



U.S. Department of Transportation

**Urban Mass Transportation
Administration**

-compendium-

UMTA abstracts
1989-1990

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4. Title and Subtitle Compendium - FTA Abstracts 1989-1990		5. Report Date January 1991	6. Performing Organization Code
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7. Author(s) Pauline A. D'Antignac		10. Work Unit No. (TRAIS)	
9. Performing Organization Name and Address Federal Transit Administration Office of Technical Assistance & Safety 400 7th Street., S.W., TTS-31 Washington, D.C. 20590		11. Contract or Grant No.	
		13. Type of Report and Period Covered 1989-1990	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Federal Transit Administration 400 7th St. S.W. Washington, D.C. 20590		14. Sponsoring Agency Code TTS-31	
		15. Supplementary Notes	
16. Abstract The 1989/1990 Compendium is a compilation of Technical Report Documentation pages that provide bibliographic information and abstracts for recently available FTA-sponsored project reports that have been put on file with the Transportation Research Information Center.			
17. Key Words Carpool, Vanpool, Buses, Trains, Cars, APTS, Rural Transportation		18. Distribution Statement Report Available from: National Technical Information Service 5285 Port Royal Road Springfield, Virginia 22161 (703) 487-4650	
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Reprinted Version
Compendium - UMTA Abstracts 1989/1990

Due to the large volume of request for this Compendium, FTA found it necessary to reprint this report.

Unfortunately, copies of the reports listed in this Compendium are no longer available from FTA, however, the reports are available from NTIS (at cost) and/or inter-library loan through the FTA repositories.

NOTE:

Public Law 102-240 - December 18, 1991
SEC. 3004. Federal Transit Administration

(a) Redesignation of UMTA. - The Urban Mass Transportation Administration of the Department of Transportation shall be known and designated as the "Federal Transit Administration".

(b) References. - Any reference in a law, map, regulation, document, paper, or other record of the United States to the Urban Mass Transportation shall be deemed to be a reference to the "Federal Transit Administration".



U.S. Department
of Transportation

**Urban Mass
Transportation
Administration**

Headquarters

400 7th Street S.W.
Washington, D.C. 20590

UMTA ABSTRACTS
1989/1990 COMPENDIUM

JANUARY - DECEMBER 1989/1990
UMTA TECHNICAL ASSISTANCE

UMTA ABSTRACTS NOW ONLINE IN
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This 1989/1990 Compendium is a compilation of Technical Report Documentation pages that provide bibliographic information and abstracts for recently available UMTA-sponsored project reports. All abstracts are logged-in the transportation database called UMTRIS (Urban Mass Transportation Research Information Service) and are available online (Dialog file 63) to users of Dialog Information Services, Palo Alto, California. The Compendium is a courtesy service exclusively for UMTRIS subscribers.

Section 1 of the Compendium provides abstracts of the UMTA-sponsored research reports available from the National Technical Information Service (NTIS) and from Regional Repositories. Section 2 provides abstracts of technical study and planning reports available only through an interlibrary loan arrangement with the designated transportation libraries. Section 3 describes the transportation database UMTRIS, lists UMTA Regional Offices, and provides a listing of research reports currently available to the public by written request.

-- Issued by

Urban Mass Transportation Administration
Office of Technical Assistance and Safety
400 7th Street, S.W., Room 6100
Washington, D.C. 20590

Attn: Pauline A. D'Antignac

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UMTA ABSTRACTS SUBJECT CLASSIFICATION

01. Conventional Transportation Services
02. Traffic Mitigation (Center City and Suburban)
03. Energy and Environment
04. Fare/Pricing and Service Innovations
05. Financing
06. Land Use
07. Rural Transportation
08. Paratransit Systems and Services
09. Planning, Policy and Program Development
10. Political Processes and Legal Affairs
11. Safety and Security
12. Socioeconomics
13. Technology Development and Deployment
 - A-B. Bus and Paratransit Technology
 - C. New Systems and Automation
 - D. Rapid Rail Vehicles and Systems
 - E. Construction/Tunneling
 - F. Light Rail Transit
14. Transportation Disadvantaged/Special-User
15. Transit Management/Training
16. Transportation Productivity
17. Urban Goods Movement
18. Public/Private Partnership (Privatization)
 - o Competitive Contracting
 - o Transportation Management Associations (TMA)
 - o Institutional and Financial Arrangements, etc.

SECTION 1

UMTA-SPONSORED RESEARCH REPORTS

REPORT AVAILABILITY

All reports cited in Section 1 of this Compendium are available to the public from the following institutions:

- o purchase report from the National Technical Information Service (NTIS), page 2-4

- o interlibrary loan arrangement with any of the Regional Centers/Repositories, page 5-6

UMTA REPORT AVAILABILITY AT NTIS

1991

Reports sponsored by the Urban Mass Transportation Administration (UMTA), U.S. Department of Transportation, are available for purchase from:

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U.S. Department of Commerce
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T05	\$500	\$1,000
T06	\$600	\$1,200
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T09	\$900	\$1,800
T10	\$1,000	\$2,000
T11	\$1,100	\$2,200
T12	\$1,200	\$2,400
T13	\$1,300	\$2,600
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D09	\$425	\$850
D10	\$475	\$950
D11	\$525	\$1,050
D12	\$575	\$1,150
D13	\$625	\$1,250
D14	\$675	\$1,350
D15	\$725	\$1,450
D16	\$775	\$1,550
D17	\$825	\$1,650
D18	\$875	\$1,750
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JANUARY 1991

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- o Purchase from: National Technical Information Service (NTIS)
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ABSTRACTS OF UMTA-SPONSORED RESEARCH REPORTS

01. Conventional Transportation Services

Technical Report Documentation Page

1. Report No. UMTA-CA-11-0034-90-1	2. Government Accession No. (NTIS) PB 90-219882/AS	3. Information System UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Analysis, Contrast, and Critique of Four Commuter Coordination Systems.		5. Report Date February 1990	6. DOT Report Number
7. Author(s)		8. Performing Organization Report No.	
9. Performing Organization Name and Address University of California-Irvine Graduate School of Management Irvine, California 92717		10. Grant or Project No. UMTA-CA-11-0034	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered University Research	
15. Supplementary Notes		14. Sponsoring Agency Code UTS-30	
16. Abstract The purpose of this review is to establish a general understanding of the concept of organizational effectiveness by summarizing major models of effectiveness presented in literature, and to specify a useful framework for analyzing organizational effectiveness in the 4 commuter coordination systems documented in this report. This study examined operations at four commuter coordination organizations in California. Interviews with individual and small groups were conducted with members of all levels of the organizations in San Diego, Sacramento, Orange County and the Los Angeles area. Respondents provided qualitative and quantitative information on the region and the history of the agency, the services offered, and the structure and culture of the organization. The strengths and weaknesses of each organizational form were analyzed and speculated on the future of the organization as well as the commuter coordination function. A model of interorganizational relationships was developed as a result of the interviews and this model was employed to evaluate the strengths and weaknesses of each organizational form and to generate an ideal type for future rideshare organizations. Legislation legitimizing the commuter coordination service was found to be a critical factor in the ability of the agencies to impact their environments. The numerous appendices in this report provide reference documents related to ordinances, vanpool license and maintenance requirements, tips to make ridesharing work, air quality planning, demand management plans, night rider and student ridesharing plans, and others.			
17. Key Words Commuter Coordination Systems Case Studies Demand Management Ridesharing Vanpool Buspool Carpool Review Regional Transit Ordinances Constituency-Based Model Planning Organizational Structures Comparisons		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 464	22. Price (NTIS) A20

01. Conventional Transportation Services

Technical Report Documentation Page

1. Report No. UMTA-IT-06-0352-90-1	2. Government Accession No. (NTIS) PB 91-132043	3. Recipient's Catalog No. UMTRIS/Section 6	
4. Title and Subtitle NATIONAL URBAN MASS TRANSPORTATION STATISTICS, 1989 Section 15 Annual Report		5. Report Date November 1990	
		6. Performing Organization Code	
7. Author(s) Marvin Futrell, UMTA Section 15 Manager T. N. Black, COMSIS Project Manager		8. Performing Organization Report No.	
9. Performing Organization Name and Address COMSIS Corporation 8737 Colesville Road Suite 1100 Silver Spring, MD 20910		10. Work Unit No. (TR AIS)	
		11. Contract or Grant No. DTUM60-90-C-41004 IT-06-0352	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Capital and Formula Assistance Audit Review and Analysis Division Washington, D.C. 20590		13. Type of Report and Period Covered Annual Report January 1, 1989 to December 31, 1989	
		14. Sponsoring Agency Code UGM-13	
15. Supplementary Notes			
16. Abstract This report summarizes the financial and operating data submitted to the Urban Mass Transportation Administration (UMTA) by the nation's public transit operators, pursuant to Section 15 of the Urban Mass Transportation (UMT) Act of 1964, as amended. This report consists of three chapters. Chapter 1 contains an introduction to the Section 15 reporting system and its relationship to the Section 9 program. Chapter 2 contains aggregate industry statistics derived from the complete Section 15 reports which were submitted. Chapter 3 contains financial and operating data on the individual transit systems that submitted complete Section 15 reports. All data in this report are for transit years ending on or between January 1 and December 31, 1989.			
17. Key Words mass transportation; public transportation; transit data; revenues; expenses; maintenance data; accident data; formula-apportioned assistance; vehicle miles; passenger miles; route miles; fleet inventory; performance indicators		Document available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) UNCLASSIFIED	20. Security Classif. (of this page) UNCLASSIFIED	21. No. of Pages 689 Pages	22. Price

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01. Conventional Transportation Services

Technical Report Documentation Page

1. Report No. UMTA-MA-11-0043-89-1	2. Government Accession No. (NTIS) PB 90-129453/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle The Potential for Supplemental Freight Services in Ferry Planning and Operations: A Case Study and Planning Guidelines.		5. Report Date August 1989	6. Performing Organization Code Nu 9131
		8. DOT Report No.	
7. Author's J.G. Schoon, P.G. Furth, and R.C. Lieb		10. Grant or Project No. UMTA-MA-11-0043	11. Contract No.
9. Performing Organization Name and Address Northeastern University Department of Civil Engineering 360 Huntington Avenue Boston, Massachusetts 02115		13. Type of Report and Period Covered University Research Case Study Ferry Planning Guidelines	
		14. Sponsoring Agency Code UTS-30	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		15. Supplementary Notes This report includes a bibliography and the following 4 appendices: A-1, Example of Scenario Cost and Price Computations; A-2, Potential Ferry Vessel; A-3, Summary of Daily Costs; and A-4, Estimated Operating Costs.	
16. Abstract Despite technological advances and passenger demand for ferry travel, waterborne transportation services are still being subsidized by public agencies in order that fares may remain competitive with other modes of transportation. This report presents a case study of the Boston Harbor area. The study focuses on the potential for providing supplemental freight services as a means of generating additional revenues for ferry passenger service in Boston, Massachusetts. The study evaluates current and proposed services, describes the physical and operating characteristics of existing land-based and waterborne transportation systems as well as the main features of future planned ferry routes and the merits of supplemental freight services that would be competitive with land-based services. A review was made of possible present and future opportunities for implementing supplemental freight services based upon time, distance, security and cost of competing land-based services. Several scenarios were developed and screened to identify the routes for detailed analysis. Scenarios are documented and evaluated in this report. The report provides a summary of findings that include examples of the freight costs and requirements that will serve as a guide for future planning or investigation of feasibility in other areas. The terminal and vessel costs and designs illustrated for the Boston area have potential application in other geographic locations. The results of this study show that transporting supplemental freight on passenger ferries in the Boston area is technically feasible. Major findings are listed and summarized in this report.			
17. Key Words Supplemental Freight Services Ferry Passenger Service Case Study Boston Harbor Feasibility Study Revenues Waterborne Transportation Planning Guidelines Operations Bibliography Subsidies Scenarios		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 120	22. Price (NTIS) A06

01. Conventional Transportation

Technical Report Documentation Page

1. Report No. UMTA-TX-09-1086-89-1	2. Government Accession No. (NTIS) PB 90-195256/AS	3. Information System UMTRIS/UMTA SECTION 9	
4. Title and Subtitle Land Use Impacts of the Houston Transitway System: Summary Report.		5. Report Date October 1989	6. DOT Report Number
		8. Performing Organization Report No. Technical Report 1086-8F	
7. Author(s) E.J. Washington and R.W. Stokes		10. Grant or Project No. UMTA-TX-09-1086 Cross Ref.	
9. Performing Organization Name and Address Texas A&M University System Texas Transportation Institute College Station, Texas 77843		11. Contract No.	
		13. Type of Report and Period Covered Summary Report Planning	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code URO-6	
		15. Supplementary Notes Companion research study title: Land Use and Innovative Funding Impacts in a Permanent Busway/Transitway Park-And-Ride Transit System, March 1987.	
16. Abstract The Houston Metropolitan area is implementing one of the most extensive HOV priority treatment networks in the nation. More than 36 mi. of transitways (busways) are now operational and 59 mi. are currently underway. Ultimately, the commitment to transitways may result in 100 miles of these facilities in operation at a total capital cost of approximately \$700 million. The objectives of this 5-year study are to measure, analyze and evaluate land use impacts resulting from construction of transitways and park-and-ride facilities in the Houston area; and to evaluate the 'turnkey' procurement concept used by Houston Metro and determine its nationwide application for park-and-ride facility development. This report provides a summary of a 5-year study of the transportation and land use impacts resulting from the implementation of the extensive priority system of busways and park-and-ride facilities in Houston, Texas. Four HOV lanes with supporting park-and-ride facilities were placed in operation within the study time frame: Houston's North (I-45N), Katy (I-10W), Gulf (I-45S), and Northwest (US 290). This report focuses on the impacts of 3 of these HOVs: I-45N, I-45S, and I-10W. Preliminary results indicate that while the transportation impacts of the operational elements of the Houston transitway system have been substantial, no substantial land use impacts can be identified at this time. A more definitive assessment of land use impacts may not be possible until the system is fully operational and integrated into the community's total transportation system. This report contains a bibliography, a list of references and charts that layout the elements of the Houston transitway system.			
17. Key Words Houston Transitway System Busway Park-and-Ride Facilities HOV Lanes HOV Priority Network Bus Rapid Express Bus Land Use Economic Impact Freeway Corridor Development Turnkey Procurement		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 87	22. Price (NTIS) A05

01. Conventional Transportation Services

Technical Report Documentation Page

1. Report No. UMTA-TX-08-8014-89-2	2. Government Accession No. (NTIS) PB 90-197609/AS	3. Information System UMTRIS/UMTA SECTION 8	
4. Title and Subtitle The Cost and Benefits of Urban Public Transit in Texas.		5. Report Date November 1989	6. DOT Report Number
		8. Performing Organization Report No. Research Report 2003-1F	
7. Author/s T.J. Lomax and J.L. Memmott		10. Grant or Project No. Study 2-10-89-2003	
9. Performing Organization Name and Address The Texas A&M University System Texas Transportation Institute College Station, Texas 77843-3135		11. Contract No.	
		13. Type of Report and Period Covered Planning Interim Report July 1987 - January 1990	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code URO-6	
15. Supplementary Notes Related reports: Land Use Impacts of the Houston Transitway System, UMTA-TX-08-8014-89-1, Oct. 1989; and Planning and Policy Issues Associated with Developing Mass Transportation Improvements in Urban Freeway Corridors, UMTA-TX-08-8013-88-3, Aug. 1988.			
16. Abstract This study affirms that urban public transit systems in Texas provide an alternative to the private automobile in 18 urban areas and generate significant benefits to the users, communities served and the Texas economy. The purpose of this study was to examine the role of urban public transit systems in Texas and associated cost and benefits of transit operations. This report summarizes and documents data collected from federal, state, and local planning and transit agencies--transit operations, ridership characteristics, transit and automobile trip patterns, and impact of transit on urban congestion levels--and describes transit's role in each system along with resulting costs and benefits. Six of the 18 systems examined were large transit systems serving areas of more than 500,000 population--Austin, Dallas, El Paso, Fort Worth, Houston and San Antonio. The other 12 systems assessed were smaller systems with ridership less than 10,000 trips in 1986--Abilene, Amarillo, Beaumont, Brownsville, Corpus Christi, Galveston, Laredo, Lubbock, Port Arthur, San Angelo, Waco and Wichita Falls. Benefits of Texas transit systems were estimated for the 6 largest urban areas for 1987 and 1992 in terms of reduced congestion, costs, accidents and fuel consumption. Using an input/output model, the benefits of expenditures for all 18 transit systems were estimated in terms of increased income and employment. The appendices in this report provide transit system operating statistics, roadway and transit travel, and HPMS output for calculating motorist benefits of transit. The data in this report can be used by transit agencies in Texas to compare operations, service, ridership characteristics, mode share and impact of transit on roadway operation.			
17. Key Words Costs and Benefits Planning Texas Urban Public Transit Systems Ridership Travel/Trip patterns Regional Transit Transit's Role Congestion Economic Impacts Mode Share		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 69	22. Price (NTIS) A04

01. Conventional Transportation

Technical Report Documentation Page

1. Report No. UMTA-UTS-10-88-1	2. Government Accession No.(NTIS) PB 89-208276	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Conference Proceedings of the Third National High Occupancy Vehicle (HOV) Facilities Conference, October 17-19, 1988, Minneapolis, Minnesota.		5. Report Date October 1988	
		6. Performing Organization Code	
7. Author(s) Katherine F. Turnbull, Editor		8. Performing Organization Report No.	
9. Performing Organization Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Washington, DC 20590		10. Work Unit No. (TRIS) UMTA-UTS-10	
		11. Contract or Grant No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Conference Proceedings	
		14. Sponsoring Agency Code UTS-10	
15. Supplementary Notes			
16. Abstract Interest in HOV facilities and in the congestion threatening the nation's freeway and urban transport systems generated conference support from both national and local agencies. This report documents the Conference Proceedings of the Third National High Occupancy Vehicle (HOV) Facilities Conference held in Minneapolis, Minnesota, October 17-19, 1988. Workshops and general sessions provided the 200 participants with opportunities to exchange ideas and to learn about the latest HOV developments nationwide. Full text copies of keynote addresses and workshop sessions are recorded in this report, along with the Conference Registration List, and a revised copy of the paper titled High Occupancy Vehicle Forecasting in the San Francisco Bay Region, by C.L. Purvis. Some of the papers delivered at the conference were the following: Nationwide Overview of HOV Lane Projects now in Operation in 17 Cities in US and Canada; Creative Solutions to Today's Transportation Problems; I-394, The Minneapolis Experience; Katy Transitway; View from the Sky; Congressional Perspective on Transportation Funding in the 1980s. Workshops were organized in 4 sessions: Planning, Design and Evaluation of HOV Access Facilities; HOV System Elements Workshops; HOV Operational Issues; and Public Policy and Support. The conference ended on a positive note, namely--that HOV facilities fit in at all levels and in all circumstance of the overall transportation system. HOV systems provide a high service and moderate cost alternative to other modes.			
17. Key Words HOV FACILITIES CONFERENCE DEMAND MANAGEMENT TRANSITWAYS PLANNING DESIGN EVALUATION CONFERENCE PROCEEDINGS RIDERSHIP NATIONAL OVERVIEW CASE STUDIES		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 151	22. Price A07

