support Formation of a TMA in Those Urbanized Areas Currently Without One</td>
<td>Local governments within urbanized areas should support the formation of TMAs.</td>
<td>FDOT should encourage the formation of TMAs in those urbanized areas currently without one.</td>
<td>No action required.</td>
</tr>
</tbody>
</table>
LIST OF REFERENCES


—. "Whither Parking in the City Center?" Transportation Research Record 957 (1984): 77-79.


LIST OF CONTACT PERSONS

Albany, NY
Capital District Regional Planning
214 Canal Square
Schenectady, NY  12305
(518)393-1715

Leonard Fox
Albany Parking Authority
Port Albany, NY  12202
(518)434-8886

Baltimore, MD
Gerald Neily
Department of Planning
City of Baltimore
417 East Fayette Street, 8th Floor
Baltimore, MD  21202
(410)396-5924

Eleanor Krell
Regional Council of Development
601 N. Howard Street
Baltimore, MD  21201
(410)333-4881

Baton Rouge, LA
Jeff Fluhr
Planning Department
227 Florida Street
Baton Rouge, LA  70801
(504)389-5520

Boston, MA
Joseph G. Beggan
Director
Department of Policy and Planning
Boston Transportation Department
One City Hall Plaza, Room 721
Boston, MA  02201
(617)725-4680

Boston Redevelopment Agency
One City Hall Square
Boston, MA  02201-1007
(617)722-4300

Bradenton
Ruth Seewer
Planning Department
City of Bradenton
Caller Service 25015
Bradenton, FL  34206-5015
(813)748-0800  x205

Burlington
Mark Eldridge
Planning and Zoning Department
City of Burlington
135 Church Street
Burlington, VT  05401
(802)865-7188

Chicago
Fred Detters
Planning and Development Department
City of Chicago
121 N. LaSalle Street
Chicago, IL  60602
(312)744-2945

Jim Mulqueey
Chicago Transit Authority
P.O. Box 3555
Chicago, IL  60654
(312)664-7200

Dallas
John Brunk
Assistant Director of Transportation
Department of Transportation, Dallas
1500 Marilla Street
Room 5C South
Dallas, TX  75201
(214)670-5081

Dawrence White
Data Analyst II
Dallas Area Rapid Transit Authority
601 Pacific Avenue
Dallas, TX  75202
(214)748-6338
Daytona
Russell Hooper
Public Works Director
City of Daytona Beach
P.O. Box 2451
Daytona Beach, FL 32115-2451
(904)258-3171

Denver
Bill Bulthal
Regional Transportation District
1600 Blake Street
Denver, CO 80202
(303)628-9000

Des Moines
Jim Thompson
Traffic and Transportation Department
City of Des Moines
602 First Street
Des Moines, IA 50309-1881
(515)283-4973

Ft. Lauderdale
Tom McCormick
Parking Systems Manager
City of Ft. Lauderdale
145 East Lasolas Street
Ft. Lauderdale, FL 33301
(305)764-2412

Chris Ren
Planning Department
City of Ft. Lauderdale
100 N. Andrews Avenue
7th Floor
Fort Lauderdale, FL 33301
(305)761-5865 (desk)
(305)761-5258 (receptionist)

Kathy L. Hain
Corporate and Community Liaison
Tri-County Commuter Rail Authority
305 South Andrews Avenue
Suite 299
Ft. Lauderdale, FL 33301
(305)728-8512

Ayub Zaid
Short Range Transportation Projects
Office of Planning
Broward County
115 S. Andrews Avenue Room 329
Ft. Lauderdale, FL 33301
(305)357-6664

John Wachtel
Assistant Trolley Manager
Downtown Development Authority
200 S. Andrews Avenue, Suite 11
Fort Lauderdale, FL 33301
(305)463-6574

Ft. Myers
Maureen Lund
Planner
Planning Department
City of Ft. Myers
P.O. Drawer 2217
Ft. Myers, FL 33902
(813)332-6785

W. Avera Wynne
Planner
Planning Department
City of Ft. Myers
P.O. Drawer 2217
Ft. Myers, FL 33902
(813)332-6787

Don Paight
Director
Downtown Redevelopment Agency
City of Ft. Myers
2310 Edwards Drive
Fort Myers, FL 33901
(813)334-6626

Harriet Moskat
Assistant Director
Downtown Redevelopment Agency
City of Ft. Myers
2310 Edwards Drive
Fort Myers, FL 33901
(813)334-6626
Chris Lefferts  
Lee County Transit  
10715 East Airport Road  
Fort Myers, FL  33907  
(813)936-6091

