Four small and medium-sized New England cities were studied to determine the role played by transportation improvements in efforts to revitalize downtown areas. Results indicate that ease of access and parking are particularly important to the revitalization of the central business districts of small and medium-sized cities.

A complex of economic and social forces has resulted over the past several decades in the decline of the central areas of most of the nation's older cities. Concern about this decline has led many communities to undertake efforts to renew their downtown districts. Typically, these efforts focus on improving the physical environment of the central business district (CBD) in order to increase activity and promote economic development in the core. CBD revitalization generally involves a mix of public and private investment and almost invariably includes some measures to improve access to and circulation within the district.

The importance of transportation improvements in downtown renewal is, even after a considerable history of analysis and debate, a matter of conjecture. The common conclusion is that good transportation is "a necessary but not sufficient condition" for economic revitalization. Most studies of the impact of transportation improvements in downtown areas have been concerned with large urban areas and have concentrated on impacts immediate to a given project (1,2). For example, the effect on retail sales of the creation of an automobile-restricted zone (ARZ) is usually analyzed by studying changes in retail sales within the ARZ. The possibility that sales increases in the improved area are matched by decreases elsewhere in the community is rarely explored.

Consideration of these broader economic impacts, appropriate in every instance, is particularly critical in the case of smaller communities because of scale effects. In larger cities, the impacts of closing one or two downtown streets or introducing an express bus service are likely to be absorbed quickly by the mass of surrounding economic activity. In contrast, such changes in the CBD of a smaller city will tend to have a more significant and widespread effect.

Despite their potential importance, downtown revitalization efforts in small and medium-sized cities have received relatively little critical attention. These cities are making investments of varied kinds, most of which are intended to support the traditional functions of the CBDs as places for business, services, culture, recreation, and meetings. Transportation investments have been a major component of these revitalization efforts. Such investments include improvements in traffic operation, signalization, traffic restraint, transit systems, paratransit operations, and parking. In some instances, transporation changes involve building highways and arterials to provide easier access to the CBD.

The scope of this paper is limited to an analysis of downtown revitalization efforts in small and medium-sized cities, with special emphasis on the role of transportation improvements in these efforts. The vehicle for this analysis is a set of case studies of four New England cities—Portland, Maine; Springfield, Massachusetts; Hartford, Connecticut; and Burlington, Vermont (Figure 1).

**SELECTION OF CASE STUDY SITES**

Each of the cities selected for this study has, during the past decade or so, undertaken revitalization of the CBD and has included various transportation improvements in the revitalization program. Table 1 gives the major improvements undertaken by each city.

Portland, Maine (population 65,000), is a major...
The initial step in each case study was to define the characteristics of the CBD and to review the city's goals and objectives for its downtown: Did the city want to expand a specific sector of its downtown? Was the city aiming to increase the variety of retail businesses in the CBD? Or did the city seek to maintain the status quo and simply protect its downtown against possible decline? Included in this first step was an examination of the city's plans for land use, transportation, and economic development.

To examine the overall progress each city had made in terms of its CBD objectives, all actions the city had taken in the last 20 years were identified. These actions included both transportation and nontransportation investments. In addition, population and retail trade data gathered from the Census of Population and Retail Trade were analyzed for the period from 1960 to 1980 for each city to obtain an overall picture of the city's growth and economic vitality.

Informal discussions were held with local merchants and developers. These discussions focused on the importance of downtown transportation improvements and their impacts on developers' decisions to invest in downtown and retail sales. Retailers were asked questions about what impacts, if any, specific transportation improvements had on retail sales. Similarly, the interviews with local developers focused on recent private developments downtown and to what extent transportation improvements affected their location decisions.

Civic leaders, such as city managers, planners, and transportation officials, were asked about the overall direction in which the city had been moving and specific plans that had been implemented to make the downtown more attractive to investors and retailers. Findings and conclusions drawn mainly from discussions with developers, retailers, and local officials are presented in the following section.