02. Traffic Mitigation

Technical Report Documentation Page

1. Report No. UMTA-DC-08-9087-89-1	2. Government Accession No. (NTIS) PB 90-164344/AS	3. Information System UMTRIS/UMTA Section 8	
4. Title and Subtitle Status of Traffic Mitigation Ordinances. Volume 1. Final Report.		5. Report Date August 1989	
		6. DOT Report Number	
7. Author(s)		8. Performing Organization Report No.	
9. Performing Organization Name and Address Peat Marwick Main & Co.* 8150 Leesburg Pike, Suite 800 Vienna, Virginia 22182		10. Grant or Project No. UMTA-DC-08-9087	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered Vol. 1 of 2 Vols. Final/Status Report	
		14. Sponsoring Agency Code UTS-10	
15. Supplementary Notes *In association with RL Oram Associates.			
16. Abstract Transportation demand management (TDM), also referred to as transportation system management (TSM) or traffic mitigation ordinances have emerged as a compelling new strategy for reducing automobile congestion related to commuting. This final report discusses the emergence and status of traffic mitigation ordinances as a strategy for reducing automobile congestion vis-a-vis commuting. It is based on a review of traffic mitigation ordinances drafted or adopted in 20 selected local jurisdictions throughout the United States as of December 1988. This 2-volume report is a good resource for local governments and will assist local jurisdictions in developing a traffic mitigation ordinance that addresses traffic congestion problems. The final report on the Status of Traffic Mitigation Ordinances consists of 2 separate volumes. Volume 1 presents and discusses some of the major components of traffic mitigation ordinances and important issues in the development and application of ordinances as a means of reducing traffic congestion. Volume 1 also documents the summaries of the 20 traffic mitigation ordinances (case studies) reviewed during this research study. Volume 2, Appendix, documents copies of the actual ordinances discussed in Volume 1 of this study. In this report, traffic mitigation ordinances are viewed as one method that may have merit as part of a broad-based transportation and land use strategy including transportation system development, transportation system management, growth management policies, zoning and other TDM approaches.			
17. Key Words Traffic Congestion Traffic Mitigation Ordinances Traffic Demand Management Regional Approach TSM Strategies Case Studies		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 149	22. Price (NTIS) A07

02. Traffic Mitigation

Technical Report Documentation Page

1. Report No. UMTA-DC-08-9087-89-2	2. Government Accession No. (NTIS) PB 90-164351/AS	3. Information System UMTRIS/UMTA Section 8	
4. Title and Subtitle Status of Traffic Mitigation Ordinances. Volume 2. Appendix.		5. Report Date August 1989	6. DOT Report Number
		8. Performing Organization Report No.	
7. Author's-			
9. Performing Organization Name and Address Peat Marwick Main & Co.* 8150 Leesburg Pike, Suite 800 Vienna, Virginia 22182		10. Grant or Project No. UMTA-DC-08-9087	11. Contract No.
		13. Type of Report and Period Covered Vol. 2 of 2 Vols. Status/Case Studies	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code UTS-10	
		15. Supplementary Notes *In association with RL Oram Associates.	
16. Abstract Transportation demand management (TDM) ordinances, also called transportation system management (TSM) or traffic mitigation ordinances (TMO) have emerged as a new strategy for reducing automobile congestion related to commuting. The emergence of the TDM ordinance is rooted in a range of transportation policies and activities--ranging from TSM strategies (management-oriented), to Brokerage (market-based transit organizations) to transportation management associations (corporate involvement). TDM ordinances may apply to employers, developers and property owners, office/industrial complexes, retail and residential developments. This final report presents and discusses the emergence and status of traffic mitigation ordinances as a way of reducing automobile traffic congestion vis-a-vis commuting. It is based on a review of TMOs drafted or adopted in 20 selected local jurisdictions throughout the U.S. as of December 1988. This final report consists of 2 separate volumes. Volume 1 discusses some of the major components of TMOs and the important issues in the development and application of ordinances as a means of reducing traffic congestion. In addition, Volume 1 documents summaries of the 20 TMOs (case studies) reviewed during this study. Volume 2, Appendix, documents copies of the actual ordinances discussed in Volume 1. In this report, traffic mitigation ordinances are viewed as one method that may have merit as part of a larger transportation and land use strategy that includes transportation system development, TSM, growth management policies, zoning, and other TDM approaches.			
17. Key Words Traffic Congestion Traffic Mitigation Ordinances Traffic Demand Management Growth Management Regional Approach Local Governments		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 364	22. Price (NTIS) A16

02. Traffic, Mitigation (Center City and Suburban)

Technical Report Documentation Page

1. Report No. UMTA-IL-08-0081-90-1	2. Government Accession No. (NTIS) PB 91-132019	3. Information System UMTRIS/Section 8	
4. Title and Subtitle Access to jobs: Reverse commuting from city to suburbs		5. Report Date October 1990	6. DOT Report Number
7. Author/s Richard Hazlett		8. Performing Organization Report No.	
9. Performing Organization Name and Address Chicago Department of Public Works 320 N. Clark Street, Room 411 Chicago, IL 60610		10. Grant or Project No. IL-08-0081	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered	
15. Supplementary Notes		14. Sponsoring Agency Code	
16. Abstract <p>The 13.1% of Chicagoans who are unemployed could fill positions in suburban Cook County and in Lake and DuPage Counties, if transportation were available. This report focuses on some of the problems associated with getting residents from the Near South and West Side areas, where unemployment levels are high, to five suburban areas where nearly 20,000 Near South and West Side residents already commute.</p> <p>Major findings concerning these city-to-suburb commutes include: Over 43% of the households in the study area have no auto, over twice the regional rate. Waits for connections and walks from bus stops extend travel times by transit to 28 to 107 minutes, compared with 22 to 53 minutes by car. Carpools account for 30% of commutes (almost twice the city rate), but are considered unreliable by employers. City transit and suburban buses have fare parity which make this commute feasible and economical, but time consuming; service and fare changes are needed to make commuter rail service an alternative. Job counselors, unfamiliar with suburban transit services, can not tell job seekers how use those services to get to work sites.</p> <p>Providing city workers with efficient access to suburban employment is a regional problem that will require a coordinated regional solution. Scheduling to shorten waiting time, improved service to employment sites, integrated regional fare structures, and development of information about city-to suburb commuting are among possibilities that should be considered.</p>			
17. Key Words Reverse commuting, employment access, suburban employment centers		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 41	22. Price (NTIS)

02. Traffic Mitigation/Suburban Mobility

Technical Report Documentation Page

1. Report No. UMTA-LA-11-0050-90-1	2. Government Accession No. (NTIS) PB90246802	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Redesigning Local Transportation Service for Improved Suburban Mobility---The Problem of Accessibility for the Elderly and Low Income Residents		5. Report Date May 1990	6. Performing Organization Code
7. Author's Benedict N. Nwokolo		8. Performing Organization Report No.	
9. Performing Organization Name and Address Department of Industrial and Engineering Technology Grambling State University Grambling, LA 71245		10. University Research	
12. Sponsoring Agency Name and Address University Research and Training Program Urban Mass Transportation Administration Washington, D.C. 20590		11. Contract or Grant No. LA-11-0050	13. Type of Report and Period Covered Final Report 1-1-89 - 5-31-90
15. Supplementary Notes		14. Sponsoring Agency Code UTS-30	
16. Abstract This report sorts through the myriad issues surrounding suburban mobility for the tri-cities of Monroe, Ruston, and Grambling, Louisiana. The research also probes the issues of the accessibility of transportation services for differing socio-economic groups of the tri-cities. An empirical investigation showed the extent of transportation problems and existing mode of transportation for the target areas. A linear programming technique for optimum assignment of limited mass transit resources was demonstrated. A procedure for assigning a dollar amount for not providing transportation services for the elderly and the economically disadvantaged captive riders was also demonstrated. Results of the research analysis further showed that a potential market exists for both public or private mass transit new providers for the target area. With suburban traffic conditions worsening in recent years, the study postulated that the land use and physical design characteristics of the suburban workplaces have directly contributed to the decline in suburban mobility by inducing most employees to drive alone to work. Results of the empirical investigation obtained tends to support the above proposition for the study area. The report concluded by listing a number of workable procedures for service redesign which in the long run will lead to significant improvements in suburban mobility at the local level. Finally, the research findings were used to characterize the phenomenal suburban mobility problem of other cities across the nation with similar suburban characteristics as the research target areas.			
17. Key Words Mass Transit, Para-Transit, Captive Riders, Linear Programming, Social Cost.		18. Distribution Statement This document is available to the U.S. public through the National Technical Information Service, Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages	22. Price (NTIS) A07

02. Traffic Mitigation/Suburban Mobility

Technical Report Documentation Page

1. Report No. UMTA-MA-11-0048-90-1	2. Government Accession No. (NTIS) PB 90-239930	3. Information System UMTRIS/UMTA Section 11
4. Title and Subtitle "Intergovernmental Differences in Suburban Transportation Policy"		5. Report Date February 1990
		6. DOT Report Number MIT OSP/CTS
7. Author(s) - R. Gakenheimer, T.F. Humphrey, J.G. Allen, J. Ostler, A. Hsu		8. Performing Organization Report No. OSP 71425
		10. Grant or Project No.
9. Performing Organization Name and Address Center for Transportation Studies M.I.T., Room 1-125 Cambridge, Ma. 02139		11. Contract No. MA-11-0048
		13. Type of Report and Period Covered University Research Final Report
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30
		15. Supplementary Notes

16. Abstract

There are almost always conflicts in the effort to alleviate suburban congestion. Vested interests are different among pro-growth and pro-amenity towns, and between pro-growth towns and state agencies with limited highway budgets. This research examines four cases of suburban transportation planning in the Boston metropolitan area in an effort to identify ways of keeping development benefits and liabilities from being distributed in bulk win-or-lose quantities among the surrounding jurisdictions. Instead we look for ways to distribute benefits and disbenefits equitably.

We conclude that the greatest contribution to solving this program could be state planning legislation that requires compatibility among local jurisdiction plans and between development and infrastructure supply. Such legislation is pending in Massachusetts and already enacted in certain other states. We recommend revenue sharing, transfer of development rights, incremental improvements to transportation networks, and other means by which costs and benefits could be distributed in divisible amounts. We recommend inclusive local coordinating communities that convene developers with local and state officials.

17. Key Words Congestion Planning Suburban Mobility Policy Transportation Case Studies Intergovernmenta. Development	18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650		
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages	22. Price (NTIS) A05

02. Traffic Mitigation/Suburban Mobility

Technical Report Documentation Page

1. Report No. — UMTA-TX-11-0020-90-1	2. Government Accession No. (NTIS) PB 90246794	3. Recipient's Catalog No. TRANSIS/UMTA SECTION 11	
4. Title and Subtitle Developing A Comprehensive Service Strategy to Meet a Range of Suburban Travel Needs		5. Report Date May 26, 1990	6. Performing Organization Code
7. Author(s) Dr. Sandra Rosenbloom		8. Performing Organization Report No.	
9. Performing Organization Name and Address The Graduate Program in Community & Regional Planning School of Architecture Austin, Texas 78712-1160		10. Work Unit No. (TRAIS)	11. Contract or Grant No. UMTA TX-11-0020
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration Office of Technical Assistance & Safety U.S. Dept of Transportation Washington, DC 20590		13. Type of Report and Period Covered University Research	
13. Supplementary Notes		14. Sponsoring Agency Code UTS-30	
14. Abstract <p>This document reports on a study designed a) to identify promising non-traditional transit options for suburban areas, b) to develop a methodology allowing transit operators to both identify promising non-traditional options for their individual community needs and to evaluate the cost-effectiveness of these methods, and, c) to illustrate how this method would actually be implemented, focusing on a 60 square mile highly suburban area in Austin, Texas.</p> <p>The report first describes the "new" suburban environment in which public transit operators must provide service, showing how the increasing suburbanization of jobs and homes has created both work and non-work trips not easily served by traditional transit. The report next describes prototypes of non-traditional services that have been developed and explains the results of a survey of 22 mid-sized cities. The report next describes a six-step service and cost effectiveness methodology, explaining the logic of the process and the type and source of required data. Finally the report describes how this six-step methodology was applied in Austin, Texas.</p>			
17. Key Words Suburban, paratransit, transit planning		18. Distribution Statement Document available to the public through the National Technical Information Service, Springfield, VA 22161	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 139	22. Price (NTIS) A08

1. Report No. UMTA-TX-08-8013-88-4	2. Government Accession No. (NTIS) PB 89-218390	3. Recipient's Catalog No. UMTRIS/UMTA Section 8	
4. Title and Subtitle Planning Guidelines for Suburban Transit Services.		5. Report Date August 1988	6. Performing Organization Code Technical Report 2001-1F
7. Author(s) Earl J. Washington and Robert W. Stokes		8. Performing Organization Report No.	
9. Performing Organization Name and Address The Texas A&M University System Texas Transportation Institute College Station, Texas 77843-3135		10. Grant or Project No. UMTA-TX-08-8013	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Planning Studies Guidelines	
15. Supplementary Notes Technical study title: Public Transportation Services for Suburban Development Patterns.		14. Sponsoring Agency Code UMTA Region 6	
16. Abstract Major activity centers located outside the traditional CBD of American cities have become the principal areas of urban growth in recent years. This evolving land use pattern has resulted in highly dispersed travel patterns that are difficult to serve by conventional public transportation. This report presents a set of general guidelines to assist transit service planners in planning, designing, and implementing route and service changes to capture a larger share of the regional travel market. The objectives of this research were to develop guidelines for: estimating non-CBD oriented travel demands; identifying potential route design and service planning options to meet non-CBD oriented travel demands; and assessing the relative effectiveness of these service alternatives. The report describes several procedures that can be used to identify suburban travel characteristics (origin-destination surveys, journey-to-work data, onboard surveys and others); outlines and reviews alternative routing alignments that may be appropriate for suburban travel patterns (radial network, ubiquitous network, grid network, and timed transfer systems); and discusses evaluation techniques that measure the effectiveness and efficiency of these service alternatives, namely transit performance indicators. In addition, the report presents a specific set of guidelines for implementing suburban transit services, namely, four general steps: Identifying Suburban Travel Patterns; Identifying Alternative Routing Structures; Route Planning Guidelines; and Monitoring and Evaluating Services. This report provides recommendations for selecting the appropriate performance indicators and a list of references.			
17. Key Words Suburban Transit Services Planning Guidelines Activity Centers Route Planning Service Planning Transit Performance Indicators Non-CBD Travel Suburban Travel Patterns Suburban Development UMTA Section 8		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 105	22. Price (NTIS) A05

1. Report No. UMTA-TX-9-2004-89-1	2. Government Accession No. NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 9	
4. Title and Subtitle Transit Study Needs in Texas		5. Report Date September 1989	
		6. Performing Organization Code	
7. Author's: Robert W. Stokes		8. Performing Organization Report No. Technical Report 2004-1F	
9. Performing Organization Name and Address Texas Transportation Institute The Texas A&M University System College Station, Texas 77843-3135		10. Work Unit No.	
		11. Contract or Grant No. Study No. 2-11-89-2004	
12. Sponsoring Agency Name and Address Texas State Department of Highways and Public Transportation; Transportation Planning Division P. O. Box 5051 Austin, Texas 78763		13. Type of Report and Period Covered Final - September 1988 September 1989	
		14. Sponsoring Agency Code URO-6 - Blas Uribe	
15. Supplementary Notes Research performed in cooperation with TX, UMTA. Technical Research Study Title: Development of a Public Transportation Technical Studies Agenda for Texas			
16. Abstract <p>This report presents the results of a survey conducted to identify transit study needs in Texas. The report summarizes the study needs identified from the survey, presents a general prioritization of those needs, and outlines a preliminary study agenda to address these study needs. The results of the survey indicate that the most pressing unmet transit study needs in Texas are in the following general areas: 1) Improving coordination and cooperation between local service providers and state and local transportation agencies; 2) Defining and quantifying the appropriate role(s) of transit in meeting the state's mobility needs; and 3) Developing innovative, broad-based funding strategies for the state's transit systems. The survey respondents also cited the need for studies concerning the development of training and continuing education programs for transit and transportation agency personnel, studies concerning the development and testing of technologies to comply with EPA clean air standards, human resources management, and transit service strategies for serving suburban and low density travel markets.</p>			
17. Key Words Suburban Funding Private Transportation Local Public MPO		18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, Ill. 60201; and University of California-Berkeley.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 44	22. Price

02. Traffic Mitigation

Technical Report Documentation Page

1. Report No. FHWA-SA-90-005	2. Government Accession No. (NTIS) PB 90-206483	3. Recipient's Catalog No. UMTRIS/UTS-30	
4. Title and Subtitle Evaluation of Travel Demand Management (TDM) Measures To Relieve Congestion		5. Report Date February, 1990	
		6. Performing Organization Code	
7. Author(s) J. Richard Kuzmyak, COMSIS Corp. Eric N. Schreffler, Harold Katz and Assoc.		8. Performing Organization Report No.	
9. Performing Organization Name and Address COMSIS Corporation 8337 Colesville Road Suite 1100 Silver Spring, Maryland 20910		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No.	
12. Sponsoring Agency Name and Address Federal Highway Administration 400 7th Street S.W. Washington, D.C. 20590		13. Type of Report and Period Covered	
		14. Sponsoring Agency Code HTO-30	
15. Supplementary Notes The Project Managers for FHWA are: Wayne Berman, Office of Traffic Operations Susan Moe, Office of Planning			
16. Abstract The report summarizes the results of a research study to investigate the effectiveness of Travel Demand Management (TDM) programs. This investigation consisted of the evaluation of a number of existing TDM programs located throughout the United States. The programs, many of which are well known, are primarily employer-sponsored and site specific. These programs are varied in size, setting, motivation, and accomplishments. Some additional programs are featured that present TDM in a central business district environment and in freeway corridors. Together, all the TDM programs presented comprise a fairly representative cross section of contemporary experience with TDM. The study directly measured the quantitative impact of the TDM programs on reducing low-occupancy vehicles trips. The approach was to evaluate each program as a separate case study, using the same set of evaluations tools and guidelines. Vehicle volumes and mode choice evaluations of the programs were prepared whenever data was available. Comparisons were made and inferences drawn between sites that do have a TDM program and those sites that do not. The report presents these case studies as well as overall conclusions on the impact that TDM has on reducing the number of low-occupancy vehicle trips.			
17. Key Words Travel Demand Management, Ridesharing, Employer program, Demand Management		18. Distribution Statement Document is available thru: The National Technical Information Service Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 155	22. Price (NTIS) A06

