

# Image of Rail Transit

KATHERINE F. TURNBULL

Many aspects of rail transit systems are often classified as intangible—that is, they are perceived as beneficial but are difficult or impossible to quantify. Included in this category are the image that the rail system projects; the system's effect on the city's image, marketing and promotional activities, and land use and development; and the perception of what the rail system has done for the quality of life and mobility of an area. To obtain a better understanding of the impacts that rail transit systems have had on these aspects, the Texas Transportation Institute, under contract to the Metropolitan Transit Authority of Harris County (Houston Metro), conducted interviews with representatives of agencies and organizations in four cities that recently implemented rail transit systems: Atlanta, Miami, Portland, and San Diego. Similar interviews were conducted in Houston, allowing a comparison of responses in Houston with those from the other cities. The results, which provide a qualitative, rather than quantitative, assessment of some of the less tangible aspects of rail transit systems, should benefit metropolitan areas where rail transit systems are being considered and practitioners attempting to better understand the rail transit decision-making process.

Many aspects of rail transit systems have positive effects on the communities in which the systems are located but are difficult or impossible to quantify. Intangible aspects include such things as the system's effect on the city's image, marketing and promotional activities, and land use and development, and the perception of what the system has done for the quality of life and mobility of an area. Many of these elements have been identified as important aspects of rail systems and have been cited as considerations in the decision-making process used in some cities (1,2).

The research presented here was conducted by the Texas Transportation Institute (TTI), a part of the Texas A&M University System, under contract to the Metropolitan Transit Authority of Harris County (Metro). Metro requested that TTI examine the less tangible effects of rail transit systems. The results provide information on the impact of these attributes and enhance the understanding of the role these aspects may play in the rail transit decision-making process. The results should benefit metropolitan areas in which rail transit systems are being considered. The analysis provides a qualitative, rather than quantitative, assessment of many of the less tangible aspects of rail transit systems. However, given the importance of these attributes, the analysis provides valuable insight into the less tangible aspects of rail transit. Additional research is suggested to more fully comprehend these impacts.

## METHODOLOGY

The process used in this assessment focused on conducting structured interviews with individuals from similar agencies and organizations in four cities that have recently implemented rail transit systems: Atlanta, Miami, Portland, and San Diego. In addition, interviews were conducted in Houston to allow a comparison of the responses in a city considering a rail system. In each city, interviews were held with representatives from some combination of the following organizations and agencies: transit authority, metropolitan planning organization (MPO), state department of transportation, downtown development group, chamber of commerce, visitors and convention bureau, private developer or development organization, and the city. Table 1 presents a summary of the agencies and organizations included in the interview process in each city.

In every case, representatives from the transit authority, MPO, and state department of transportation were interviewed. Representatives from other appropriate groups were interviewed depending on the organizational structure in the area. A total of 24 interviews were conducted in the four rail cities, with 5 to 8 interviews in each city. Seventeen interviews were conducted in Houston.

Additional research activities were completed to support the interviews. Promotional and marketing materials obtained from many organizations in the four cities were reviewed to assess how prominently the rail system was featured. Relevant reports and documents, such as those on economic development activities, traffic impacts, and public opinion polls, were obtained from some areas and reviewed, along with newspaper and journal articles identifying public and political reaction to the projects. Finally, a limited number of telephone interviews were conducted with representatives of firms specializing in helping businesses to make locational decisions. The purpose of these interviews was to identify the impact that rail systems may have on the business location decision-making process.

The approach used in this analysis is not without drawbacks. The interviewees provided relatively objective responses to questions. Most were open about discussing both the positive and negative impacts of the rail systems. In addition, a number of people identified situations in which anticipated benefits, such as new development, had not occurred. However, despite the overall objectivity of the interviews, some statements can be viewed as overly positive or public-relations oriented. This is not surprising given the significant investment that the rail systems represent, and an effort has been made to examine other relevant information and to put these statements in the proper context.

Texas Transportation Institute, Texas A&M University System, College Station, Tex. 77843.