**Gainesville**  
Brian Kanely  
Traffic Engineering  
City of Gainesville  
P.O. Box 490, MS28  
Gainesville, FL  32602  
(904)334-2130

**Hartford**  
Jim Mayer  
Transportation Engineering  
City of Hartford  
525 Main Street  
Hartford, CT  06103  
(203)722-6215

Kathy Butler  
Downtown Council  
250 Constitution Plaza  
Hartford, CT  06103  
(203)728-3089

**Houston**  
Carrie Hackett  
Metro. Transit Authority of Harris County  
P.O. Box 61429  
Houston, TX  77208  
(713)739-4000

**Huntsville, AL**  
Planning Department  
City of Huntsville  
P.O. Box 308  
Huntsville, AL  35804  
(205)532-7353

Transportation Department  
City of Huntsville  
100 Church Street  
Huntsville, AL  35801  
(205)532-7682

**Jacksonville**  
Jerry Allen  
Public Parking Bureau  
231 East Forsythe Street  
Room 450  
Jacksonville, FL  32202  
(904)630-1124

**Knoxville**  
Carol Swagger  
Transportation Coordinator  
Knoxville Planning Commission  
Suite 403  
City County Building  
400 Main Street  
Knoxville, TN  37902  
(615)521-2500

David White  
Knoxville Transit  
1135 Magnolia Avenue  
Knoxville, TN  37917  
(615)637-3000

**Lakeland**  
Lorenzo Thomas  
Community Development Department  
City Hall  
228 S. Massachusetts Avenue  
Lakeland, FL  33801  
(813)499-6011

**Madison**  
Duane Hinz  
Parking Manager  
City of Madison  
215 Martin Luther King, Jr. Blvd.  
Suite 100  
P.O. Box 2986  
Madison, WI  53701-2986  
(608)266-4761

Madison Metropolitan Transit System  
1101 East Washington Avenue  
Madison, WI  53703  
(608)266-4904
Melbourne
Planning & Zoning Department
City of Melbourne
900 E. Strawbridge Ave.
Melbourne, FL 32901
(407)727-2900

Miami
Dan Rosemond
Director of On-Street Operations
Department of On-Street Parking
City of Miami
190 N.E. 3rd Street
Miami, FL 33132
(305)373-6789

Mary Beth Busitil
Department of Off-Street Parking
City of Miami
190 N.E. 3rd Street
Miami, FL 33132
(305)373-6789

Terry McKinley
Chief, Performance Audit
Metro-Dade Transit Agency
Metro-Dade Center
111 N.W. 1st Street, Suite 910
Miami, FL 33128-1999
(305)375-5359

Mario Garcia
Chief Transit System
Metro-Dade Transit Agency
Metro-Dade Center
111 N.W. 1st Street, Suite 910
Miami, FL 33128-1999
(305)637-3756

Frank F. Baron, III
Principal Planner
Metropolitan Planning Organization
Metropolitan Dade County
Metro-Dade Center
111 NW 1st Street, Suite 910
Miami, FL 33128
(305)375-4507

Adam Lukin
Urban Design Coordinator
Downtown Development Authority
1818 One Biscayne Tower
Miami, FL 33131
(305)579-6675

Katia Hirsh
Downtown Development Authority
1818 One Biscayne Tower
Miami, FL 33131
(305)579-6675

Clark Turner
City Planning Department
275 N.W. Second St.
Miami, FL 33128
(305)579-6086

Sergio Rodriguez
Director
City Planning Department
275 N.W. Second St.
Miami, FL 33128
(305)579-6086

Minneapolis
Susan Widmer
Parking and Skyway Engineer
Department of Public Works
City of Minneapolis
203 City Hall
Minneapolis, MN 55415-1390
(612)673-2597

Metropolitan Transit Commission
560 6th Avenue North
Minneapolis, MN 55411
(612)349-7400

Montgomery County
Barbara Barker
Planning Specialist III
Division of Parking
8757 Georgia Avenue, Suite 903
Silver Spring, MD 20910
(301)565-7670
Jenny Leary
Silver Spring TMA (Montgomery County)
8601 Georgia Avenue
Suite 703
Silver Spring, MD 20910
(301)565-5870

New Orleans
Charles Kirkland
Senior City Planner
1300 Perdido Street
Room Nine West
City Hall
New Orleans, LA 70112
(504)565-7000