1. Report No. UMTA-MA-06-0171-89-1	2. Government Accession No. (NTIS) PB 89-231856/AS	3. Information System UMTRIS/UMTA Section 6	
4. Title and Subtitle An Assessment of Travel Demand Approaches at Suburban Activity Centers.		5. Report Date July 1989	
		6. DOT Report Number	
7. Author/s: Kiran Bhatt, and Thomas Higgins		8. Performing Organization Report No. Topic No: 88-UMI	
9. Performing Organization Name and Address K.T. Analytics, Inc. 103 Baughman's Lane, Suite 176 Frederick, Maryland 21701		10. Grant or Project No. UMTA-MA-06-0171	
		11. Contract No. DTRS-57-88-C-00113	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered Final Report Oct. 1988 - April 1989	
		14. Sponsoring Agency Code UTS-10	
15. Supplementary Notes Small Business Innovation Research Program John Durham, UMTA Project Manager.			
16. Abstract <p>Local governments are increasingly turning to demand management or trip reduction strategies, policies and programs to combat traffic congestion. Using various policy instruments, localities are encouraging employers and developers to implement transportation systems management (TSM) and parking management strategies (PM). This study reviews experiences with TSM and PM through employer case studies and synthesis of suburban demand management literature. It provides recommendations to local government decisionmakers and planners on strategy effectiveness and reduction policy instruments. Recommendations are offered about when TSM and PM strategies and policies are appropriate: consideration in selecting policy instruments; suggestions on policy design; and guidance on program monitoring, enforcement, management, costs and timeliness. Recommendations for the Federal Government include development of model ordinances, developer agreements, parking codes and guidelines supportive of local policies; changes in tax law on parking subsidies and parking policies for federal employees; support of Transportation Management Association roles in parking management; coordination with air quality regulations; and future research on suburban successes and failures.</p>			
17. Key Words Suburban Activity Centers Transportation System Management Parking Management Case Studies Strategies Employers Developers Traffic Congestion Demand Management Local Federal Government Policy		18. Distribution Statement - Report Availability Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 46	22. Price (NTIS) A03

1. Report No. UMTA-TX-08-8013-88-2	2. Government Accession No. (NTIS) PB 89-161715/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Evaluation of Employer Distributed Transit Pass Programs in Texas.		5. Report Date February 1988	
		6. Performing Organization Code	
7. Author(s)		8. Performing Organization Report No. Technical Report No. 1084-1F	
9. Performing Organization Name and Address The Texas A&M University System Texas Transportation Institute College Station, Texas 77843-3135		10. Grant or Project No. UMTA-TX-08-8013	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Planning Study Final Report	
		14. Sponsoring Agency Code UMTA Region 2	
15. Supplementary Notes			
16. Abstract <p>This report reflects the view that the concept of selling and distributing transit passes through employers is an idea whose time has come. The transit agencies studied perceive these programs to be worthwhile investments for encouraging transit acceptance and use while lowering employee commuting costs and reducing the need for activity center parking. This study was undertaken to evaluate the types of employer distributed transit pass programs currently in operation in major Texas cities and selected cities outside Texas. The information presented in this report will assist transit agencies and employers in implementing new (or improving existing) employer distributed transit pass programs. This report presents the results of a detailed analysis of the types of employer distributed transit pass programs implemented by transit agencies in 5 Texas cities--Dallas, Houston, Fort Worth, San Antonio, and Austin. Project information includes the experience of operating such programs in Seattle and Denver, published materials including the demonstration results of projects implemented in Sacramento, CA, Jacksonville, FL, and Duluth, MN. The basic intent of this investigation was to: identify the types of programs in operation; determine the impacts of programs on transit agencies, employers and employees; and document the findings in order to assist transit agencies and employers in implmting employer distributed transit pass programs.</p>			
17. Key Words UMTA Section 8 Planning Employer Distributed Transit Pass Employer Subsidized Program Fare Prepayment Evaluation Case Study Survey Impacts Texas Regional Transit		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 194	22. Price (NTIS) A08

1. Report No. UMTA-MA-06-0179-88-1	2. Government Accession No.(NTIS) PB 89-151583	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle Deep Discount Fares: Building Transit Productivity with Innovative Pricing.		5. Report Date August 1988	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) R.L. Oram		10. Work Unit No. (TRAIS)	
9. Performing Organization Name and Address R.L. Oram Associates* 160 West 87th Street New York, New York 10024		11. Contract or Grant No. UMTA-MA-06-0179	
		13. Type of Report and Period Covered Final Report	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UBP-30	
		15. Supplementary Notes *In association with Charles River Associates.	
16. Abstract "Higher ridership and higher revenues as a consequence of a fares change" is the result of this new approach to public transit pricing. This report reviews a new approach to transit pricing--Deep Discount Fares (DDF)--that holds major promise for increasing transit productivity, for easing and even reversing the negative relationship between fare level and ridership. It is a strategy built on building commitment to transit use through substantial discounts on prepaid tickets or tokens. These prepaid discounts, minimum of 25 percent of base fare, are achieved either by raising cash fares to create a significant differential between the cash and ticket, or by reducing the ticket price. Tickets are sold in a minimum bulk-purchase quantity (10-ride strips). The new strategy, already demonstrated in small, medium, and large cities, enables transit operators to increase both revenues and ridership simultaneously. The key research findings focus on the frequency and duration of transit use and on the frequency of ridership turnovers--factors vital to understanding transit market. This report consists of 2 parts. Part 1 reviews the market research and theoretical background of the concept and the experience to date. Applications of the DDF concept in a small city (Lafayette, IN), medium-size city (Allentown, PA), and a large city (Milwaukee, WI) are reviewed and documented in this report. Part 2 suggests a range of applications of the strategy to help guide local assessment and implementation of deep discount pricing changes. Benefits of the deep discount strategy for transit operators, customers, and the general public are charted out, as well as the impressive impacts on productivity.			
17. Key Words Deep Discount Fares Innovative Pricing Strategy Market Research Discount Fares Higher Revenues Higher Ridership Case Studies Strategic Plan Change FairSaver Coupon Fare Structure		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 90	22. Price A05

04. Fares/Pricing & Service Innovations

1. Report No. UMTA-MD-06-0093-85-1		2. Government Accession No. PB90-105529/AS		3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle A Manual For Planning and Implementing a Fare Change				5. Report Date August 24, 1984	
				6. Performing Organization Code RR 167-1	
7. Author(s) Patrick D. Mayworm, Armando M. Lago, Sue F. Knapp				8. Performing Organization Report No.	
9. Performing Organization Name and Address Ecosometrics, Incorporated 4715 Cordell Avenue Bethesda, Maryland 20814				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No. DTUM60-82-C-72148	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590				13. Type of Report and Period Covered	
				14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes Office of Management Research and Transit Services Service & Methods Division					
16. Abstract <p>Transit fare policy is determined by public bodies on the basis of their understanding of both the transit agency's needs and the general population's needs and preferences. This manual is designed to assist senior transit managers and transit board members in planning and implementing fare changes. The manual outlines the process that should be undertaken to ensure that the most efficient and equitable fare plans are submitted to policy-makers for approval. It is then up to the board members to use their political discretion in adopting a plan.</p> <p>This manual is divided into seven chapters reflecting the sequence of events that generally transpire when planning a fare change including; a description of the data that should be assembled and how they can be managed; a review of the fare options that are available to most transit agencies; a description of how to select the appropriate fare plan to meet the specific objectives of the transit agency; and a description of the steps that should be followed in implementing and evaluating a fare change. It is important to understand that this manual describes a process of fare evaluation and selection and not simply the mechanics of deciding how high the fare should be raised. The authors hope that these guidelines will provide managers and policy-makers with the background and tools to assist them in designing fare changes that are efficient and equitable.</p>					
17. Key Words transit fares, elasticities, pricing policy, fare collection, distance-based fares, zone fares, time of day fares, fare increases.			18. Distribution Statement Available to the public through the National Technical Information Service Springfield, Virginia 22161		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages	22. Price A05

04. Fares/Pricing & Service Innovations

Technical Report Documentation Page

1. Report No. UMTA-MD-06-0116-83-1	2. Government Accession No. (NTIS) PB 90-145657/AS	3. Information System UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Transit Fare Prepayment: A Guide for Transit Managers.		5. Report Date January 1983	6. DOT Report Number
		8. Performing Organization Report No. RR 125-8	
7. Author(s) PD Mayworm, and AM Lago		10. Grant or Project No. UMTA-MD-06-0116	
9. Performing Organization Name and Address Ecosometrics, Incorporated 4715 Cordell Avenue Bethesda, Maryland 20814		11. Contract No. DOT-UT-80005	
		13. Type of Report and Period Covered Manual/Guide	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes	
16. Abstract <p>Transit fare prepayment programs grew rapidly during the past decade with most companies today offering riders several prepayment options. This growth has not been without its costs. The purpose of this manual is to provide transit managers with the information and tools necessary to make informed decisions on the design and pricing of fare prepayment plans. This manual presents information on the true benefits and costs of operating fare prepayment plans. Guidelines on selecting the appropriate plans and distribution methods are presented. The manual also presents guidelines on pricing fare prepayment plans in order to capture passenger revenues. A series of straightforward equations are also provided to assist the transit manager in estimating the impacts of changes in a fare prepayment program. This report contains a glossary of terms, a bibliography and a discussion of some of the fare prepayment projects that have been demonstrated.</p>			
17. Key Words Fare Prepayment Guide Transit Managers Pricing Fare Collection Costs Passes Tickets Tokens Bus Operations Impacts Fare Prepayment Plans Manual Guide UMTA Section 6		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 174	22. Price (NTIS) A08

1. Report No. UMTA-GA-11-0020-90-1	2. Government Accession No.-NTIS PB 91-153130	3. Recipient's Catalog No. UMTRIS/Section 11	
4. Title and Subtitle The Impact of the Overmatch Initiative: An Assessment of Intergovernmental Finance in the Transit Industry		5. Report Date December, 1990	6. Performing Organization Code
7. Author(s) Michael Meyer, Catherine Ross, Erik Ferguson		8. Performing Organization Report No.	
9. Performing Organization Name and Address Georgia Institute of Technology Atlanta, Georgia 30332		10. Work Unit No. (TRAIS)	11. Contract or Grant No.
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration University Research and Training Program 400 7th Street, S.W. Washington D.C. 20590		13. Type of Report and Period Covered Final Report January-December, 1990	
15. Supplementary Notes		14. Sponsoring Agency Code	
16. Abstract <p>The Urban Mass Transportation Administration announced in 1989 an initiative to encourage local transit agencies to provide a greater local share for capital projects. Known as overmatch, this greater local share was expected to result in greater local flexibility in transit planning and greater consideration in Federal review and decisions regarding capital project approvals. This research project provides a history of this Overmatch Initiative. The report examines the transit finance literature and the economics/political science literature relating to greater local matching for capital projects. The research also examined the Section 15 data base to determine if this source of information could be used to reflect overmatch trends among transit agencies. A national survey of transit agencies was conducted to assess the transit industry's reaction to the Overmatch Initiative. Several case studies of local transit response to the Initiative were conducted and the results were used to assess the overall effectiveness of the new policy. The research concludes that several transit agencies were overmatching before the Initiative was announced mainly to avoid Federal regulations and time delays. Few transit agencies used financial models to identify long-term systems costs. Many transit officials concluded that the requirement for cash overmatch was extremely limiting. The research project recommends that UMTA shift the overmatch focus away from individual projects to regional, programmatic perspectives. UMTA should also take steps to require long-range, financial planning in project planning. Importantly, the report recommends a change in the current Federal program matching requirements. It is recommended to lower Federal matching ratios to 50-50 (or 60-40) with additional funds made available to those communities that meet some special "need" criteria.</p>			
17. Key Words Transit Finance Intergovernmental Relations Overmatch Policy Federal Transit Policy		18. Distribution Statement National Technical Information Service Springfield, Virginia 22161	
19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages 5	22. Price A06

05. Financing

Technical Report Documentation Page

1. Report No. UMTA-MA-08-9018-89-1		2. Government Accession No. (NTIS) PB 90-219270		3. Recipient's Catalog No. UMTRIS/UMTA Section 8	
4. Title and Subtitle Financial Planning Guide for Transit				5. Report Date April 1989	
				6. Performing Organization Code	
7. Author's D. Fleishman, M. Connors, J. Pearson, G. White				8. Performing Organization Report No.	
9. Performing Organization Name and Address Multisystems, Inc. 1050 Massachusetts Avenue Cambridge, MA 02138 *				10. Grant or Project No. UMTA-MA-08-9018	
				11. Contract No. DTUM60-84-C-71260	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590				13. Type of Report and Period Covered Final Report Financial Planning Guide	
				14. Sponsoring Agency Code URT-41	
15. Supplementary Notes * performed in conjunction with: Morgan Stanley & Co. Price Waterhouse Public Financial Management, Inc. 1251 Avenue of Americas 1801 K Street NW 2000 Walnut Street New York, NY 10020 Washington, DC 29996 Philadelphia, PA 19103					
16. Abstract <p>The <u>Financial Planning Guide for Transit</u> presents the details of the overall financial planning process and the procedures that make up the process. The Guide is designed to aid public agencies and interested private parties in the preparation of comprehensive and realistic financial plans -- for new capital investments, recapitalization efforts, and the ongoing operation of existing services. The major elements of the Guide are:</p> <ul style="list-style-type: none"> • definition of the financial planning process, including the relationship between financial analysis and other planning functions, procedures for identifying sources of revenue, administrative/institutional arrangements and responsibilities in transit financing, and the types of information needed at each planning level; • identification of how cost and revenue projections are developed for financial planning purposes, including identification of financial forecasting techniques, selection and projection of new sources of revenue, and performance of sensitivity analyses, and • description of the development and implementation of a financial plan, including discussion of market financing mechanisms and requirements, how dedicated revenue sources and market financing programs are developed, the development of financing packages, and performance of financial capability analysis. <p>The Guide has been designed to be useful both in meeting UMTA's planning and reporting requirements (e.g., in demonstrating financial capacity) and in guiding local agencies in evaluating and addressing their own financing needs either in providing the "local match" to Federal funds or in developing sufficient financing to proceed without Federal funds, if such an approach is considered feasible.</p>					
17. Key Words Financial planning, financial capacity analysis, cash flow analysis, revenue forecasting, cost estimation			18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161 - telephone 703/487-4650		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 215	22. Price (NTIS) A10

05. Financing

Technical Report Documentation Page

1. Report No. UMTA-VA-11-0017-89-1	2. Government Accession No. (NTIS) PB 90-115692/AS	3. Information System UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Financial Incentives in the Transit Industry.		5. Report Date September 1989	6. DOT Report Number
		8. Performing Organization Report No.	
7. Author(s) D. Scott, S.E. Markham, W.D. Murry		10. Grant or Project No. UMTA-VA-11-0017	
9. Performing Organization Name and Address Virginia Polytechnic Institute & State University Barringer Center, Department of Management Blacksburg, Virginia 24061-0233		11. Contract No.	
		13. Type of Report and Period Covered Final Report University Research Workshops	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes	
16. Abstract <p>In response to pressures for increased productivity and better quality of service, private and public sector organizations are re-examining the use of financial incentive programs (FIPs). FIPs are management systems linking valued rewards to desired behaviors; they make employees' pay contingent upon individual or group performance. This financial workshop was designed to be a hands-on experience where transit managers could learn about FIPs and discuss implementation strategies. The program also encouraged participants to share their experiences and to complete a questionnaire about their use and experience with FIPs. This document provides an overview of the three, two-day FIP workshops conducted for the transit industry in Philadelphia, PA, Indianapolis, IN and San Francisco, CA. The three workshops were attended by 60 participants who represented 32 transit authorities. Section 1 of this report presents a brief review of FIPs in the transit industry, workshop goals and a brief outline of workshop design. Section 2 summarizes the contents of the workshop including the specific objectives and the seven sessions of the program. Section 3 presents and analyzes FIP data collected from the thirty transit authorities that participated in the 3 workshops. Section 4 summarizes the observations of the use of FIPs that were offered in Philadelphia, Indianapolis and San Francisco, as well as conclusions and recommendations regarding the future direction of FIPs in the transit industry. Overall, the participants at the 3 FIP workshops reported having positive experiences with FIPs.</p>			
17. Key Words Financial Incentive Programs Workshop Management Human Resources Employee Performance Productivity Merit Pay Quality of Service Benefits Costs FIP Gainsharing UMTA Section 11 Regional Workshops		18. Distribution Statement - Report Availability Available to the Public through the National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 28	22. Price (NTIS) A03

1. Report No. UMTA-UGM-20-90-1	2. Government Accession No. (NTIS) PB 91111906	3. Information System UMTRIS/UMTA Section 20	
4. Title and Subtitle Report on Funding Levels and Allocations of Funds Report of the Secretary of Transportation to the U.S. Congress		5. Report Date June 1990	6. DOT Report Number
7. Author(s) U.S. Dept. of Transp./UMTA		8. Performing Organization Report No.	
9. Performing Organization Name and Address Samuel Zimmerman Office of Grants Managements Department of Transportation/UMTA 400 7th St. S.W., UGM-20; Washington, D.C. 20590		10. Grant or Project No.	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered Final Report - June 1990	
15. Supplementary Notes		14. Sponsoring Agency Code UGM-20	
16. Abstract This is the annual report called for under Section 304 of the Federal Mass Transportation Act of 1987. This provision added to Section 3 of the Urban Mass Transportation Act a new subsection (j) entitled "Report on Funding Levels and Allocations of Funds." Section 3 is the discretionary capital grant program of the Urban Mass Transportation Administration. With respect to allocation of Section 3 funds, the 1987 Act also added a new subsection 3(k) which specifies that of the amounts available for fiscal years 1987, 1988, 1989, 1990 and 1991. This report is a collateral document to the proposed Fiscal Year 1991 Federal Budget as submitted by the President. It is meant to be a constructive element in the administration of the urban mass transportation program, enriching the information exchange between the executive and legislative branches at the beginning of the appropriations cycle for the next succeeding fiscal year.			
17. Key Words Section 3 Funding Rail Modernization Bus Systems New Starts Program		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 83	22. Price (NTIS) A06