CASE STUDY FINDINGS

Portland, Maine

As noted previously, the starting point for Portland's revitalization efforts was the realization by the city's leaders in the mid-1960s that a good transportation linkage between the regional transportation system and the business district was essential for the continued viability of the CBD. Until I-295 was built with several exits in the periphery of downtown, the city was virtually bypassed by the major highway; the freeway system was a major factor in the local economy. Accessibility to Portland's downtown and its connection to the region was an important issue. With the use of public funds for transportation improvements, the Franklin Street construction and the Maine Way pedestrian-oriented projects were implemented to increase accessibility. In addition, new parking garages were built and signalization improvements were introduced to make the downtown more attractive to automobile owners; at the same time transit service was expanded.

These transportation improvements were facilitated or initiated under the leadership of a former city manager of Portland. Although these improvements were not undertaken solely for the benefit of downtown commercial interests, and cannot be linked to specific downtown private investments, they appear to be part of a conscious plan on the part of the city's planners to make Portland accessible and competitive.

The consequences of this long-term plan are clearly visible in Portland. Today downtown Portland is a booming commercial, retail, and cultural center. These improvements have led to the development of dual retail centers in the city along Congress

TABLE 1 Case Study Sites: CBD Redevelopment Projects

<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portland, Maine</td>
<td>65,000</td>
<td>Pedestrian-oriented street improvements, parking garages, private office building investment, urban park, museum and hotel renovations</td>
</tr>
<tr>
<td>Springfield, Mass.</td>
<td>150,000</td>
<td>Retail-office-hotel complex, civic center, private office building investment, parking facilities, ARZs, reconstruction of major shopping street</td>
</tr>
<tr>
<td>Hartford, Conn.</td>
<td>136,000</td>
<td>Retail-office complex, civic center, private office building investment, Downtown Hartford Transportation Project</td>
</tr>
<tr>
<td>Burlington, Vt.</td>
<td>39,000</td>
<td>Indoor retail mall, ARZ-major shopping street transit improvements, waterfront development</td>
</tr>
</tbody>
</table>

Note: See Figure 1 for location in New England region.
Street—the original "Main Street"—and in the Old Port area. Revitalization in the Old Port area consisted not only of new construction but of rehabilitation of the older French and Italian style buildings as well, which maintained the European flavor of the area.

Of the set of transportation improvements affecting downtown, only one assumed any direct significance in the view of the real estate and business community. That improvement is off-street parking. The city's commitment to meeting the parking needs of major private office developments has led to substantial private investment downtown. Retailers view this continuing program of garage construction as a sign of the city's commitment to supporting business and retail growth. Though retailers complained of insufficient parking spaces, they also acknowledged that the city was working hard to solve parking problems. Off-street parking garages have also played a major role in promoting active street life in retail areas by encouraging pedestrian rather than automobile movement.

Although parking improvements were significant, both developers and retailers viewed favorably other investments such as those in arterial streets and pedestrian and transit systems improvements. Retailers thought that arterial street improvements did not have a direct impact on their sales. However, they did acknowledge that these improvements not only provided easier access to the downtown but also made for easier movement within the downtown. The Maine Way project (pedestrian improvements) was viewed favorably by merchants in the Congress Street area, where improvements are highly visible. Retailers in Congress Street also cited increased police presence and sidewalk maintenance as positive factors. Retailers generally agreed that the bus system improvements have facilitated access to downtown, though lack of service to the Old Port area was viewed as a drawback.

In a more general sense, civic projects such as the construction of a the civic center and public library and the expansion of the Portland Museum of Art set the pace for additional development. Portland's commercial sector has evolved well, and the city's links to the region by air, land, and water have helped to stabilize its position as a major city in northern New England.

Hartford, Connecticut

Hartford's revitalization experience in the late 1960s illustrated that successful urban renewal projects may not always serve as a catalyst for continued growth. Although the Constitution Plaza development was fully occupied soon after construction, major spin-off benefits were minimal. This situation could be attributed to the lack of coordination among interrelated aspects of planning including office, retail, housing, and transportation needs.

The construction of the civic center in the mid-1970s and the assignment of its operations to a life insurance company (Aetna) prompted Sheraton Hotel to locate its new branch in the vicinity of the civic center. Heavy private office development investments in downtown Hartford followed.

Although Hartford's downtown had begun to experience the transition from a retail economy to a service-oriented economy at the beginning of the century, city leaders failed to clearly understand the importance of meeting the transportation needs of the city. The office building boom in the 1980s took place in the absence of adequate transportation planning efforts, and there were consequent problems. For example, although several parking garages were constructed in downtown Hartford, the spaces are mostly occupied by the employees of the private office developments. The need for off-street, on-street parking for midday shoppers or tourists remains crucial. The limited availability of on-street, line-of-site parking in downtown after 10 a.m. has had a negative impact on the willingness of the region's residents to travel downtown for retail activities.