TABLE 1 AGENCIES AND ORGANIZATIONS INCLUDED IN THE INTERVIEW PROCESS

	Atlanta	Miami	Portland	San Diego	Houston
Transit Authority	X	X	X	X	X
Metropolitan Planning Organization	X	X	X	X	X
State Department of Transportation					
City	X	X	X		X
Downtown Development Group	X	X	X	X	X
Chamber of Commerce/Visitors & Convention Bureau	X		X		X
Private Developer or Development Organization	X		X	X	X

A structured process was used in each interview. Topics covered in the interviews included assessments of the rail transit system on the basis of

- The image it projects;
- The image of the city;
- The quality of life;
- Access to employment, shopping, education, and entertainment;
- Service to low-income areas and increased access to employment opportunities;
- Use in marketing and promotional activities of the city;
- Influence in attracting new businesses to locate in the city or in business relocation decisions;
- Energy, air quality, and environmental improvements; and
- Urban congestion levels.

Other topics covered in the interview included general reactions concerning

- Perception of bus and rail transit, including that of the general public;
- Factors that should be considered in the rail transit decision-making process;
- Public reaction to the rail system; and
- Local policies or programs supporting the use of transit or land use and development changes, or both.

Whereas the impact of rail transit on economic development and land use was analyzed separately (3), interviewees were asked for their perception of the impact of rail in these areas. In addition, the general approach used in the four cities for coordinating and promoting development in conjunction with the rail system was examined.

## RESULTS

### Quality of Life, Attractiveness, and Accessibility

In all four cities, the interviewees indicated that the rail systems have had a positive impact on the quality of life, attractiveness, and accessibility of the cities. The impacts most

often mentioned were maintaining and enhancing the vitality of the downtown area and providing access to other major activity centers, such as suburban shopping centers, educational institutions, sports complexes, and cultural centers. Many individuals also noted that the systems provided high levels of service to both transit-dependent groups and choice riders.

The downtown was identified as the area receiving the major benefits from the rail systems. This was voiced most strongly in Portland and Atlanta. Interviewees in Portland noted the longer weekend shopping hours and increased sales of downtown businesses as examples of this impact. The Portland experience has been documented in other reports and surveys of downtown businesses (4). A number of interviewees noted that rapid transit has made the downtown area of Atlanta a more attractive place to live and work and that it would be difficult to serve the downtown work force without it. The improvement was ascribed not only to the attributes of the rail system, but also to its resulting in the removal of buses from downtown streets.

Positive impacts on other areas of the city and facilities served by the rail systems were also noted. For example, in Atlanta, Miami, and San Diego, the rail lines serve major educational institutions. Provision of greatly improved access to these junior colleges, colleges, and universities was noted as an important feature of the systems. Service to cultural and sporting activities, such as Metropolitan Atlanta Rapid Transit Authority (MARTA) service to the Arts Center and Omni Complex, was cited as a further example of the positive impact of the systems on mobility and accessibility.

In Atlanta, Miami, and Portland, major suburban shopping centers are accessible by the rail systems. Some interviewees noted that, although initially the managements of these facilities had not always been enthusiastic about the rail connections, citing potential increases in vandalism, the experience in most areas had been positive. Interviewees in all four systems emphasized the role the systems played in increasing accessibility and mobility for low-income and minority groups.

### Image

Representatives of Atlanta, Portland, and San Diego all believed that the rail systems provided the image of a progressive, forward-looking city. They indicated that the rail systems have projected this positive image from the start. A number of the people interviewed in Miami admitted that MetroRail started with a negative image because of low ridership levels and high capital costs. However, they believed that the image of the system was now much better and contributed positively to the image of Miami. A review of newspaper articles from the time of the opening of the Miami system supports the belief of an initial negative reaction (5).

Interviewees in all four cities indicated that the rail systems were thought of as integral parts of the cities' images. Rail was believed to enhance the image they wanted to project—that of progressive, forward-looking, high-technology cities. Many people, especially representatives of cities whose neighbors do not have rail systems, noted that the rail systems set them apart from other cities. Thus, Portland noted that Seattle does not have a rail system, San Diego mentioned that the

Trolley sets it apart from Los Angeles and Orange County, and Miami noted that Orlando does not have a rail line.

Whereas the image aspect of rail was mentioned by everyone, it was noted most strongly by interviewees involved in marketing and promotional activities. These representatives stressed the important role image plays in selling, marketing, and promoting a city. The rail systems were believed to provide an additional tool the cities could use to compete with other areas and to further enhance the progressive and "world class" image the cities wanted to project. A number of interviewees indicated that the rail systems had provided an important psychological boost for the city. They linked this to the pride many residents expressed about the systems. This was noted most strongly in Portland and San Diego.