1. Report No. FHWA/PL/85/004	2. Government Accession No. (NTIS) PB 86-126018	3. Recipient's Catalog No. UMTRIS	
4. Title and Subtitle Site Impact Traffic Evaluation (S.I.T.E.) Handbook		5. Report Date January 1985	6. Performing Organization Code
7. Author(s) C. Richard Keller, Joe Mehra		8. Performing Organization Report No.	
9. Performing Organization Name and Address KELLERCO Two Tysons Corner Center McLean, Virginia 22102		10. Work Unit No. (TRAIS)	11. Contract or Grant No. DTFH61-83-C-00146
12. Sponsoring Agency Name and Address U.S. Department of Transportation, Federal Highway Administration, Office of Highway Planning Institute of Transportation Engineers		13. Type of Report and Period Covered Final Report Sept. 1983 to Jan. 1985	
15. Supplementary Notes FHWA Contract Manager: L. A. Chimini		14. Sponsoring Agency Code	
16. Abstract The study regarding the analysis and use of existing trip generation rates resulted in two reports: * "Site Impact Traffic Evaluation (S.I.T.E.) Handbook" This report documents the site access study process in detail. As noted in the report, the trip generation estimation procedure is a critical step in the seven phase site access study. Four case studies are presented that demonstrate the use of trip generation rates and analyze the sensitivity of site related traffic to trip rates, trip distribution patterns and other key variables. * "Development and Application of Trip Generation Rates" This report presents an overview of the data sources on trip generation rates. Updated trip generation rates are presented along with factors for adjusting trip rates due to variations in residential characteristics. The use of trip rates is described. While each of the two reports is an independent document, they complement each other, and the user would benefit from reading both reports.			
17. Key Words Site Access, Traffic Impact, Trip Generation, Trip Distribution, Trip Assignment, Level of Service		18. Distribution Statement Document is available to the public through the National Technical Information Service, Springfield, Virginia 22151	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 98	22. Price A05

1. Report No. UMTA-KS-11-0004-90-1	2. Government Accession No. (NTIS) PB 91-104455/AS	3. Information System UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Equipment Maintenance Management for Rural and Specialized Transit Systems. Guide to Development and Implementation of Comprehensive Vehicle Maintenance Procedures.		5. Report Date June 1990	6. DOT Report Number
7. Author(s) J. Lee and P. Weaver		8. Performing Organization Report No.	
9. Performing Organization Name and Address Kansas University Transportation Center, 2011 Learned Hall Lawrence, Kansas 66045		10. Grant or Project No. KS-11-0004	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered University Research Manual Final Report	
15. Supplementary Notes		14. Sponsoring Agency Code UTS-30	
16. Abstract <p>This report affirms that quality of service and cost-efficient delivery of service are two of the most important goals of a rural or specialized transportation program. The overall goal of the maintenance management program is to improve safety and contribute to cost-effective, systematic, and interruption-free transit operation, as well as to extend vehicle life for systems. The stated objectives include the following: step-by-step procedures for establishing a comprehensive maintenance program; recommendations for preventive maintenance; guidelines for determining replacement schedules; and procedures for monitoring vehicle performance. The purpose of this 10 chapter manual is to provide a guide to transit managers and maintenance personnel to develop a comprehensive maintenance management program for rural transit systems. The intent is to assist maintenance managers in developing an adaptive program for rural system within the framework of available resources. The manual is a self-instructional guide and provides step-by-step procedures for implementing a comprehensive equipment maintenance program. It is supported with a videotape highlighting key components of equipment maintenance design for rural agencies, and a microcomputer software package developed as a companion to the procedures outlined. Use of the videotape is explained in the How to Use Manual section of this report. The 3 appendices documented in this manual provide an Annotated Bibliography, Paratransit Vehicle Maintenance (PVM) - A Maintenance Management Software Package, and a Videotape Script - Preventive Maintenance for Rural Transit.</p>			
17. Key Words Rural Transit Manual Equipment Maintenance Management Paratransit Training Package Checklist Maintenance Management Issues Procedures Microcomputer Software Videotape Preventive Maintenance		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 128	22. Price (NTIS) A07

1. Report No. UMTA NC-11-0015-90-1	2. Government Accession No. (NTIS) PB 90-254111AS	3. Information System UMTRIS/UMTA Section 11	
4. Title and Subtitle Coordination of Rural Public Transportation Services in Three Southeastern States		5. Report Date	
		6. DOT Report Number May 1990	
7. Author(s) Erskine S. Walther		8. Performing Organization Report No.	
9. Performing Organization Name and Address Transportation Institute North Carolina A&T State University Greensboro, North Carolina 27411		10. Grant or Project No. UMTA-NC-11-0015	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered University Research	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes			
<p>16. Abstract</p> <p>This study contains the results and findings of a three state study of coordination among Urban Mass Transportation Administration, U.S. Dept. of Transportation Section 18 providers of public transportation and U.S. Dept. of Health and Human Service funded providers of human service client transportation.</p> <p>This study examines eight coordinated Section 18 transportation systems in the states of Alabama, Georgia and North Carolina. In-depth case studies of each system examine the processes which developed the existing coordinated system and the operational and financial aspects of the existing system. Additionally, coordination efforts at the state level are examined in all three states. The report also examines what constitutes coordination and suggests three operative definitions of the term. Case studies are provided which explore system specifics which illustrate each of the suggested definitions.</p>			
17. Key Words Coordination Financial Section 18 Elderly & Handicapped Human Service Agencies Rural Operational		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 136	22. Price (NTIS) A06 - \$23.00

07. Rural Transportation

Technical Report Documentation Page

1. Report No. UMTA-ND-11-0001-89-1	2. Government Accession No. (NTIS) PB 90-780396/AS	3. Information System UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Training Courses for Small Urban and Rural Transportation Management. Volume 1.		5. Report Date December 1989	6. DOT Report Number
		8. Performing Organization Report No. .	
7. Author(s) Ramey O. Rogness		10. Grant or Project No. UMTA-ND-11-0001	11. Contract No.
9. Performing Organization Name and Address North Dakota State University Research Administration Fargo, North Dakota 58105		13. Type of Report and Period Covered Workshop Training Course University Research Vol. 1 of 2 Vols.	
		14. Sponsoring Agency Code UTS-30	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		15. Supplementary Notes	
16. Abstract The objective of this project was to develop training materials for small urban and rural transit managers/providers and conduct a series of pilot workshops on microcomputer applications to familiarize them with micro-computer use. This 2-volume report documents the training materials developed and used in both workshops. The series of application areas and software demonstrations were targeted for rural and very small urban managers who had little staff support or were unable to attend national meetings and conferences because of funding, distance or staffing. Volume 1 documents the rural transportation management workshop. The course covered vehicle selection, vehicle routing and scheduling, hands-on introduction to computer experience along with demonstrations and usage of application programs. Volume 2 presents training materials developed for the small urban transit managers and transportation providers. Applications areas were selected to illustrate basic needs. Additional microcomputer features useful to managers were also presented such as software programs and reference materials.			
17. Key Words Transit Operators UMTA Section 11 Management Rural Transportation Workshop Training Materials Software Small Urban Transportation Microcomputer Usage Applications		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 128	22. Price (NTIS) A07

07. Rural Transportation

Technical Report Documentation Page

1. Report No. UMTA-UTS-30-89-1		2. Government Accession No. (NTIS) PB90-115668/AS		3. Information System UMTRIS	
4. Title and Subtitle Reconnecting Rural America: Report on Rural Intercity Passenger Transportation.				5. Report Date July 1989	
				6. DOT Report Number	
7. Author(s) Eileen S. Stommes				8. Performing Organization Report No.	
9. Performing Organization Name and Address US Department of Agriculture* Office of Transportation, PO Box 96575 Washington, DC 20090-6575				10. Grant or Project No.	
				11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation* Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590				13. Type of Report and Period Covered National Strategy Regional Symposia	
				14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes *The dissemination of this national report was sponsored by UMTA in cooperation with the USDA Office of Transportation.					
16. Abstract <p>In 1987 a new effort to reconnect rural America began. It recognizes the local and intercity services offered by transportation providers throughout the nation in addressing the transportation needs of rural residents, and it emphasizes the importance of linking available services into a national system. Leadership in this effort has been provided by the United Bus Owners of America, UMTA, and the USDA Office of Transportation. This national report summarizes the results of 3 regional symposia--North Central, Des Moines, Iowa; Eastern, Annapolis, Maryland; and Western Regional Symposium, San Francisco, California--and it was used at the National Conference on Rural Intercity Passenger Transportation in Omaha, Nebraska, August 22-24, 1988. The symposia process was designed to gather grassroots input on rural passenger transportation needs and how those needs are being met in different parts of the country. This report presents the issues and concerns of those involved in rural intercity passenger transportation throughout the nation. It summarizes the 9 components key to the development of a national strategy for reconnecting rural America: public-private cooperation, mobilization of support, community participation, defined government roles, linking of services; market research and development, diversification of funding sources, resource management, and identification and elimination of barriers. This report demonstrates how service is currently being provided and reiterates the need for coordination and cooperation among all those involved in rural passenger transportation.</p>					
17. Key Words Reconnecting Rural America National Strategy Regional Symposia Rural Economy Population Trends Structural Transformation Deregulation Public-Private Cooperation Community Intercity Passenger Service			18. Distribution Statement - Report Availability Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650		
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified		21. No. of Pages 129	22. Price (NTIS) A07

1. Report No. UMTA-NY-08-0150-90-1	2. Government Accession No. NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Development of Demand Responsive Paratransit Services		5. Report Date March 1990	
		6. Performing Organization Code	
7. Author(s) Comsis Corporation		8. Performing Organization Report No.	
9. Performing Organization Name and Address 2275 Swallow Hill Road Pittsburgh, Pa. 05220		10. Work Unit No.	
		11. Contract or Grant No. NY-08-0150	
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration U.S. Department of Transportation Washington, D.C. 20590		13. Type of Report and Period Covered Final Report - March 1990	
		14. Sponsoring Agency Code URO-2 Larry Penner	
15. Supplementary Notes . See block no. 18 below for report availability information.			
16. Abstract The Town of Huntington, in Suffolk County, New York, has engaged COMSIS Corporation to conduct a study entitled: Development of Demand Responsive Paratransit Services. The primary objective of the study was to develop a plan for improving public transportation services within the Town of Huntington. The focus was on alleviating existing service deficiencies in the most cost-effective manner through use of integrated demand-responsive services, coordinated with the Town's fixed-route bus service known as Huntington Area Rapid Transit (MART). Service to those citizens who are not able to make use of existing fixed-route bus service was a main thrust of the study. Additionally, the use of private enterprise for operation of the demand-responsive service was to be analyzed.			
17. Key Words Public Transportation Paratransit Private Enterprise		18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, Il 60201; and University of California-Berkeley.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 57	22. Price

1. Report No. UMTA-NY-08-0154-90-2	2. Government Accession No. (NTIS) PB-91-121079	3. Information System UMTRIS/UMTA Section 8	
4. Title and Subtitle Scheduling Review of the Westchester County Bee-Line		5. Report Date May 1990	
		6. DOT Report Number	
7. Author's ATE Management and Service Company, Inc.		8. Performing Organization Report No.	
9. Performing Organization Name and Address 610 Vine Street, Suite 800 Cincinnati, Ohio 45202		10. Grant or Project No. NY-08-0154	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered	
		14. Sponsoring Agency Code Larry URO-2 Penner	
15. Supplementary Notes			
16. Abstract Westchester County bus service is operated through a unique joint public private operation. The County provides the vehicles and manages the operation. The actual operation of the vehicles is contracted through private operators, of which Liberty Lines Transit, Inc., is by far the largest service provider. Paratransit service within Westchester County was formerly provided by two private operators, Ecole and American Ambulette, both based in Yonkers. Ecole served the western half of the County; American Ambulette served the eastern portion. In the spring of 1989, Westchester County issued a request for bids to operate the service effective September 1, 1989. Service is being provided curb-to-curb. Driver assistance is limited to helping the passenger board or alight the vehicle. This review is designed to identify the degree to which the system is fulfilling its objectives, as well as the organization's efficiency in utilizing its resources to meet those objectives. Current or potential problem areas were reviewed. The resulting recommendations are then designed to address each specific weakness with the twofold purpose of solving or preventing problems and implementing procedures to assist management in monitoring and controlling the function in the future.			
17. Key Words Paratransit Bus Commuter Rail		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 165	22. Price (NTIS) - A09

1. Report No. UMTA-PA-06-0101-89-1	2. Government Accession No. (NTIS) PB 90-153842/AS	3. Information System UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Shared-Ride Paratransit Performance Evaluation Guide.		5. Report Date November 1989	6. DOT Report Number
		8. Performing Organization Report No.	
7. Author(s) Miller, James H		10. Grant or Project No. UMTA-PA-06-0101	
9. Performing Organization Name and Address The Pennsylvania State University Research Building B, Penna. Transportation Inst. University Park, Pennsylvania 16802		11. Contract No.	
		13. Type of Report and Period Covered University Research Performance Evaluation Guide Shared-Ride Paratransit	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes	
16. Abstract <p>Managers of shared-ride paratransit systems are being called upon to improve the cost-effectiveness of these services, and to provide a report card on the performance of paratransit systems to funding agencies, elected officials, and others to ensure that their funds are being wisely spent. This guide is designed to be a resource for shared-ride paratransit system managers to help them develop a performance procedure for their operation (private shared-ride taxi service, human service transportation system, or specialized-transit system operated by a public agency). The six-step performance evaluation procedure described in this report is applicable to rural and urban shared-ride paratransit systems. It can be used for 2 major purposes: to provide managers with performance indicators to diagnose and correct problems (internal management); and to allow constructive communication between system management and constituencies. This guide is organized into 4 sections. Section 1 (chapters 2-3) presents the theory and general framework of the performance evaluation methodology. Section 2 (chapters 4-5) presents data collection information including service-specific cost statistics. Section 3 (chapter 6) describes corrective actions to correct substandard performance; and the final section (chapter 7) presents a case study that applies the methodology to a typical system. To ease the comparison of the individual shared-ride system to similar systems, peer data from Pennsylvania and other States are presented in the appendix. A glossary of terms is also included in the appendix of this report.</p>			
17. Key Words UMTA Section 6 Paratransit Urban Rural Systems Shared-Ride Taxi Performance Performance Evaluation Indicators Guide Management Human Services Specialized-Transit Methodology		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 98	22. Price (NTIS) A05

1. Report No. UMTA-DC-08-0016-88-1	2. Government Accession No. (NTIS) PB 89-190607	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Unified Regional Snow Emergency Plan for the Washington Metropolitan Area. Regional Snow Priority Routes		5. Report Date October 1988	6. Performing Organization Code
		8. Performing Organization Report No. 88805	
7. Author(s) Zelinka, JJ and Rametta, TP		10. Work Unit No. (TRAIS)	11. Contract or Grant No. UMTA-DC-08-0016
9. Performing Organization Name and Address Metropolitan Washington Council of Governments 1875 Eye Street, NW Washington, DC 20006		13. Type of Report and Period Covered Snow Emergency Plan	
		Sponsoring Agency Code UGM-20	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		15. Supplementary Notes This report and the attached Regional Snow Priority Routes Map is also available from the Metropolitan Washington Council of Governments, Washington DC 20006. 202/223-6800. Price \$25	
16. Abstract The purpose of this operations plan is to provide a regional response to snow and ice emergencies in the Washington Metropolitan area. The plan focuses on 4 key operational areas: identification and ability to keep open a network of regional snow priority routes for maintenance of the region's transportation system; establishment and effective operation of a regional communications system during snow emergencies; development of the decision-making process for an early morning "Go, No-Go" delayed opening decision for government offices and private sector places of employment; and for development of public education and public information programs to be implemented prior to snow season. Each of the subject areas, plus weather, is described separately in the Annex section of this report. The plan lists Task Force, Working Group and COG staff members. It provides the rationale for developing the plan, charts-out weather data, and explains the plan's implementation and termination procedures. A map identifying regional snow priority routes is provided as a separate enclosure. Route selection criteria are listed along with lists of personnel engaged in snow clearing operations. This Operations Plan replaces the Unified Regional Snow Emergency Concept Plan 1987-1988 prepared by the Metropolitan Washington COG. Upon receipt of this plan, The 1987 Concept Plan should be discarded.			
17. Key Words Regional Snow Priority Routes Snow Emergency Plan Operations Plan Regional Plan Snow Removal Washington Metropolitan Area UMTA Section 8 Weather Data-Map		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 85	22. Price (NTIS) A06

1. Report No. UMTA-DC-11-0018-89-1	2. Government Accession No. (NTIS) PB 89-200414/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Third Party Contracting by UMTA Grantees. A Transit Training Program.		5. Report Date March 1989	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) Lippert, L.		10. Grant or Project No. UMTA-DC-11-0018	
9. Performing Organization Name and Address The George Washington University School of Government & Business Admin. Washington, DC 20590		11. Contract No.	
		13. Type of Report and Period Covered University Research Final Report 1 of 2 Reports	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes Companion report is titled Third Party Contracting by UMTA Grantees Handbook, UMTA-DC-11-0018-89-2.			
16. Abstract The purpose of this project was to develop and conduct a 4-day procurement course, at the university level, for UMTA grantees working with UMTA Third Party Contracting programs at urban mass transit authorities. The seminar aimed to increase their knowledge, understanding, and perspective of the third party contracting program. Two pilot courses were developed and conducted at George Washington University in January and February of 1989. A course curriculum and handbook was developed that incorporated agency procurement contractual policies, procedures and guidelines of a legal, political, regulatory and procedural nature. The comments and critiques of the 47 students were used to develop the recommendations for the program and are documented in this report. Recommendations called for the institutionalization and implementation of the training program to various locations throughout the U.S. Additional courses, of similar design and structure, were recommended, namely: Cost and Pricing, Small Purchase Procedures and Practices, Warranties, and Contract Administration. This final report summarizes the seminar's approach, analyzes and documents the recommendations. The handbook, under separate cover, provides the principles of procurement policies, procedures, and practices of third party contracting for UMTA grantees. It serves as a ready desk reference book.			
17. Key Words Third Party Contracting UMTA Section 11 UMTA Grantees Training Program Procurement Planning Contracting Negotiating Management Curriculum Handbook		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 49	22. Price (NTIS) A03