Hartford decision makers recognized that transportation problems could hinder future growth in the downtown. The Downtown Hartford Transportation Project, recently initiated, was an attempt to address the transportation issues in the city, such as vehicular and pedestrian circulation and parking demand due to private office developments. Monitoring and implementation of the project's recommendations were assigned to a private transportation management organization (The Rideshare Company) whose Downtown Transportation Working Committee meetings include 13 major corporate representatives of Hartford.

Although this transportation planning effort could be considered the most comprehensive transportation planning approach undertaken by any of the cities studied, an earlier decision to integrate transportation improvements with economic development efforts would have been helpful. A clear example of this need is that one of Hartford's major employers (Travelers) had decided to relocate part of its downtown corporate headquarters. It was only in 1982 (the same year that the Downtown Hartford Transportation Project was initiated) that Travelers decided to stay in downtown Hartford.

Springfield, Massachusetts

In Springfield the development of a major Interstate (I-91) brought with it mixed results. The highway has allowed the city to "billboard" itself to travelers and has provided an incentive for a downtown mall (Baystate West) and hotel growth (Marriott). However, this highway was also particularly influential in accelerating further migration to the suburbs.

The revitalization process in Springfield is one of the best examples of the positive outcome of public and private organizations working together toward a common goal. A consortium of banks and insurance companies led by the Springfield-based Massachusetts Mutual Life Insurance Company and supported by the city chamber of commerce, economic agency, and the Greater Springfield Chamber of Commerce was formed. This consortium, named Springfield Central, Inc., was instrumental in providing financial incentives for private-sector investment. So far this corporation has facilitated more than $250 million in downtown investments, including office, commercial, retail, and residential development projects. Moreover, the most ambitious mixed-use complex in the city's history (Monarch Place) is now under construction.

Except for the early highway investments, there were but moderate transportation improvements in the downtown. These were mainly the use of transportation management techniques such as signalization, ARS, provision of parking facilities, and transit service expansion. There was no clear attempt to integrate these transportation improvements with downtown revitalization efforts. However, these efforts appear to have paid off because there are no apparent problems of accessibility, parking, or circulation in downtown Springfield.

Springfield's revitalization efforts, though successful, have so far been unable to overcome the impacts of suburbanization. Perceptions of a declining
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city—high rates of street crime, poor shopping facilities, and insufficient parking—were difficult to overcome. Though these problems are no longer as extreme as they were, the downtown has not blossomed as a commercial, retail, and recreational center. Continued revitalization efforts, however, could attract more middle-income households to downtown Springfield. Only then would Springfield have the potential to establish a healthy office-sector employment base. This, in turn, would help to boost retail and cultural activity downtown.

Burlington, Vermont

The city of Burlington approached its revitalization efforts through the active collaboration of planners, transportation officials, and civic groups. Local officials worked extremely hard to prevent the development of an outlying shopping mall and encouraged such development in the CBD. In addition, the city recognized that concurrent changes in the CBD and transportation improvements were key to the success of its downtown revitalization projects. This combination of efforts also opened up the range of funding sources. The Church Street ARZ was funded primarily by UMTA, yet much of the project focused on retail improvements. The city also tapped local historic preservation organizations and the National Endowment for the Arts for additional funding. The importance of community support for downtown projects was clearly illustrated in Burlington. The favorable response to Church Street fairs, during which the street was closed off to vehicular traffic, spurred citizen involvement in the planning of the Marketplace. Community groups, such as the Downtown Burlington Development Authority, became an active voice in the revitalization efforts within the city. Promotion of the downtown as a desirable place in which to work and shop was another significant point in the Burlington study. The Church Street Marketplace Commission has advertised not only the pedestrian mall and public events but the improved transit system as well. The bus/park program has provided an incentive for both public transportation and automobile users to shop downtown. The location of bus stops and parking facilities within the CBD has allowed easy access to the downtown by both pedestrians and automobiles.