### **Perception of Rail Versus Bus**

All interviewees indicated that they believed rail transit to be perceived differently from buses by the public and policy makers. Terms used to characterize the superior perception of rail included the following: a fixed facility that people know will be there, more dependable and reliable, more comfortable and attractive, faster, sleeker, and a higher-class service. These characteristics were deemed to be important to the image projected by the system and the city. An interviewee in Miami indicated that when focus groups in a test marketing program were shown videos with mostly buses and only a few rail pictures, the thing people remembered most was the rail vehicles.

Telephone interviews conducted with representatives of business location firms supported this perception of rail, although not quite as strongly. Interviewees indicated that most businesses view the availability of rail transit service more positively than bus because it is a fixed facility and because of its speed, attractiveness, and visibility. As one representative indicated, "Rail sticks out." However, most indicated that transit service in general, whether bus or rail, is not usually one of the major factors in the business location decision-making process.

### **Marketing and Promotional Activities**

All interviewees in the four cities indicated that the rail systems are used in the cities' marketing and promotional efforts. Most noted that the rail system plays an important, but supporting, role in these efforts and is an additional tool the city can use in competing with other cities. The rail system is shown as one element of the total transportation system and is highlighted to promote the accessibility and ease of travel within the area.

A review of marketing and promotional materials from the different organizations within each city reinforces these statements. Pictures of the rail systems are used in many publications, often in prominent locations, and information on the systems is provided in the text in a supporting fashion. Thus, the appearance of the systems is important in the promotional activities of the areas. Pictures of the system are usually more prominently displayed than actual information. For example, the Atlanta Chamber of Commerce publication on transpor-

tation in metropolitan Atlanta features a picture of a MARTA vehicle on the cover, and a note in the introduction indicates that MARTA service was recently extended to the airport. However, actual information on MARTA is contained on page 15, following information on Hartsfield International Airport, cities with scheduled air service to Atlanta, airlines serving Atlanta, general aviation, railroads, highways, motor freight, and freight forwarders (6).

The interviews indicated that the rail systems are viewed as especially important in marketing efforts oriented toward attracting visitors, tourists, and conventions. For example, a number of people in Atlanta suggested that MARTA had helped to attract the 1988 Democratic National Convention to the city. It was also noted that MARTA was being used heavily in Atlanta's bid to host the Olympics.

### **Public Reaction and Perception**

In general, the rail systems were thought to be well received by the general public, although many interviewees prefaced their response with "it depends on whom you talk to." Overall, most people indicated that the systems were perceived positively and believed to be of benefit to the area. It was suggested that they were viewed most positively by riders and the downtown business community. People who do not use the system and residents and businesses in areas that are not served may be less supportive.

In Miami, several interviewees noted that some of the problems encountered when the system first opened, such as lack of coordination with and low levels of feeder bus service, contributed to some of the initial negative feelings toward MetroRail. The initiation of the rail service and restructuring of the bus system were described by some as "traumatic" and "chaotic." However, most indicated that support for the system has grown as service improvements have been made.

In Portland and San Diego, the interviewees indicated that the rail systems enjoy widespread support from both users and nonusers. Representatives in Portland cited recent telephone polls and business surveys to gauge this support. In San Diego, the 1987 election, in which voters approved an additional 1/2 percent sales tax to be used for transportation improvements, including one-third of the total for rail expansions, was cited as the best measure of the public's support for the system.

### **Congestion, Energy, and Air Quality**

Most interviewees indicated that the rail systems have probably had only a minor impact on congestion levels, energy, and air quality, although most believed that these had been important considerations during the decision-making process. Respondents in all areas indicated that the rail systems had added needed capacity to the corridors in which they are located and had reduced bus congestion on downtown streets. In addition, interviewees in some areas indicated that the rail systems had helped with specific "hot spot" air quality concerns, but none could cite specific studies. The best before-and-after evaluation of some of these factors was conducted by the Atlanta Regional Commission (ARC) during the initial

phases of MARTA development. However, the results of the traffic monitoring study conducted by ARC were inconclusive because of a lack of discernible trends and the potential impacts of external factors (7).

### Development and Land Use Impacts

The questions relating to development and land use impacts focused on the approach used in the different cities to promote and coordinate these activities and the general perceptions of the impact that the rail systems have had on land use and development. A more detailed examination of the impact of rail transit on economic development and land use was conducted separately (3).