1. Report No. UMTA-DC-11-0018-89-2	2. Government Accession No. (NTIS) PB 89-200422/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Third Party Contracting by UMTA Grantees Handbook. A Transit Training Program.		5. Report Date March 1989	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) Ludwig Lippert		9. Performing Organization Name and Address The George Washington University School of Government & Business Administration Washington, DC 20590	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		10. Grant or Project No. UMTA-DC-11-0018	11. Contract No.
		13. Type of Report and Period Covered University Research Handbook 2 of 2 Reports	
15. Supplementary Notes Companion report is titled: Third Party Contracting by UMTA Grantees, Final Report, UMTA-DC-11-0018-89-1		14. Sponsoring Agency Code UTS-30	
16. Abstract The purpose of this project was to develop and conduct a 4-day procurement course, at the university level, for UMTA grantees working with the UMTA third part contracting program at various urban mass transit authorities. Two pilot courses were developed and conducted at George Washington University in January and February of 1989. A course curriculum and handbook was developed that incorporated agency procurement contractual policies, procedures and guidelines of a legal, political, regulatory and procedural nature. Seminar comments and critiques of the 47 participants helped developed the recommendations documented in this report. Recommendations called for institutionalizing and conducting the training program in various locations throughout the U.S. Additional courses, similar in design and structure were also recommended. This handbook was designed as a desk reference book to be used by participants at their workplace. It discusses the principles of procurement policies, procedures and practices of third party contracting for UMTA grantees. The final report (UMTA-DC-11-0018-89-1) summarizes the study's technical approach, analyzes seminar results and provides recommendations for future activities.			
17. Key Words Third Party Contracting Program Procurement Handbook UMTA Grantees University Training Seminar Planning Course Curriculum Contracting Federal Procurement Education UMTA Section 11 Cost & Price Analysis		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 198	22. Price (NTIS) A09

1. Report No. UMTA-MA-06-0175-90-1	2. Government Accession No. NTIS PB 91-153148	3. Recipient's Catalog No. UMTRIS/Section 6	
4. Title and Subtitle PROJECT AND CONSTRUCTION MANAGEMENT GUIDELINES		5. Report Date September 1990	
		6. Performing Organization Code	
7. Author(s) Thomas J. Luglio, Jr.		8. Performing Organization Report No.	
9. Performing Organization Name and Address EG&G Dynatrend Inc. * 21 Cabot Road Woburn, MA 01801		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. DTUM60-84-C-71263	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		13. Type of Report and Period Covered Final 1987-1990	
		14. Sponsoring Agency Code UTS-21	
15. Supplementary Notes * Assisted by: DeLeuw Cather & Company 1133 15th Street, N.W. Washington, DC 20005			
16. Abstract The Urban Mass Transportation Administration (UMTA) sponsored the development of the Project and Construction Management Guidelines to provide a resource for local transit authorities and others concerned with the effective implementation of transit capital projects. The objective of effective project management is to accomplish the scope of work within defined limits of time, cost and quality. The Guidelines have been structured to describe the phases of project planning and development through construction to completion, including revenue service. Fundamental management principles are stressed, and are applied throughout the various project phases. The Guidelines will be useful to planners, engineers, administrators and managers involved with projects related to both rail and bus modes, including the development of new systems and the modernization or expansion of existing systems. Chapter 2 describes the project development process through seven phases: System Planning, Project Planning, Preliminary Engineering, Final Design, Construction, Testing and Start-up and Revenue Service. Chapter 3 presents general principles for managing the project development process organized in seven broad categories: Legal/Institutional Authority, Management and Organization; System Definition/ Configuration/Performance; Financial Requirements/Resources; Management Control Systems; Procurement, Contracts, Disputes and Claims; Safety, Risk Management and Insurance; and Communications. Chapters 4 to 10 apply the management principles, by category, to the specific requirements of each project development phase. Several appendices provide additional detail and examples for the management topics addressed in the body of the Guidelines and include a list of references and a comprehensive bibliography.			
17. Key Words Transit Capital Project Project Management Construction Management Project Development Rail Modernization Bus Facilities		18. Distribution Statement Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 294	22. Price A09

1. Report No. UMTA-MA-08-9023-88-1	2. Government Accession No.(NTIS) PB 89-189591/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Comprehensive Transit Plan for the Virgin Islands. Report of the Secretary of Transportation to the United States Congress.		5. Report Date December 1988	
		6. Performing Organization Code	
		8. Performing Organization Report No.	
7. Author(s)		10. Work Unit No. (TRIS)	
9. Performing Organization Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 7th Street, SW Washington, DC 20590		11. Contract or Grant No. UMTA-MA-08-9023	
		13. Type of Report and Period Covered Report to Congress	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UGM-20	
		15. Supplementary Notes	
16. Abstract <p>The United States Virgin Islands are home to more than 110,000 residents and vacation lands to more than 1,300,000 tourists each year. Increased population and tourism have created problems of deteriorating bus service and traffic congestion. Lack of popular consensus and limited financial resources have hindered improvements. This study of transportation in the Virgin Islands was initiated in response to the mandate contained in Section 355 of the Surface Transportation and Uniform Relocation Assistance Act of 1987. It addresses the mass transportation needs of the Virgin Islands (St. Thomas, St. Croix, and St. John Islands) as well as means to reduce the traffic congestion and improve parking in the urban centers. This report documents the major findings and recommendations of the study. Traffic improvement plans are charted-out along with recommended plan costs. This study reports that added revenues for transit are necessary if transit is to become a viable mode of transportation in the Virgin Islands.</p>			
17. Key Words Transit Plan Virgin Islands Report to Congress UMTA Section 8 St. Thomas St. Croix St. John Traffic Congestion Parking Improvement Plan Implementation		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 28	22. Price A03

1. Report No. UMTA-MA-08-9023-88-2	2. Government Accession No. PB 90-115700/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 8	
4. Title and Subtitle COMPREHENSIVE TRANSIT PLAN FOR THE VIRGIN ISLANDS - Technical Report		5. Report Date January 1989	
		6. Performing Organization Code DTS-49	
7. Author(s) Robert F. Casey, Judith C. Schwenk, and Herbert S. Levinson*		8. Performing Organization Report No. DOT-TSC-UMTA-89-3	
9. Performing Organization Name and Address U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center Cambridge, MA 02142		10. Work Unit No. (TRIS) UM981/U9103	
		11. Contract or Grant No. -	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Grants Management Washington, DC 20590		13. Type of Report and Period Covered Final Report September 1987 - July 1988	
		14. Sponsoring Agency Code UGM-20	
15. Supplementary Notes *Under contract to: U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center Cambridge, MA 02142			
16. Abstract This report contains a description of the elements and recommendations of a transportation study of the islands of St. Thomas, St. Croix, and St. John in the U.S. Virgin Island archipelago. An extensive data collection effort, including traffic volume counts, turning movement counts, a cordon count (Charlotte Amalie), speed and delay runs, transit and taxivan ridership counts, and transit schedule adherence checks, was undertaken to provide the base data for the study. In addition, interviews with Government officials and private citizens concerned with transportation and environmental matters were conducted. St. Thomas transit recommendations included the purchase of new buses, the construction of new maintenance facilities, a substantial increase in service levels, and an open competition for management and operation of the service. For St. Croix, a subsidized taxivan service was recommended on a trial basis on three routes. Highway recommendations included an increase in roadway capacity along the Charlotte Amalie waterfront, reconstruction of critical intersections, traffic engineering improvements, and the implementation of a paid on-street parking program for St. Thomas. Reconstruction of major intersections, several turning movement enhancements, construction of the long-proposed Christiansted bypass, the expansion of off-street parking lots in Christiansted, and on-street parking management changes were recommended for St. Croix. The study endorsed current Department of Public Works plans to rehabilitate sections of major roadways on St. John. Of an institutional nature, it was recommended that a new governmental instrumentality be created to oversee mass transportation (including ferries), parking, and taxi services. Several possible sources of added revenue were discussed as potential means of providing the funding for the needed improvements.			
17. Key Words Transit Plan, Highway Plan, Urban Transportation, Urban Traffic Congestion		18. Distribution Statement DOCUMENT IS AVAILABLE TO THE PUBLIC THROUGH THE NATIONAL TECHNICAL INFORMATION SERVICE, SPRINGFIELD, VIRGINIA 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 310	22. Price A14

Technical Report Documentation Page

1. Report No. UMTA-MD-11-0007-88-1	2. Government Accession No. (NTIS) PB 89-139745/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 11	
4. Title and Subtitle A Guide to Strategic Planning for Transit Properties.		5. Report Date December 1988	
		6. Performing Organization Code	
7. Author(s) Z.A. Farkas, and M. Ayele		8. Performing Organization Report No.	
9. Performing Organization Name and Address Morgan State University Center for Transportation Studies Baltimore, Maryland 21239		10. Grant or Project No. UMTA-MD-11-0007	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Final Report University Research	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes			
16. Abstract Strategic planning is a management tool used to analyze fundamental issues and changes and to aid managers in effecting organizational response to change. It differs from other forms of long-range planning because of its emphasis on environmental change, plan implementation, and monitoring of results. This guide is a reference tool for transit managers who wish to manage strategically. It is a source of information on the evolution and application of strategic planning in various organizations. The objectives of the report are: to explain why transit agencies should plan and manage strategically; to demonstrate how strategic planning works; to present cases of strategic planning in the transit industry; and to recommend a framework for strategic planning. The guide presents and discusses a review of the strategic planning/management literature in terms of participation in strategic planning conferences and workshops, strategic plans and case studies of five transit properties' strategic planning efforts. The five case studies of strategic planning examined in this report are: Alameda-Contra Costa Transit District, New Jersey Transit, Port Authority of Allegheny County Transit, Seattle Metro Transit, and Utah Transit. The first fundamental conclusion resulting from this project was that upper management, particularly the general manager, must make an early and serious commitment of time and resources to the strategic planning effort. This means that management must organize and actively participate in the process to lend it the credibility and direction that only management can give.			
17. Key Words Strategic Planning/Management Case Studies Organization Environmental Analyses Goals Guide Management Framework Implementation UMTA Section 11		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 171	22. Price (NTIS) A08

09. Planning, Policy & Program Development

Technical Report Documentation Page

1. Report No. UMTA-ME-09-0005-89-1	2. Government Accession No. (NTIS) PB 90-184193/AS	3. Information System UMTRIS/UMTA Section 9	
4. Title and Subtitle Transportation Plan for the Shuttle Bus in Saco, Biddeford and old Orchard Beach, Maine.		5. Report Date November 1989	6. DOT Report Number
		8. Performing Organization Report No.	
7. Author's		10. Grant or Project No. UMTA-ME-09-0005	
9. Performing Organization Name and Address TAMS Consultants, Inc.* 38 Chauncey Street Boston, Massachusetts 02111		11. Contract No.	
		13. Type of Report and Period Covered Planning Study	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code UMTA Region 1	
15. Supplementary Notes *Sponsored by Maine Department of Transportation, and Southern Maine Regional Planning Commission.			
16. Abstract The purpose of this project was to assess current and future needs of the shuttle bus system and its users. Unlike other fixed-route public transportation systems in Maine, the shuttle bus has not experienced losses in ridership. It is delivering cost-effective services, operating with a minimum number of personnel, and paying-out below market rate wages to full-time drivers. The shuttle bus is a publicly-operated, fixed-route bus service operated jointly by 3 communities in Maine--Saco, Biddeford and Old Orchard Beach. The system operates through a memorandum of understanding between the 3 communities and has been in operation since 1978. This study consists of 4 parts: Evaluation of current services and operations; Development of a marketing program; Passenger survey and analysis; and a Five-Year Transportation Development Program. The shuttle bus system provides an important service to community residents. It is supported by farebox revenues and municipal funds. Although capital replacement needs are critical, it appears that the shuttle can meet vehicle replacement needs, maintain existing levels of service, and stabilize ridership and revenue with cost increases of about 5-8 percent annually. The study calls for an expanded effort to increase revenues through more aggressive marketing and increased federal/state fundings.			
17. Key Words Transportation Plan Shuttle Bus Fixed-Route Bus Needs Assessment Community Transit Regional Transit Five-Year Plan Marketing Plan Passenger Survey Demographics UMTA Section 9		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 67	22. Price (NTIS) A04

1. Report No. UMTA-OR-11-0003-89-1	2. Government Accession No. (NTIS) PB 89-218036	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Understanding the Dynamics of Innovation in Urban Transit.		5. Report Date June 1986	
		6. Performing Organization Code	
7. Author's Sy Adler		8. Performing Organization Report No.	
9. Performing Organization Name and Address Portland State University PO Box 751, Center for Urban Studies Portland, Oregon 97207		10. Grant or Project No. UMTA-OR-11-0003	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered University Research Phase 2 of 3 Phases Transit Manager Study	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes Related reports: Contribution of Manager and Organizational Characteristics to Transit Agency Performance: National Study of US Transit Providers, UMTA-OR-11-0004-89-1; and Transit Agency Characteristics: An Industry Profile, UMTA-OR-11-0002-86-2.			
16. Abstract <p>Urban transit is the major U.S. example of a once private industry that failed and was taken over by the public sector. Recent re-emergence of the private sector in urban transit as well as private sector-like behavior in the public sector raises a number of issues and poses important policy questions addressed in this report, namely: Why are these activities emerging when and where they are, and why are they taking the forms they are? What are the institutional structures that facilitate and hinder the re-emergence? What institutional changes are likely to take place? This report develops a conceptual model that explains the recent history of transit policy and outlines likely paths of transit service and institutional innovation. The model has 3 components: political and economic roles of transport facilities in the land development process; nature of the political process through which transit became a public sector activity; and politics of an industry whose prospects are the joint product of national, state, and local government activities. Each model element is explained and their individual and collective implications for understanding recent policy history and likely future service and institutional changes are discussed. The report discusses the basic feature of the metropolitan development process, namely--competition to maintain and attract capital investments. This report discusses the way transit became a public sector industry and the resultant fiscal crisis that generated movements to restructure, rationalize and privatize industrial and institutional arrangements. Case studies illustrating the dynamics of service and institutional innovations within the metropolitan contexts are presented and analyzed.</p>			
17. Key Words Innovation Urban Transit Competition Metropolitan Development Regionalization Policy History Political Economy Public Sector Transition Privatization Institutional Changes CBD Coalitions Suburban Case Studies		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 86	22. Price (NTIS) A05

1. Report No. UMTA-TX-08-8014-89-1	2. Government Accession No. PB 90-130378/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle 1988 Texas Transit Statistics.		5. Report Date August 1989	
		6. Performing Organization Code	
7. Author(s)		8. Performing Organization Report No.	
9. Performing Organization Name and Address Texas State Department of Highways & Public Transportation, Planning Division PO Box 5051 Austin, Texas 78763		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. UMTA-TX-08-8014	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		13. Type of Report and Period Covered Annual Report Planning study	
		14. Sponsoring Agency Code UMTA Region 6	
15. Supplementary Notes			
16. Abstract <p>This report, 1988 Texas Transit Statistics, is a comprehensive annual report on the 18 municipal transit systems operating in the State of Texas during 1988. It includes the 7 Metropolitan Transit Authorities operating in Texas in 1988-- Metropolitan Transit Authority of Harris County (Houston); VIA Metropolitan Transit (San Antonio); Dallas Area Rapid Transit; Fort Worth Transportation Authority; Capital Metropolitan Transportation Authority (Austin); Corpus Christi Regional Transit Authority; and El Paso City Transit Department. This report consists solely of charts and tables that provide ridership and operating statistics for each of the 18 municipal transit systems as well as for the State of Texas-at-large. More than 198 million (M) passengers were carried by these 18 systems in 1988 (7.8 percent increase from 184.2 M passengers carried in 1987). Transit vehicle miles increased about 10.7 percent to 108.8 M miles in 1988 as compared to 98.2 M miles in 1987. General operating costs increased 21.6 percent from \$201.1 M in 1987 to \$244.4 M in 1988. Total operating revenue per vehicle mi. increased by 1.1 percent. Total operating expenses per vehicle mile increased by 1.5 percent. The total public expense increased from \$282.1 M to \$460.6 M in 1988 (includes operating costs of \$244.4 M and capital costs of \$216.2 M in 1988). Public transportation funds committed in Texas increased from \$140.5 M in 1987 to \$368.6 M in 1988. This increase in spending reflects the initiation of major capital improvement projects in the State's largest cities. These committed funds include state, federal and local monies.</p>			
17. Key Words 1988 Texas Transit Statistics Statewide Municipal Transit Ridership Ridership Operations Funding Revenues Vehicle Miles Passenger Statistics Bus Regional Transit Annual Report Planning 18 Municipal Transit Systems		18. Distribution Statement Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 36	22. Price A03

09. Planning, Policy & Program Development

TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No. UMTA-TX-08-8014-89-5	2. Government Accession No. (NTIS) PB 90-225608	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle The Development of Standard Transit Profiles for Texas		5. Report Date November 1989	
7. Author(s) Diane L. Bullard		6. Performing Organization Code	
9. Performing Organization Name and Address Texas Transportation Institute The Texas A&M University System College Station, Texas 77843-3135		8. Performing Organization Report No. Technical Report 2005-1F	
12. Sponsoring Agency Name and Address Texas State Department of Highways and Public Transportation Transportation Planning Division P. O. Box 5051 Austin, Texas 78763		10. Work Unit No. TX-08-8014	
15. Supplementary Notes Companion report - 1988 Texas Transit Statistics, Aug. 1989. PB 90-130378, A03.		11. Contract or Grant No. Study 2-10-89-2005	
16. Abstract An extensive amount of financial and operational data on the public transit systems of Texas is presently being published by a variety of governmental agencies and industry associations. However, the manner in which much of this data is collected and published reduces its potential usefulness to transit operators and planning agencies. In response to this problem, standard transit system profiles are developed for the eighteen municipal systems of Texas. The transit system profiles were intended to include a range of financial, operational and performance variables in order to provide an overview of each system's characteristics. The development of these profiles will allow transit operators and planning agencies to: 1) monitor trends and evaluate changes in a transit system's performance over time; and 2) compare the financial and operational performance of one agency with that of similar operations in the state.		13. Type of Report and Period Covered Final: September 1988 - November 1989	
17. Key Words public transit, public transportation, transit profiles, transit performance, transit efficiency, transit effectiveness		14. Sponsoring Agency Code URO-6	
19. Security Classif. (of the report) Unclassified		20. Security Classif. (of this page) Unclassified	
18. Distribution Statement No restrictions. This document is available to the public through the: National Technical Information Service 5285 Port Royal Road Springfield, Virginia 22161		21. No. of Pages 296	
		22. Price A13	