Valerie Robinson
Regional Transit Authority
101 Dauphine @ Canal
New Orleans, LA 70112
(504)569-2679

Orlando
Scott Collier
Parking Supervisor
Parking Bureau
City of Orlando
53 W. Central Boulevard
Orlando, FL 32801
(407)246-2154

Samuel G. Vennero
Bureau Chief
Parking Bureau
City of Orlando
53 W. Central Boulevard
Orlando, FL 32801
(407)246-2154

Robert Jones
City Planner
Planning and Development Department
City of Orlando
400 S. Orange Avenue
Orlando, FL 32801
(407)246-2175

Nan Moore
Downtown Orlando TMA
100 S. Orange Avenue, 7th Floor
Orlando, FL 32801
(407)839-1630

Daisy Staniszkis
Assistant Director
Downtown Development Board
100 S. Orange Ave., 9th Floor
Orlando, FL 32801
(407)246-2555
Clerk’s Office (407)246-2251

Philadelphia
John Hack
Planning Department
City of Philadelphia
1515 Market Street
17th Floor
Philadelphia, PA 19102
(215)686-7071

Phoenix
Fred Osgood
Planning Department
City of Phoenix
125 East Washington
Phoenix, AZ 85004
(602)262-7131

Pittsburgh
Jeffrey T. Leber
Parking Authority
City of Pittsburgh
232 Boulevard of the Allies
Pittsburgh, PA 15222-1616
(412)456-2770

Portland
Sean Furguson
Tri-County Metro. Transportation District
4012 S.E. 17th Avenue.
Portland, OR 97202
(503)238-4915

Raleigh, NC
Ken Maness  
Planning Department  
City of Raleigh  
222 W. Hargett St.  
Raleigh, NC 27602  
(919)890-3125

St. Petersburg  
Michael Dove  
Assistant Planning Director  
City of St. Petersburg  
P.O. Box 2842  
St. Petersburg, FL 33731  
(813)893-7879

San Francisco  
Jerry Robbins  
Department of Parking and Traffic  
City and County of San Francisco  
25 Van Ness Avenue, Suite 880  
San Francisco, CA 94102  
(415)554-9818

Bay Area Rapid Transit  
800 Madison Street  
Oakland, CA 94604  
(510)464-6000

Sarasota  
Dan Martis  
Superintendent of Parking Management  
1312 Second Street  
Sarasota, FL 34236  
(813)954-4182 (desk)

Zoning Department  
City of Sarasota  
P.O. Box 1058  
Sarasota, FL 34230  
(813)954-4127

Planning & Development Department  
City of Sarasota  
P.O. Box 105A  
Sarasota, FL 34230  
(813)954-4195

Savannah  
Eddie Tyler  
Parking Services  
City of Savannah  
P.O. Box 2101  
Savannah, GA 31498  
(912)651-6467

Seattle  
Brian Kemper  
Manager of Traffic Control Programs  
Traffic Engineering Department  
City of Seattle  
600 Fourth Avenue  
Room 708  
Seattle, WA 98104-1879  
(206)684-5096

Tallahassee  
Jihad El Eid  
Traffic Engineering  
City of Tallahassee  
City Hall  
2nd Floor  
300 South Adams Street  
Tallahassee, FL 32301  
(904)599-8261

Dave Bright  
Senior Transportation Planner  
Tallahassee-Leon County Planning Dept.  
City Hall  
300 South Adams Street  
Tallahassee, FL 32301  
(904)599-8600

Tony Biblo  
Land Use Planner  
Tallahassee-Leon County Planning Dept.  
City Hall  
300 South Adams Street  
Tallahassee, FL 32301  
(904)599-8600
Tampa
Gene Bressler
Parking Manager
Parking Division
Department of Public Works
107 N. Franklin Street
Tampa, FL 33602
(813)223-8177

Richard Keeley
Off-Street Supervisor
Parking Division
Department of Public Works
107 N. Franklin Street
Tampa, FL 33602
(813)223-8177

David Houseman
Transportation Division
City of Tampa
306 E. Jackson, 4E
Tampa, FL 33602
(813)223-8048

Washington, D.C.
Larry Levin
Washington Metro Area Transit Authority
600 Fifth Street, N.W.
Washington, D.C. 20001
(202)962-1251

Metro Washington Council of Governments
777 North Capitol Street
Washington, D.C. 20002-4201
(202)962-3256

West Palm Beach
Frank Del Monaco
Parking Systems Director
P.O. Box 1469
West Palm Beach, FL 33402
(407)659-8060