The impact of the rail systems on development and land use patterns was perceived differently in the four cities. In general, all interviewees believed that the rail systems have had a positive impact on development, but the level of this impact was viewed differently. Representatives in Atlanta and Portland expressed stronger support for the impact that the rail systems have had on development than those in Miami and San Diego. This is in part due to the approach used to promote and influence development in conjunction with the rail systems. Atlanta and Portland have taken a planned approach to focusing future growth around the rail system and encouraging the use of transit through supporting policies, which include rezonings, density and parking trade-offs, parking policies and pricing, and other incentives. On the other hand, Miami and San Diego have taken a less active approach to encouraging and promoting development. The lower level of development activities associated with the rail systems in these two areas may reflect this approach.

The interviews and literature review indicate that examples of new development adjacent to the rail systems exist in all four cities. In all cases, representatives noted that the impact has been primarily on regional locational decisions rather than attracting new business from outside the region. This contention corresponds to the conclusions reached in the independent analysis (3) and the interviews conducted with representatives of business location firms.

The important role of supporting and complementary policies was also noted. All interviewees noted that other policies, such as those relating to parking requirements, zoning, land use, and density can be used to encourage development at certain locations. In addition, several interviewees noted that the systems are still relatively new and that the full development impacts have not yet been realized.

Representatives in all four cities indicated that the rail system was not the major reason for the location of the new developments, but that it was an important element in the decision-making process. Many also indicated that the rail system helps make existing development function better. The ability of rail transit to deliver large volumes of people in a short time was identified as a major feature that attracted development.

Many respondents were open about discussing areas where the rail system had not yet influenced new development or redevelopment. For example, many people in Atlanta expressed disappointment that MARTA had not yet been able to attract new development around some stations. It was noted

that the presence of MARTA alone is not enough to overcome historical development patterns or market forces. Even in these cases, however, interviewees in all four cities indicated that development potential was still present.

### Reasons To Build Rail

The last set of questions focused on identifying the most important reasons why an area should consider a rail transit system. The factor mentioned most frequently was the need to move large numbers of people. Thus, ridership was most often cited as the key criterion. The next-most-often-cited elements were the potential for long-term savings in transit operating costs, the potential for encouraging development, enhancing the image of the city, and other factors. Most respondents indicated that the transportation function of the system was most important and that other factors, such as the potential to influence development and enhance the image of the city, should be considered secondary benefits.

### SUGGESTIONS FOR ADDITIONAL RESEARCH

The information presented in this paper provides an initial assessment of many of the less tangible qualities of rail transit systems. However, additional research is needed to obtain a deeper understanding of the impact and importance of these attributes. To accomplish this, a number of areas are suggested for further study.

The first consideration is to include more cities in the analysis. Conducting interviews in other cities would expand and enhance this initial assessment. A more detailed examination of local studies and data should be included. Budget and schedule limited the number of cities and interviews in this study.

Consideration should also be given to determining whether there is a difference in the perceptions of different types of rail systems. No attempt was made in this initial effort to distinguish between the impacts of light rail, heavy rail, and automated guideway systems. In addition, a further comparison of perceptions associated with automobiles, buses, high-occupancy-vehicle facilities, rail, and advanced technologies would be of benefit.

Another area for analysis is a more detailed examination of the supporting policies and programs that have been used to promote development in conjunction with rail transit systems and to encourage ridership. It appears that these policies and incentives are important in influencing development and land use adjacent to the rail line. Such a study would be of benefit in areas where enhancement of current projects or implementation of new systems is being considered.

### CONCLUSION

The results of this analysis provide a qualitative assessment of some of the less tangible aspects of rail transit systems. These attributes have often been noted as important factors influencing the rail transit decision-making process. The information presented in this paper should enhance the under-

standing of many of these aspects of rail transit. The results should be useful in metropolitan areas where rail transit systems are being considered and to practitioners attempting to better understand the rail transit decision-making process.

For example, the results were used as one element of the ongoing consideration of rail transit in Houston. As noted, a series of interviews with representatives from similar agencies and organizations was conducted in Houston in 1989. The results of these interviews were compared with those from the four cities described in this paper. This allowed decision makers to compare the perceptions of individuals in Houston with those of the representatives of the four cities, which was beneficial in the discussion of the importance and role that these less tangible aspects of rail should play in the decision-making process. Similar comparisons may be useful in other areas considering rail transit systems.

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