1. Report No. DOT-OST-P-35-85-1	2. Government Accession No. (NTIS) PB 89-160105	3. Recipient's Catalog No. UMTRIS	
4. Title and Subtitle A Study of Transit Operating Revenue/Cost Ratios. 1		5. Report Date March 1985	
		6. Performing Organization Code	
7. Author's		8. Performing Organization Report No.	
9. Performing Organization Name and Address U.S. Department of Transportation Office of the Secretary of Transportation 400 7th Street, SW Washington, D.C. 20590		10. Work Unit No. (TRIS)	
		11. Contract or Grant No.	
12. Sponsoring Agency Name and Address Same as above (9)		13. Type of Report and Period Covered H.J. Res. 648	
		14. Sponsoring Agency Code P-35	
15. Supplementary Notes Project Monitor: Ed Weiner, P-35.			
16. Abstract The report, A Study of Transit Operating Revenue/Cost Ratios, is a response to the Conference Report on the Continuing Resolution (H.J. Res. 648) which directed the Department of Transportation to assess the policy implications and technical feasibility of requiring transit properties to meet a minimum operating revenue/operating cost ratio as a condition of receiving Federal operating assistance. This study explores the implications of implementing a federal transit operating assistance program based on transit operating revenue/cost ratios. The study begins with a comprehensive review of similar programs currently in place or under consideration in the states and in the province of Ontario, Canada. It evaluates the Section 15 Data Reporting System for use in implementing a federal program based upon revenue/cost ratios, and documents those areas having revenue/cost ratios meeting or exceeding 45 percent, 50 percent and 55 percent respectively. The final section of this report summarizes the major findings of this study and presents specific conclusions regarding the technical feasibility and policy implications of implementing a transit operating assistance program based on operating revenue/cost ratio targets.			
17. Key Words Section 15 Transit Operating Assistance/Federal Revenue/Cost Ratios Review State Operating Programs Ontario Transit Properties Urbanized Areas Policy Implications Feasibility		18. Distribution Statement Document available to the Public through the National Technical Information Service (NTIS), Springfield, VA 22161.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 123	22. Price A06

09. Planning, Policy & Program Development

Technical Report Documentation Page

1. Report No. UMTA-UGM-10-90-1	2. Government Accession No. (NTIS) PB90 219965/AS	3. Information System UMTRIS/UMTA Section 8, 9	
4. Title and Subtitle 1989 Statistical Summaries: Grant Assistance Program.		5. Report Date April 1990	6. DOT Report Number
		8. Performing Organization Report No.	
7. Author(s) Jo Tucci		10. Grant or Project No. UMTA-UGM-10	
9. Performing Organization Name and Address Urban Mass Transportation Administration Office of Capital and Formula Assistance U.S. Department of Transportation Washington, DC 20590		11. Contract No.	
		13. Type of Report and Period Covered Statistical UMTA Grants Assistance	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code UGM-10	
		15. Supplementary Notes	
16. Abstract <p>This report presents statistical summaries of UMTA's Grant Assistance Program. Grant assistance to the providers of local mass transportation began with the passage of the Urban Mass Transportation Act of 1964. A total of \$3.5 billion in grants was awarded during fiscal year 1989, raising the grand total of assistance to \$52.7 billion. Of the \$3.5 billion awarded, 74 percent was programmed for capital purposes; 24 percent for operating expenditures; and the remaining 2 percent for planning assistance. Excluding Stark-Harris grants, the largest urbanized areas with populations over 1 million received 79 percent of the total grant funds obligated during FY 1989. This Statistical Summaries report presents selected data on the distribution and use of various Formula and Discretionary program funds. These programs are the main source of Federal financial aid to urban and non-urban areas. Data was compiled from the capital, operating and planning assistance grants awarded in FY 1989 to transit authorities, states, metropolitan planning organizations, and other units of local governments. The statistical data charted-out in this report apply to the following UMTA programs: Programs Financed by the Mass Transit Account of Highway Trust Fund (Sections 3, 8, 16(b)(2), 9B); Programs Financed by General Funds (Sections 9, 18, Interstate Transfer); Programs Financed by the Highway Account of the Highway Trust Fund (FAUS); and Special Appropriation (Section 75, Stark-Harris).</p>			
17. Key Words UMTA Grants Assistance Program Formula Funds Discretionary Funds New Systems Ferry Boat Buses Vehicles Rural Transit Assistance Capital Grants Planning Operating		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 95	22. Price (NTIS) A05

1. Report No. UMTA-DC-06-0536-89-1	2. Government Accession No. (NTIS) PB89-208045	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Study to Establish and Increase Grantee/ Minority Financial Institution Financial Services Relationships.		5. Report Date May 10, 1989	
		6. Performing Organization Code	
7. Author's		8. Performing Organization Report No.	
9. Performing Organization Name and Address OWD Enterprises Inc. 8000 16th Street, NW Washington, DC 20012		10. Grant or Project No. UMTA-DC-06-0536	
		11. Contract No. DTUM 60-88-C-41003	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code UCR-10	
15. Supplementary Notes			
16. Abstract Since 1964, the federal government has encouraged development of viable disadvantaged business enterprises (DBEs). UMTA encourages grantees to develop DBE policies and programs and to establish and meet the overall DBE goals. The purpose of this project was to encourage and to improve the financial services relationships between UMTA grantees and minority financial institutions (MFIs). Through the MFI Depository Program, the project aimed to create a methodology by which local transit agencies and MFI financial services relationships could be established and enhanced. This study examined the MFI Depository Programs in 4 areas of the country: Chicago, Illinois; Houston, Texas; Washington, DC; and the Bay Area of Oakland-San Francisco, California. Financial, banking, policy and organizational data was collected from grantees and minority institutions in the study areas. Interviews were conducted with financial, administrative, and transit agency DBE personnel and with MFI chief executive and financial officers in order to obtain their input relative to development of a methodology for establishing and increasing grantee/MFI financial services relationships. This report presents a review of the history and progress of the MFI Depository Program of the Chicago Transit Authority, Metropolitan Transit Authority of Harris County, Washington Metropolitan Area Transit Authority, and the Regional Transit Association of the Oakland-San Francisco Bay Area. The report includes project findings, recommendations, and a call for implementing an UMTA/MFI Utilization Program.			
17. Key Words Federal Programs Minority Business Enterprises Regional Review Disadvantaged Business Enterprises Minority Financial Institutions Local Programs		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 96	22. Price (NTIS) A05

10. Political Processes & Legal Affairs

Technical Report Documentation Page

1. Report No. UMTA-DC-20-2012-89-1		2. Government Accession No. (NTIS) PB 89-195275/AS		3. Recipient's Catalog No. UMTRIS/UMTA SECTION 20	
4. Title and Subtitle Technical Assistance to Women Business Enterprises (WBEs) to Enter into Business Agreements with Transit Vehicle Manufacturers (TVMs) Project.				5. Report Date March 1989	
				6. Performing Organization Code	
7. Author(s)				8. Performing Organization Report No.	
9. Performing Organization Name and Address HOPE Associates, Inc. 801 South 19th Street Arlington, Virginia 22202				10. Grant or Project No. UMTA-DC-20-2012	
				11. Contract No. DTUM60-87-C-71346	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590				13. Type of Report and Period Covered Task 11 Final Report	
				14. Sponsoring Agency Code UCR-10	
15. Supplementary Notes					
16. Abstract <p>This report summarizes the principal activities of a 15-month project designed to develop and implement a technical assistance (TA) program that would help qualified women-owned businesses (WBEs) enter into profitable business arrangements with certified transit vehicle manufacturers (TVMs) under contract to UMTA. Three additional objectives were the following: to assist TVMs in achieving their WBE goals in terms of UMTA procurement requirements; identify post-project TA support strategies that would help WBEs eventually become long-term competitors in the mass transit marketplace; and to provide UMTA with a practical tool for assisting other WBEs and disadvantaged entrepreneurs. The project focused on providing assistance to 101 selected WBEs. This report summarizes the following project activities: Review of existing Federal TA programs for WBEs; Preparation and dissemination of an outreach and public information program; Selection of participating WBEs; Development and implementation of TA program; and Development of private sector support and strategies for the post project period. The report consists of 11 sections that briefly describe project accomplishments and include copies of key documents submitted to UMTA. It also includes the workshop agenda, list of WBEs, a Transit Vehicle Manufacturers Directory, TA program plan, and a Fact Sheet of contracting opportunities offered by TVMs to WBEs. This report is very informative and should prove useful to disadvantaged entrepreneurs interested in establishing a firm foothold in the transit marketplace.</p>					
17. Key Words Civil Rights Minorities Disadvantaged Business Enterprise (DBE) Women Business Enterprise (WBE) Technical Assistance Plan Barriers Transit Vehicle Manufacturers Guide Opportunities Private Sector UMTA			18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 89	22. Price (NTIS) A05

1. Report No. UMTA-DC-06-0477-86-1	2. Government Accession No. (NTIS) PB 89-221097	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle State Regulation and Oversight of Public Transit Safety. Volume 1.		5. Report Date January 1986	6. Performing Organization Code
7. Author(s) Bob Conly and Fred Jordan		8. Performing Organization Report No. DOT-TSC-UMTA-88-7	
9. Performing Organization Name and Address The Omega Group, Inc. 555 4th Street, NW Washington, D.C. 20001		10. Grant or Project No. UMTA-DC-06-0477	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Volume 1 of 2 Volumes Final Report	
15. Supplementary Notes		14. Sponsoring Agency Code UTS-40	
16. Abstract This study is concerned with surveying the activities of state governments in reducing the accident level in public transit. It focuses on transit safety and regulatory role of the states. The fundamental issue is--what oversight activities do states engage in to assure public transit is as safe as possible. This report presents a review of the programs conducted by each state government to oversee the safety of public transit systems within its jurisdiction. A summary of each state program is presented and designed to answer the following questions: Does the state have an explicit transit safety policy? Is a state agency designated responsibility for safety oversight? Does it require a safety plan from each transit system? Does it require each system to obtain a state operating permit which includes safety criteria? Does it set vehicle and equipment standards? Does the individual operating a transit vehicle have to obtain a special operator's license? Does the state set standards concerning working conditions of vehicle operators? Does it require that transit vehicles be inspected periodically? Do state personnel conduct required inspections? Does the state require or conduct inspections of rail or other fixed guideway facilities? Does it inspect operating and working conditions? and Does it investigate transit accidents. In addition, the study assessed the roles of each of the State Public Utilities Commissions regarding oversight of transit safety. The research methodology combined the review of state documents, the analysis of state statutes and regulations, and phone interviews with state officials. This study covers 50 states, the District of Columbia and Puerto Rico. The report provides conclusions and analyses of the states' transit safety programs.			
17. Key Words Public Transit Safety Policy State Transit Safety Programs Regulations Safety Oversight Policy Inspections Rail Vehicle Safety Equipment State Safety Plan Review		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 51	22. Price (NTIS) A03

1. Report No. UMTA-DC-06-0540-89-1	2. Government Accession No. (NTIS) PB89-207997	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Safety, Loss Control and Risk Management: An Assessment of Practices at 17 U.S. Bus Transit Agencies.		5. Report Date April 1989	6. Performing Organization Code
7. Author(s)		8. DOT Report No. DOT-T-89-18	
9. Performing Organization Name and Address Abacus Technology Corporation 5454 Wisconsin Avenue, Suite 1100 Chevy Chase, Maryland 20815		10. Grant or Project No. UMTA-DC-06-0540	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Final Report	
15. Supplementary Notes		14. Sponsoring Agency Code UTS-40	
16. Abstract <p>This study was undertaken to identify the extent of losses from risks that transit agencies are experiencing and their current efforts to reduce losses. The study is important because, for the first time, losses from risk and expenditures for controlling these risks have been quantified in a sample group for transit agencies. This study examined safety, loss control and risk management programs and practices at 17 bus transit agencies, located in 14 states with fleet sizes ranging from 200-1000 vehicles. The study objectives were to: assess risk and liability exposure of bus transit agencies; profile existing safety, loss control and risk management practices and programs; and recommend strategies to reduce losses. Data was collected through telephone and onsite interviews and organized accordingly: contractor managed transit agencies; regional transit agencies; and county/Municipal transit agencies. Transit agency losses due to accidents and claims were examined for the three year period 1985-87, as well as all program activities to reduce losses, including--operator and mechanic safety, employee hiring and training, drug and alcohol abuse, activities to reduce worker's compensation claims and risk management programs. External factors (state laws and labor contracts) affecting losses were also assessed. This report presents background information of the project, observations and recommendations for further loss reductions. It lists the 17 participating bus transit agencies, and presents a summary of noteworthy loss control activities at each agency.</p>			
17. Key Words Risk Management Safety Loss Control Assessment Survey Bus Agencies Liability Loss Reduction Accidents & Claims Anti-Drug Programs Employee Hiring/Training Bus Transit Case Study UMTA Section 6 Management		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 190	22. Price (NTIS) A09

1. Report No. UMTA-DC-06-0672-88-1	2. Government Accession No. (NTIS) PB 89-214746	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Computerized Safety Information and Data Analysis System		5. Report Date November 1988	6. Performing Organization Code WMATA
		8. Performing Organization Report No.	
7. Author(s) Roger Wood, Kenneth Best, Howard Whang, Charles Hallock (Project Manager)		10. Work Unit No. (TRAIS)	
9. Performing Organization Name and Address Washington Metropolitan Area Transit Authority Office of Safety and Fire Protection 600 Fifth Street, NW Washington, DC 20001		11. Contract or Grant No. DC-06-0472	
		13. Type of Report and Period Covered Final Report 09/83 through 11/88	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Technical Assistance and Safety 20590		14. Sponsoring Agency Code UTS-3	
		15. Supplementary Notes	
16. Abstract <p>During the early part of 1983, it became clear that improvements in the collection, analysis and reporting of safety data and information were badly needed. The time intensive task of manipulating and analyzing data and report preparation by hand was actually becoming a detriment to the timely and effective implementation of measures aimed at reducing the frequency of accidents/incidents at the Washington Metropolitan Area Transit Authority (WMATA). It became imperative that WMATA embark on a program for computerizing safety data. The Office of Safety and Fire Protection (SAFP) staff solicited the assistance of WMATA's Office of Management Information Services (MISV) to assist in defining the framework for developing the hardware and software requirements for an office computer system. It was agreed that large data files for rail and bus accidents/incidents which require large databases would be more effectively served by WMATA's large mainframe computers, while the analysis, smaller databases, and report generation could best be served with personal computers (PCs). At the time of the recognition of the need for a computer system, there were no internal funds available. As a result, SAFP solicited assistance from the US Department of Transportation and the Urban Mass Transportation Administration (UMTA). Consequently, UMTA granted WMATA a Research and Demonstration Grant of \$40,000 for the Computerized Transit Dedicated Safety Information and Analysis System (DSIAS). Subsequently, the DSIAS was developed into the Computerized Safety Information and Data Analysis System.</p>			
17. Key Words Personal Computer, Computer, Computerized Safety Data, Safety Analysis, Transit		18. Distribution Statement Document available to the Public through the National Technical Information Service (NTIS), Springfield, VA 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 151	22. Price (NTIS) A08

1. Report No. UMTA-IL-11-0031-89-1	2. Government Accession No. (NTIS) PB 89-215628/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 11	
4. Title and Subtitle Analysis of Bus Transit Accidents: Empirical, Methodological and Policy Issues.		5. Report Date June 1989	
		6. Performing Organization Code	
7. Author/s PP Jovanis, JE Schofer, P Prevendouros, and K Tsunokawa		8. Performing Organization Report No.	
9. Performing Organization Name and Address Northwestern University Transportation Center, 1936 Sheridan Road Evanston, Illinois 60208		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. UMTA-IL-11-0031	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		13. Type of Report and Period Covered University Research Final Report	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes Companion report title: Analysis of Bus Transit Accidents: Empirical, Methodological and Policy Issues, Executive Summary, UMTA-IL-11-0031-89-2.			
16. Abstract This report reflects the need to analyze bus transit accident data as a means of deriving more refined hypotheses concerning accident causality, and the view that research should include a discussion of empirical findings, methodological concerns and policy implications. Accident report data from PACE, the suburban bus agency within the Regional Transit Authority in the Chicago, Illinois, metropolitan area, for 1982-84 were analyzed to derive refined safety measures. The analysis of over 1800 accidents lead to the general conclusion that safety was well managed at the studied agencies. A full 89 percent of accidents involved collision with another vehicle or object, while 11 percent involved non-collision passenger injuries while boarding, alighting or moving about the bus. Severity of injury was low and occurred infrequently except for collisions in which autos rear-ended the bus. Accident occurrence appeared to increase near times of driver shift changes, although further studies are needed for verification. Drivers with 3-6 years experience were overrepresented in accidents. This report concludes with policy recommendations and future research and policy implications for UMTA and USDOT. This report provides a List of References and 3 Appendices. Appendix A contains an Annotated Bibliography (General and Bus Characteristics and Maintenance; Bus Drivers). Appendix B contains Information Available from Accident/Incident Reports. Appendix C includes the particular actions coded for bus' and other vehicle's action.			
17. Key Words Bus Safety Policy Accident Data Safety Bus Driver Passenger Accident PACE Chicago Metropolitan Area Policy Recommendations Bibliography		18. Distribution Statement Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 107	22. Price (NTIS) A06

11. Safety & Security

Technical Report Documentation Page

1. Report No. UMTA-IL-11-0031-89-2	2. Government Accession No.(NTIS) NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA Section 11	
4. Title and Subtitle Analysis of Bus Transit Accidents: Empirical, Methodological and Policy Issues.		5. Report Date June 1989	
		6. Performing Organization Code	
7. Author's PP Jovanis, JE Schofer, P Prevendouros, and K Tsunokawa		8. Performing Organization Report No.	
9. Performing Organization Name and Address Northwestern University Transportation Center, 1936 Sheridan Road Evanston, Illinois 60208		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. UMTA-IL-11-0031	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		13. Type of Report and Period Covered University Research Executive Summary	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes Final report title: Analysis of Bus Transit Accidents: Empirical, Methodological and Policy Issues, UMTA-IL-11-0031-89-1.			
16. Abstract This report reflects the need to analyze bus transit accident data as a means of deriving more refined hypotheses concerning accident causality, and the view that research should include a discussion of empirical findings, methodological concerns and policy implications. Accident report data from PACE, the suburban bus agency within the Regional Transit Authority in the Chicago, Illinois, metropolitan area, for 1982-84 were analyzed to derive refined safety measures. The analysis of over 1800 accidents lead to the general conclusion that safety was well managed at the studied agencies. A full 89 percent of accidents involved collision with another vehicle or object, while 11 percent involved non-collision passenger injuries while boarding, alighting or moving about the bus. Severity of injury was low and occurred infrequently except for collisions in which autos rear-ended the bus. Accident occurrence appeared to increase near times of driver shift changes, although further studies are needed for verification. Drivers with 3-6 years experience were overrepresented in accidents. This report concludes with policy recommendations and future research and policy implications for UMTA and USDOT. This report provides a List of References and 3 Appendices. Appendix A contains an Annotated Bibliography (General and Bus Characteristics and Maintenance; Bus Drivers). Appendix B contains Information Available from Accident/Incident Reports. Appendix C includes the particular actions coded for bus' and other vehicle's action.			
17. Key Words Bus Safety Policy Accident Data Safety Bus Driver Passenger Accident PACE Chicago Metropolitan Area Policy Recommendations Bibliography		18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, IL 60201; and University of California, Berkeley, CA 94720	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 10	22. Price (NTIS)