Burlington was the only city that explicitly integrated transportation improvements and downtown revitalization efforts. As noted earlier, the Church Street Marketplace renewal was funded by UMTA grants. This effort was successful for two reasons. First, the scale of investment in transportation developments was proportional to the size of the community. Second, with the assistance of key individuals in UMTA (one of whom was originally from Burlington), transportation planning was designed to address the needs of pedestrians, parking, and transit facilities.

CONCLUSIONS

Each of the four case study cities showed signs of downtown revitalization. It can be observed from Figure 2 that CBD retail sales increased slightly in Portland and that sales stabilized (or leveled off) in Hartford and Springfield. The efforts undertaken by each city have helped their CBDS to bring in new investments and rejuvenate the economy. The extent to which transportation improvements affected downtown revitalization varied from one city to another. Portland and Burlington stand out in their efforts to use transportation improvements to revitalize their downtowns. Hartford and Springfield, though successful in their efforts, did not provide much in the way of transportation improvements. None of the

![Figure 2](image-url)
cities except Burlington had an explicitly coordinated transportation and downtown revitalization plan.

The Portland case study clearly shows that off-street parking is a crucial element to downtown revitalization. The city's commitment to meeting the parking needs of private developers and businesses helped to bring in new investments downtown. Other improvements, such as arterial streets, transit system routes, sidewalk maintenance, and increased police presence, also contributed to making downtown Portland an attractive place in which to work and shop. Though there was no comprehensive plan developed for revitalization, city officials realized early that transportation improvements were necessary to make downtown Portland accessible. The city recognized that it needed to attract investors, and the investors required transportation access.

Hartford's revitalization experience in the late 1960s shows that successful urban renewal projects may not always serve as a catalyst for continued growth. The planned development of the Constitution Plaza and the civic center set the pace for development and the subsequent office boom in the 1980s. However, this has not led to the revival of the retail sector. Although the office boom has continued, improvements to the transit and parking (on-street and off-street) systems have not been adequate to meet the requirements of shoppers and tourists. This has deterred residents from traveling downtown for shopping and recreation. Only recently has the city developed a comprehensive approach (including the Downtown Hartford Transportation Project) to alleviate such problems in the downtown area.

Springfield's revitalization is one of the best examples of public and private partnership. As noted, Springfield Central, Inc., has been instrumental in providing financial incentives for private-sector investment and mixed housing development. Transportation improvements (signalization, transit service, parking) were few and there was no clear attempt to integrate transportation improvements with downtown revitalization efforts. Though these efforts have improved the image of the city, downtown Springfield is still unable to compete effectively with regional malls.

Burlington's successful revitalization was a joint effort that involved planners, transportation officials, and citizen groups. A clear effort was made to integrate downtown revitalization and transportation planning efforts. Also, the city successfully used fair, bus/park programs, parking facilities, transit service improvement, and pedestrian amenities to promote downtown Burlington as a desirable place in which to work and shop.

These case studies show clearly that the efforts undertaken by small and medium-sized cities in some respects are no different from those of larger cities. The revitalization techniques include public investments to improve the physical image of the shopping district, improved transit services, street and sidewalk maintenance, traffic restrictions, and coordination of sponsored activities and promotions. However, there are two aspects that appear to be particularly important in small and medium-sized cities: ease of access and parking (to meet the needs of shoppers and workers) and mixed housing development (to bring more middle-income people into cities).

Given the attraction and convenience of competitive suburban centers, the ability of a smaller city to attract regional shoppers downtown depends greatly on ease of access and parking downtown. Parking fees deter shoppers from coming in from the suburbs. Also, badly designed parking structures tend to heighten fear of crime. Strategies such as park-and-shop or bus-and-shop programs to draw more people to downtown areas can be helpful in this regard.

The presence of a substantial middle-income population in the central cities is another factor in downtown renewal. Except Springfield, none of the cities appears to have paid attention to this important factor. Downtown retail districts can draw on a variety of sources--residents, office workers, tourists, and business visitors. However, local retailers usually cannot depend on business visitors, office workers, and tourists for the necessary volume of trade. Local residents are essential to sustain sales.

Large cities, such as New York, Chicago, and Boston, have a substantial affluent resident population surrounding downtown on which downtown establishments can rely. But in most small and medium-sized cities the middle-class population lives in the suburbs, closer to regional centers than to downtown. Building up the residential base of the central area may be a way of overcoming this disadvantage.

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