11. Safety & Security

Technical Report Documentation

1. Report No. UMTA-IT-06-0190-89-1		2. Government Accession No. (NTIS) PB 89-190664		3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Implementation Guidelines for Anti-Drug Programs in Mass Transit.				5. Report Date March 1989	
				6. Performing Organization Code	
7. Author(s) JW Klingelhoef, RD Kuest, DJ Mitchell, AI Turanski				8. Performing Organization Report No.	
9. Performing Organization Name and Address Battelle MBG Management Services, Inc. 505 King Avenue 3617 107th Street, SW Columbus, Ohio 43201 Olympia, Washington 98502				10. Grant or Project No. UMTA-IT-06-0190	
				11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590				13. Type of Report and Period Covered Implementation Guidelines	
				14. Sponsoring Agency Code UTS-40	
15. Supplementary Notes					
16. Abstract This report presents information gathered and analyzed in support of UMTA's effort to develop practical guidelines for U.S. transit operators in implementing anti-drug policies and programs. The principal goal of these guidelines is to assist the U.S. mass transit industry to achieve a drug-free transit workforce to protect the health and safety of workers and the public. This report explains the regulatory requirements for transit operators established by 49 CFR Parts 29, 40, and 653. Guidance is provided on cost effective strategies for implementing anti-drug program elements associated with policy formulation, employee and supervisor training, urine specimen collection and testing, recordkeeping and reporting, and establishing Employee Assistance Programs (EAPs). Detailed appendices include sample forms, correspondence, checklists, reference sources, and other tools to assist transit operators in creating workable procedures to meet regulatory requirements.					
17. Key Words Anti-Drug Program Safety Employee Assistance Program Drug Testing Policy Implementation Reporting & Certification 49 CFR - Implementation Guidelines				18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 190	22. Price (NTIS) A09

11. Safety & Security
 13D. Rapid Rail Vehicles & Systems

Technical Report Documentation Page

1. Report No. UMTA-IT-06-0190-89-2		2. Government Accession No. (NTIS) PB 90-159955/AS		3. Information System UMTRIS/UMTA SECTION 6	
4. Title and Subtitle The Use of Radios in Rail Transit Operations: Volume 1. Review of Existing Practices.				5. Report Date May 1989	
				6. DOT Report Number	
7. Author's Name RE Thompson				8. Performing Organization Report No.	
9. Performing Organization Name and Address Batelle Laboratories 505 King Avenue Columbus, Ohio 43201				10. Grant or Project No. UMTA-IT-06-0190	
				11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590				13. Type of Report and Period Covered Volume 1 of 2 Volumes Final Report	
				14. Sponsoring Agency Code UTS-3	
15. Supplementary Notes Volume 2: Transit Authorities Responses is available from NTIS. The NTIS order number is PB 90-159963/AS and the NTIS price code is A07.					
16. Abstract <p>This study reflects UMTA's continuing efforts to ensure the safety of the nation's rail transit systems, and to be responsive to the National Transportation Safety Board's concerns about the use of radio communications in rail transit operations. The study focused on radio communications conducted between train operators and central control operators. Specifically, the study addressed NTSB recommendations to UMTA requiring 1) operable radios for revenue service trains (R-86-39), and 2) development of a Uniform Code of Operating Rules and Procedures for use by the rail rapid transit industry (R-86-40). The objective of the study was to gain insight into current practices related to NTSB recommendations, determine potential needs, and identify possible actions which UMTA might initiate in response to any such needs. The Volume 1 report presents the results of a review of existing conditions and practices on the use of radios in rail transit operations. Information was obtained from a survey of 9 transit properties that operate heavy and/or light rail transit systems, as well as from a review of NTSB documents, FCC and FRA regulations, railroad radio rules/procedures and contacts with APTA, AAR and others. Volume 1 discusses the nature and findings of the basic study and provides conclusions and recommendations for UMTA considerations. To expand transit industry involvement in this study, the Volume 1 report was distributed to 19 rail transit authorities for their information and review. Volume 2 documents the responses received from the 19 rail transit authorities that were requested to provide information on their own radio system and to review and comment on the original report--Volume 1.</p>					
17. Key Words Review of Existing Practices Radios Rail Transit Operations Survey Transit Authorities Radio Usage Radio Rules/Procedures Safety National Transportation Safety Board R-86-39 R-86-40 UMTA Section 6				18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified		21. No. of Pages 149	22. Price (NTIS) A07

11. Safety & Security

Technical Report Documentation Page

1. Report No. UMTA-MA-06-0120-89-1	2. Government Accession No. (NTIS) PB 90-107152/AS	3. Information System UMRIS/UMTA SECTION 6	
4. Title and Subtitle Evaluation and Testing of Rail Transit Undercar Fire Detection and Suppression Systems.		5. Report Date August 1989	6. DOT Report Number
		8. Performing Organization Report No. DOT-TSC-UMTA-89-2	
7. Author(s) HN Ketola		10. Grant or Project No. UT901/U9502	
9. Performing Organization Name and Address KETRON, Inc.* 58 Charles Street Cambridge, Massachusetts 02141		11. Contract No. DTRS-57-83-C-00050	
		13. Type of Report and Period Covered Final Report Jan. 1986-Nov. 1988	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code UTS-3 and DTS-43	
		15. Supplementary Notes * Under contract to: US Department of Transportation Research & Special Programs Administration Transportation Systems Center, Cambridge, MA 02142.	
16. Abstract <p>Prevention of fires on rail transit vehicles is a significant safety issue in the transit industry. It is estimated that 70 percent of rail transit vehicle fires occur in the undercar area. This report presents the results of a comprehensive study of transit undercar fire detection and suppression methods applicable to the rail undercar environment. The study was conducted in 3 separate steps: identification and evaluation of fire detection and suppression methods feasible for rail transit operations; testing of several promising detection and suppression methods in the laboratory; and development of a proposed field test program for evaluation of the recommended rail undercar fire detection and suppression systems in an operational setting. A laboratory test program (26 tests) using an instrumented motor control group box from a NYCTA transit car was conducted at the Budd Company Technical Center under contract to KETRON. The program included tests on flow and thermal characteristics of the motor control group box; power arc-induced electrical cable fires; linear and spot thermal detector performance; Halon 1301 extinguishing system performance; and testing of a novel suppression concept involving the use of a portable nitrogen gas generator to provide an inerting atmosphere in the box for continuous protection. The evaluation of fire detection methods resulted in a recommendation that continuous wire type linear thermal detectors be applied to critical areas in the undercar. Halon 1301 extinguishing systems were identified as the best choice for control of fires occurring in enclosed equipment compartments. This study recommends that a field test program of selected methods be conducted.</p>			
17. Key Words Rail Transit Vehicle Safety Rapid Rail Undercar Fire Detection Fire Safety NYCTA Railcar Tests Fire Suppression Systems Rail Rapid Budd Test Center Halon 1301		18. Distribution Statement - Report Availability Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 156	22. Price (NTIS) A08

11. Safety & Security

Technical Report Documentation Page

1. Report No. UMTA-MA-06-0178-88-1	2. Government Accession No. NTIS NO PB 89-158992	3. Recipient's Catalog No.	
4. Title and Subtitle HEAVY RAIL TRANSIT SAFETY 1987 ANNUAL REPORT		5. Report Date September 1988	
		6. Performing Organization Code DTS-43	
7. Author(s) Mary Claire Drain		8. Performing Organization Report No. DOT-TSC-UMTA-88-9	
		10. Work Unit No. (TRAIS) UR901/U9201	
9. Performing Organization Name and Address U. S. Department of Transportation Research and Special Programs Administration Transportation Systems Center Cambridge, MA 02142		11. Contract or Grant No.	
		13. Type of Report and Period Covered Annual Report January 1, 1987 - December 31, 1987	
12. Sponsoring Agency Name and Address U. S. Department of Transportation Urban Mass Transportation Administration Office of Technical Assistance Washington, DC 20590		14. Sponsoring Agency Code URT-6	
		15. Supplementary Notes	
16. Abstract The <u>Heavy Rail Transit Safety 1987 Annual Report</u> is a compendium and analysis of heavy rail transit accident and casualty statistics reported by the thirteen heavy rail transit systems in the United States during 1987, under UMTA's Safety Information Reporting and Analysis System (SIRAS).			
17. Key Words Safety, Statistics, Transportation Fatalities, Injuries, Casualties, Accidents, Heavy Rail Transit, RRT, SIRAS		18. Distribution Statement DOCUMENT IS AVAILABLE TO THE PUBLIC THROUGH THE NATIONAL TECHNICAL INFORMATION SERVICE, SPRINGFIELD VIRGINIA 22161	
19. Security Classif. (of this report) UNCLASSIFIED	20. Security Classif. (of this page) UNCLASSIFIED	21. No. of Pages 36	22. Price A03

11. Safety & Security

Technical Report Documentation Page

1. Report No. UMTA-MA-06-0178-89-1	2. Government Accession No. PB 89-216386	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Development of a Graphics Based Automated Emergency Response System (AERS) for Rail Transit Systems		5. Report Date May 1989	
		6. Performing Organization Code DTS 43	
7. Author(s) William T. Hathaway, David I. Heimann, Patricia K. Hammar		Performing Organization Report No. DOT-TSC-UMTA-89-1	
		10. Work Unit No (TRAIS) UR901/U9201	
9. Performing Organization Name and Address U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center Cambridge, MA 02142		11. Contract or Grant No. MA-06-0178	
		13. Type of Report and Period Covered Final Report Jan. 1985 - Dec. 1988	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Technical Assistance and Safety Washington, D.C. 20590		14. Sponsoring Agency Code UTS-3	
		15. Supplemental Notes	
16. Abstract This report presents an overview of the second generation Automated Emergency Response System (AERS2). Developed to assist transit systems in responding effectively to emergency situations, AERS2 is a microcomputer-based information retrieval system that provides train controllers, dispatchers, and supervisors with quick and accurate information. In contrast to the original AERS, AERS2 provides information through a color schematic map of a one-mile length of track on the upper half of the computer display screen and textual information on the lower half of the screen. The report describes the development and operation of AERS2, provides its background and history, provides a detailed description of the AERS2 data files, describes the operation and the various functions of AERS2, and provides conclusions and recommendations for further action.			
17. Key Words Automated Emergency Response System; Rail Rapid Transit System Control Room; Rail Rapid Transit System; Safety; Microprocessor; Emergency Response Software; Emergency Action Requirements		18. Distribution Statement Document is available to the public through the National Technical Information Service, Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 48	22. Price

11. Safety & Security

Technical Report Documentation Page

1. Report No UMTA-MA-06-0186-89-1	2. Government Accession No. (NTIS) PB90-105537/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle Recommended Emergency Preparedness Guidelines for Elderly and Disabled Rail Transit Passengers		5. Report Date August 1989	
		6. Performing Organization Code DTS-43	
7. Author(s) William T. Hathaway, Stephanie H. Markos, and John N. Balog*		8. Performing Organization Report No. DOT-TSC-UMTA-89-4	
		10. Work Unit No. (TRAIS) UT901/U9502	
9. Performing Organization Name and Address U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center Cambridge, MA 02142		11. Contract or Grant No. UMTA-MA-06-0186	
		13. Type of Report and Period Covered Final Report November 1987 - March 1989	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Technical Assistance and Safety Washington, DC 20590		14. Sponsoring Agency Code UTS-3	
		15. Supplementary Notes *Ketrion Inc. 350 Technology Drive, Suite 20 Malvern, PA 19355	
16. Abstract Rail transit has become an important source of transportation for many elderly and disabled persons. The principal reasons for this increased use are improved accessibility, low cost, and expanded areas of service. For the purposes of this report, "elderly" is defined as any member of the population who is 60 years of age or older, and "disabled" is defined as any person who has some type of disability. The Urban Mass Transportation Administration (UMTA) has recognized the need to consider the unique characteristics of elderly and disabled passengers in rail transit emergency response planning. The needs of these passengers can be addressed through carefully planned emergency response procedures, proper training of transit and emergency response personnel, and effective use of equipment. The recommendations contained herein are therefore intended to assist rail transit and emergency response organization personnel in evaluating their emergency response plans in terms of the needs of elderly and disabled passengers and, if necessary, to modify or supplement those plans accordingly. Section 2 discusses types of emergencies, characteristics of elderly and disabled individuals, and the rail transit environment. Included in Sections 3 and 6 are minimum recommendations, procedures, and criteria which should be employed by all rail transit systems to enhance their particular emergency plans for addressing the needs of elderly and disabled passengers. Sections 4 and 5 present minimum recommendations which will assist in the evacuation of elderly and disabled passengers from rail transit vehicles and facilities. The guidelines in these two sections are intended to be used primarily for the planning of new systems, extensions to existing systems, and system rehabilitation. This report is intended to supplement the UMTA publication <u>Recommended Emergency Preparedness Guidelines for Rail Transit Systems</u> . That report contains general guidelines designed to assist rail transit systems in assessing, developing, documenting, and improving their capabilities for responding to emergencies and in coordinating those efforts with emergency response organizations.			
17. Key Words Rail, Rail Transit, Emergency Preparedness, Emergency Plan, Emergency Response, Emergency Equipment, Evacuation, Access and Egress, Elderly, Disabled, Handicapped		18. Distribution Statement Document is available to the public through the National Technical Information Service, Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 80	22. Price (NTIS) A05

11. Safety & Security

Technical Report Documentation Page

1. Report No. UMTA-MA-06-0186-89-2	2. Government Accession No. (NTIS) PB 90-130360/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Heavy Rail Transit Safety 1988 Annual Report.		5. Report Date September 1989	
		6. Performing Organization Code DTS-43	
7. Author(s)		8. Performing Organization Report No. DOT-TSC-UMTA-89-5	
		9. Performing Organization Name and Address U.S. Department of Transportation Research & Special Programs Administration Transportation Systems Center, Kendall Square Cambridge, Massachusetts 02142	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		10. Work Unit No. (TRAIS) UT901/U9503	
		11. Contract or Grant No. UMTA-MA-06-0186	
15. Supplementary Notes		13. Type of Report and Period Covered Annual Report Jan. 1, 1988-Dec. 1, 1988	
		14. Sponsoring Agency Code UTS-3	
16. Abstract <p>The Heavy Rail Transit Safety 1988 Annual Report is a compendium and analysis of rail transit accident and casualty statistics reported by the thirteen heavy rail transit systems in the United States during 1988 under UMTA's Safety Information Reporting and Analysis System (SIRAS). The thirteen heavy rail systems reporting their rail transit accident and casualty statistics are the following: BART, CTA, GCRTA, MARTA, MBTA, MDTA, MTAMD, NYCTA, PATCO, PATH, SEPTA, SIRTOA, AND WMATA. SIRAS is a voluntary safety reporting system developed by UMTA in cooperation with the American Public Transit Association (APTA) and the heavy rail transit (RRT) systems operating in the U.S. Since its implementation on January 1, 1983, the operating RRT systems have been reporting transit safety to UMTA on a monthly basis. New reporting thresholds were established and implemented on January 1, 1986. Up to 4 transit data reports are submitted: a Statistical Data Report, a Train Accident Report, a Casualty Report and a Fire Report. All transit systems submit a Statistical Data Report containing total number of car miles and number of passengers in the reporting month. The other 3 reports are submitted only during those months when reportable train accidents, fires, and casualties occur.</p>			
17. Key Words Heavy Rail Transit Safety Annual Report Statistics Accidents Fatalities Injuries Casualties Reporting & Analysis Systems (SIRAS) Rapid Rail Fire Train Accidents		18. Distribution Statement Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 29	22. Price A03

1. Report No. UMTA-PA-11-0034-89-1	2. Government Accession No. (NTIS) PB 89-216519/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle DRUG AND ALCOHOL IN TRANSIT		5. Report Date May, 1989	
		6. Performing Organization Code	
7. Author(s) Robert E. Millette & Patricia A. Joseph		8. Performing Organization Report No.	
9. Performing Organization Name and Address Lincoln University Lincoln University, PA 19352		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. PA 11-0034	
12. Sponsoring Agency Name and Address US DOT - Urban Mass Transportation Administration - University Research Training Program, Washington, DC 20590		13. Type of Report and Period Covered University Research Final Report	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes Related report: Implementation Guidelines for Anti-Drug Programs in Mass Transit, March 1989, UMTA-IT-06-0190-89-1.			
16. Abstract Public perception of the safety status of a mass transit system has an immense impact on ridership and fare revenues. Furthermore, a jury composed of citizens who regard a transit agency's safety record as poor is more likely to award sizeable settlements against the agency in liability litigation. The cost of litigation and financial settlements arising out of legal liability has been growing. This study is concerned with reducing the component of that expenditure attributable to accidents caused by substance abusers. This study examined and analyzed the Employee Assistance Programs at ten transit agencies throughout the United States. The results of the study indicate that successful employee assistance programs have the following characteristics: 1. A holistic approach to treatment 2. Union/Management participation 3. Education and training 4. An adequate benefit package 5. Follow-up procedures 6. Confidentiality at all levels, referral and assessment, stress management and an advisory group consisting of management, labor, the local community, recovering substance abusers and treatment specialists.			
17. Key Words Liability Issues Alcohol, Drug, Employee Assistance Program, Rehabilitation Safety Substance Abuse Case Studies UMTA Section 11		18. Distribution Statement Document is available to the U.S. public through the National Technical Information Service Springfield, VA 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 106	22. Price (NTIS) A06

12. Socioeconomics/Emerging Travel Trends

Technical Report Documentation Page

1. Report No. UMTA-CA-11-0032-89-1	2. Government Accession No. (NTIS) PB 89-196372/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Travel Trends in Non-CBD Activity Centers.		5. Report Date April 1989	
		6. Performing Organization Code	
7. Author(s) P. Gordon, H. Richardson, G. Giuliano		8. Performing Organization Report No.	
9. Performing Organization Name and Address University of Southern California School of Urban & Regional Planning Los Angeles, California 90089-0042		10. Grant or Project No. UMTA-CA-11-0032	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Case Studies University Research Final Report	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes			
16. Abstract 'Los Angelization', the movement of people, jobs, residences, and other activities away from the CBD, is being replicated nationwide. It is diminishing the importance of traditional downtown and resulting in commuting economies and shrinking markets for conventional transit. This is a case study of travel trends in the Los Angeles area--a prototype of the large, modern, American metropolis where the subcentering trends first appeared and are now being exhibited in other areas (14 in Washington DC area, 7 in Baltimore, 8 in Atlanta). This research centers around the not yet well understood interaction of the land and travel market generating such spatial arrangements. Nineteen activity centers were identified. Travel by mode and by purpose between centers and 45 regional statistical areas and within centers and areas were analyzed. This report examines the relationship between dispersed activity centers and the rest of the metropolitan area; the provision and performance of conventional and paratransit services for subcenters; and suggests appropriate transit service and policy innovations. Case studies of 2 medium-sized cities near Los Angeles (Pasadena and Glendale) were conducted in order to determine the types of transit services emerging in subcenters, and to provide guidance for future subcenter-based transportation planning. Results show that Los Angeles is a dispersed rather than a polycentric metropolis. The study findings point to a shift to small-scale suppliers throughout the region, and a limited role for conventional transit services in non-CBD activity centers. This report provides a bibliography and 5 appendices.			
17. Key Words Emerging Travel Trends Activity Centers Non-CBD Centers Subcenter Transit Dispersed Metropolis Regional Travel Trends Los Angeles Case Study Commuting Economies Plan Local Transit Socioeconomics		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages A05	22. Price (NTIS) A05

1. Report No. UMTA-MD-11-0008-90-1	2. Government Accession No. (NTIS) PB 90-171539/AS	3. Information System UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Low-Wage Labor and Access to Suburban Jobs.		5. Report Date January 1990	
		6. DOT Report Number	
7. Author(s) Z.A. Farkas, A. Odunmbaku, and M. Ayele		8. Performing Organization Report No.	
9. Performing Organization Name and Address Morgan State University Cold Spring Lane and Hillen Road Baltimore, Maryland 20590		10. Grant or Project No. UMTA-MD-11-0008	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered Final Report University Research Sept. 1988 - Jan. 1990	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes This report provides Tables that chart out labor force, employment characteristics, commuting patterns, demographics; Baltimore area maps; Sample survey questionnaire; and a Bibliography.			
16. Abstract Concerns about relocation of jobs to suburbs, high unemployment among low-wage inner-city labor, reverse commute transportation services, and the concentration of poverty in major American cities generated this study. This research focuses on the problem of matching unemployed inner-city labor with suburban job opportunities in the Baltimore metropolitan area (6-county study). The study objectives were to examine transportation factors constraining low-wage city labor from commuting to suburban jobs, to examine available reverse commute transportation to employment at suburban activity centers, and to provide recommendations for improving accessibility to these activity centers. The study methodology relied on the administration of surveys, statistical analysis of survey results, traffic simulation data and reviews of local studies and regional commuting and economic trends. Employment, commuting and suburban trends in the area are discussed and charted-out along with activity center accessibility analysis and employer survey results. The report discusses the survey of Baltimore City low-wage unemployed residents and quantifies the relationship between commuting and labor force characteristics. This 100 page report provides conclusions and policy recommendations regarding labor mobility, employment and reverse commute transportation services. The study findings state that transit travel times and costs in Baltimore City severely constrain commuting to suburban jobs by low-wage city labor, that suburban activity centers are inaccessible, and that the availability, quality and speed of reverse commute transportation have been worse than for suburb-to-city commuting.			
17. Key Words Suburban Activity Centers Baltimore Metropolitan Area Unemployment Low-Wage Inner-City Labor Accessibility Reverse Commute Job Accessibility Unskilled Labor Socioeconomics Employment Surveys Commuting		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 100	22. Price (NTIS) A06

1. Report No. UMTA-GA-08-7002-90-1	2. Government Accession No. NTIS PB 91-153114	3. Recipient's No. Section 8 /UMTRIS	
4. Title and Subtitle Atlanta Regional Commission Rail Car Cost Containment Study		5. Report Date	
7. Author (s) Metropolitan Atlanta Rapid Transit Authority/ Systems Engineering and LTK Engineering Services *		6. Performing Organization Code	
9. Performing Organization Name and Address Metropolitan Atlanta Rapid Transit Authority (MARTA) 2424 Piedmont Road, N. E. Atlanta, Georgia 30324-3324		8. Performing Organization Report No.	
12. Sponsoring Agency Name and Address U. S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W., Washington, D. C. 20590		10. Work Unit No. (TRANS)	
15. Supplementary Notes * LTK Engineering Services Philadelphia, Pennsylvania 19102		11. Contract or Grant No. GA-08-7002	
16. Abstract The Metropolitan Atlanta Rapid Transit Authority (MARTA) is one of four agencies participating in the Rail Car Cost Containment Program sponsored by the Urban Mass Transportation Administration. MARTA's objective in conducting the cost containment study was to: 1. Identify and consider elimination of any high cost, low worth functions from its rail specifications; 2. Develop feasible alternatives for essential functions and then obtain industry view about the cost impacts; 3. Quantify the cost savings; and 4. Produce a final project report. The study showed, based on information gathered during interviews with car builders, subsystem suppliers, and other Transit Authorities, some ways to contain the costs of rail cars and how to reduce the manufacturers' uncertainty and risk. Transit Authorities have to understand manufacturers' practices, problems, and points of view. Also, negotiated procurements tend to show that mutual understanding of the requirements and risks lead to cost reductions.		13. Type of Report and Period Covered November 1990	
17. Key Words Rail Cars Specifications Value Analysis Rail Transit Value Engineering Terms and Conditions		18. Distribution Statement Available to the public through the National Technical Information Service Springfield, Virginia 22161	
18. Security Classif. (of this report) Unclassified	20. Security Classif. (Of this page) Unclassified	21. No. Of Pages 55	22. Price A04

1. Report No. UMTA-TX-08-0262-89-1	2. Government Accession No. NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Capital Metro Five-Year Service Plan prepared for Capital Metropolitan Transportation Authority		5. Report Date December 1989	
		6. Performing Organization Code	
7. Author(s) Abrams-Cherwony & Associates		8. Performing Organization Report No.	
9. Performing Organization Name and Address Capital Metropolitan Transportation Authority 2910 East Fifth Street Austin, Texas 78702		10. Work Unit No.	
		11. Contractor Grant No. TX-08-0262	
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration U.S. Department of Transportation Washington, D.C. 20590		13. Type of Report and Period Covered	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes . See block no. 18 below for report availability information.			
16. Abstract This report presents the results of a comprehensive analysis of the bus services of the Capital Metropolitan Transportation Authority operating in the Austin, Texas area. The objective of the study is the preparation of a service plan that addresses the provision of new service and lays out a process for monitoring performance of the current system. It should be noted that the focus of the study is on the regular route services of Capital Metro which excludes the Specialized Transit Services (STS) and the downtown DILLO services. A separate plan for transit services in downtown Austin, which includes the DILLO service, is being addressed within another study.			
17. Key Words Bus Crosstowns Downtown Transit Improvement Dial-A-Ride		18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, Il 60201; and University of California-Berkeley.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 88	22. Price

1. Report No. UMTA-GA-06-0019-89-1	2. Government Accession No. (NTIS) PB89-208029	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Automatic Passenger Counter and Electronic Registering Farebox Data Integration Project.		5. Report Date March 1989	
		6. Performing Organization Code	
7. Author(s) Pierre Osei-Owusu and Ann Johnson		8. Performing Organization Report No.	
9. Performing Organization Name and Address Metropolitan Atlanta Rapid Transit Authority 2424 Piedmont Road Atlanta, Georgia 30324		10. Grant or Project No. UMTA-GA-06-0019	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Final Demonstration Report Jan 1986 - June 1986	
		14. Sponsoring Agency Code UTS-20	
15. Supplementary Notes			
16. Abstract <p>This project aimed to develop a unified passenger and revenue data reporting system by merging separate output files from 2 separate data handling devices--automatic passenger counter (APC) and electronic registering farebox (ERF). This report evaluates the Automatic Passenger Counter and Fare Demonstration Project undertaken by MARTA. It was designed to test the merging of output data from 2 onboard devices (APC and ERF). Three MARTA buses, equipped with both devices, were chosen to run on 3 selected routes. Output data representing fare and passenger activities on each of the 3 routes were manually merged into a single integrated output for further analysis and report generation. An important aspect of the initial plan, to merge the data electronically, was abandoned because of technical difficulties. Even though an electronic merger was not possible, many project objectives were achieved. This report provides background information of the project as a whole, discusses GFI electronic farebox and APC equipment, describes what was done, and discusses the results pointing out project strengths, weaknesses and conclusions. Data output integration was the central theme of the entire project.</p>			
17. Key Words Data Integration Survey Electronic Farebox Onboard Equipment Automatic Passenger Counter Tests Passenger & Revenue Data Reporting Data Output Merging Onboard Bus Survey UMTA SECTION 6 MARTA Bus Survey		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 90	22. Price (NTIS) A05

1. Report No. UMTA-NY-06-0118-88-1	2. Government Accession No. (NTIS) PB 89-202766	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle Electric Brake Retarders Demonstration for Small Paratransit Buses. Revised Final Report.		5. Report Date March 1988	6. Performing Organization Code
7. Author(s) J. Shanley		8. Performing Organization Report No.	
9. Performing Organization Name and Address Central New York Regional Transportation Authority One Centro Center, 200 Cortland Avenue, Drawer 820 Syracuse, New York 13205-0820		10. Grant or Project No. UMTA-NY-06-0118	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Revised May 1985-Oct. 1986 Final Report	
15. Supplementary Notes		14. Sponsoring Agency Code UTS-20	
16. Abstract CNYRTA operates a demand responsive paratransit system for the elderly and handicapped (E&H) in the Syracuse metropolitan area. Service is provided with a fleet of 15 small, gasoline powered wheelchair equipped buses. Each bus operates 8 hours and 107 miles daily (5 days a week) and used in door-to-door E&H service in addition to rural service throughout Onondaga County. Brake repair is a major cost problem. Brake overhauls occur every 3,000-4,000 mi. (vehicles average 30,000 mi. of revenue service annually). The solution proposed by CNYRTA for the small bus brake problem was to use electric brake retarders--an independent braking system not dependent upon friction to generate a retarding force. (The retarder works simultaneously with standard brakes but absorbs up to 75 percent of braking energy; thus, intervals between brake overhauls can be increased as much as 400-500 percent, and the life of the linings and drums/rotors are greatly extended.) The purpose of this demonstration project was to install and evaluate electric brake retarders on six 22-foot Thomas buses. Data was collected from 6 Thomas buses equipped with retarders and 2 Thomas buses not equipped with retarders. Data was compared and evaluated over an 18 month period. Miles between relinings increased with retarder equipped vehicles. This report contains a description of the electric brake retarder, evaluation and project conclusions. The maintenance staff recommended that future retarder purchases be written into bus specifications of future bus purchases as opposed to the retrofit of existing vehicles.			
17. Key Words Small Paratransit Bus Demand Responsive Brake Retarder Elderly & Handicapped Test Plan Electric Brake Retarder Demonstration Evaluation Costs Installation Thomas Bus Rural Vehicle Maintenance		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 66	22. Price (NTIS) A04

1. Report No. UMTA-WV-11-0004-88-1	2. Government Accession No. (NTIS) PB 89-145288/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle An Evaluation of the Spare Ratio Concept in the Management of Transit Rolling Stock.		5. Report Date November 1988	
		6. Performing Organization Code	
7. Author(s) W.H. Iskander and M. Jaraiedi		8. Performing Organization Report No.	
9. Performing Organization Name and Address West Virginia University Staggers National Transportation Center Morgantown, West Virginia 26506-6101		10. Grant or Project No. UMTA-WV-11-0004	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered University Research Final Report	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes			
16. Abstract This research investigates the problem of spare vehicles and maximum operating spare ratios in bus transit systems. The report should be of interest to transit agencies interested in managing transit assets. It reflects concerns that the determination of spare ratio and factors affecting its magnitude have not been extensively studied, and that transit systems with a spare ratio in excess of the specified maximum (120 percent) will not be eligible for federal capital resources to purchase, rehabilitate, or store transit vehicles. Statistical techniques were used to investigate the relationship between variations in the spare ratio and characteristics of bus transit systems. The question of 'substitutability' or the possibility of substituting a vehicle with a different one was examined. A methodology was developed and tested for conducting an assessment of an existing fleet and its service environment such that the possibility of 'substitutability' could be tested. Procedures were developed to determine optimal strategies for bus retirement, bus acquisition, and allocation of funds to purchase new equipment. A simulation model was developed to investigate the proper choice of spare ratio in order to maintain a desirable level of service dependability. The model studied the effect of time between bus breakdown and time to repair broken buses as well as other characteristics of the system on the value of spare ratio and the overall performance of the system. The model was successfully validated and used to simulate and study bus operations of the Kanawha Valley Regional Transportation Authority in Charleston, West Virginia.			
17. Key Words Rolling Stock Spare Ratio Spare Vehicles Bus Fleet Management Substitution Simulation Transit Assets Inventories Guidelines Fleet Assessment Evaluation		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 182	22. Price (NTIS) A09

1. Report No. UMTA-CA-06-0146-87-1	2. Government Accession No. (NTIS) PB 89-122626	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle LIFE-CYCLE COST DEMONSTRATION PROJECT FOR TRANSIT COACHES. FINAL REPORT		5. Report Date June 1, 1987	6. Performing Organization Code
7. Author(s) Winslow, RH, Furniss, R, Holcomb, G		8. Performing Organization Report No.	
9. Performing Organization Name and Address Santa Clara County Transit District 1555 Berger Drive San Jose, California 95112		10. Grant or Project No. UMTA-CA-06-0146	11. Contract No. UMTA-CA-06-0146-87-1
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Final Report	
14. Sponsoring Agency Code UTS-20			
15. Supplementary Notes			
16. Abstract Life-cycle costing (LCC) is a valuable tool for comparing the costs of owning and operating different equipment that serves similar purposes. This report documents the Santa Clara County Transit District (SCCTD) life-cycle cost demonstration project. The project was designed to test procedures for capturing data, for performing analysis essential to the LCC process, and for devising procurement document provisions that would support the use of LCC process as a rational basis for selection of transit coaches. The demonstration included a pretest forecast of LCC based on operating data from external sources, a test period of recording onsite operating experiences and costs, development of test operation procedures, and a post-test evaluation of the pre-test LCC forecast and of various LCC approaches and procedures. Demonstration fleets consisted of two models of articulated buses (M.A.N., and Crown-Ikarus). This project also developed a cost-driver type of LCC procurement package that clearly showed the value of recent onsite operating experience as a basis for evaluating LCC and for understanding LCC claims. The procedure was effective in evaluating bids for domestically manufactured coaches but not for foreign designed vehicles. The general finding of this project was that the state of development of transit operating databases was inadequate to support the widespread use of life-cycle costing. However, the LCC procedure does have merit as demonstrated by the wide differences in operating cost and productivity of the two articulated coach test fleets.			
17. Key Words UMTA SECTION 6 LIFE-CYCLE COSTING BUS ARTICULATED BUS MANAGEMENT DEMONSTRATION PROCUREMENT CROWN-IKARUS M.A.N. COST DRIVER		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 155	22. Price (NTIS) A08

1. Report No. UMTA-IT-06-0322-88-3	2. Government Accession No. (NTIS) PB 89-163323/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle Methanol Bus Program Data Analysis Report.		5. Report Date October 1988	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) T.C. Krenelka, A.J. Turanski, M.J. Murphy		10. Grant or Project No. UMTA-IT-06-0322	
9. Performing Organization Name and Address BATTELLE Columbus Division 505 King Avenue Columbus, Ohio 43201-2693		11. Contract No. DTUM60-85-C-71278	
		13. Type of Report and Period Covered Interim Report Sept. 1987 - June 1988	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-20	
		15. Supplementary Notes First report is titled--Proving Ground Comparison of M.A.N. Methanol and Diesel Transit Buses, October 1988, UMTA-IT-06-0322-88-4.	
16. Abstract The UMTA Methanol Bus Demonstration Program was established to develop information concerning safety, cost of ownership, maintainability, public health, and reliability issues resulting from the operation of methanol fueled transit buses. The methanol demonstration started in Seattle, Washington, in September 1987 and in New York City in May 1988. This is the second report of the program. It covers the period from the first introduction of methanol buses into revenue service in September 1987 through June 1988. The data presented in this report are analyzed for mileage, fuel consumption, oil consumption, maintenance actions, and safety/healthy/accident occurrences for methanol and diesel control buses operating on the same routes. Information from each program participant is reported separately in this report, and it is limited to the analysis of data from Seattle Metro, Triboro Coach Corporation of New York, Jacksonville Transit Authority, and Riverside Transit Agency. The report format includes Operations and Maintenance Data Analysis, Safety and Health Data Analysis and Incident Data Analysis. The appendices provide the following information: Detailed Specifications for diesel and methanol buses in the demonstration; Routes used by the fleets; Discussion of different energy contents of methanol and diesel fuels; and a Driver Survey Questionnaire. Overall, the methanol bus demonstration program is planned to involve a total of 59 methanol fueled buses operating under a variety of operational and environmental conditions. A current listing of program participants and planned participants is included in this report.			
17. Key Words UMTA Methanol Bus Program Demonstration Alternate Fuels Methanol Bus Diesel Bus Safety Public Health Operations Maintenance Seattle Metro Triboro Coach Fuels		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 75	22. Price (NTIS) A05

1. Report No. UMTA-NY-03-0182-89-1	2. Government Accession No. (NTIS) PB89-207971	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 3	
4. Title and Subtitle ORION II BUS DEMONSTRATION.		5. Report Date February 1989	
		6. Performing Organization Code	
7. Author(s) Juliann Shanley		8. Performing Organization Report No.	
9. Performing Organization Name and Address Central New York Regional Transportation Authority One Centro Center, 200 Cortland Avenue, Drawer 820 Syracuse, New York 13205-0820		10. Grant or Project No. UMTA-NY-03-0182	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Final Demonstration Report May 1985 - October 1986	
		14. Sponsoring Agency Code UTS-20	
15. Supplementary Notes			
16. Abstract The Central New York Regional Transportation Authority (CNYRTA) conducted an 18-month demonstration to determine how the ORION II bus operates in actual service. The ORION II vehicle is a small low floor, accessible heavy duty, diesel powered transit bus designed to meet the needs of the elderly and handicapped. It has the capacity to seat 26 passengers with 4 wheelchair lockdowns. Side and rear doors are equipped with electrically powered ramps. Data was collected from 2 ORION II vehicles operating in fixed-route service in Fulton, NY, and from 3 ORION II buses operating in demand-response service in Syracuse, NY. Test vehicles accumulated 52,000 miles in Fulton and 36,000 miles in Syracuse. Eight Thomas vehicles (22-foot, 11,500 lbs, wheelchair equipped, gasoline fueled) were also tested during this demonstration period. Operations (fuel and oil usage) and maintenance (scheduled and unscheduled) data were collected and charted-out in this report as well as driver, passenger, and maintenance surveys. Results show the ORION II bus more successful in fixed-route service than in demand-responsive. ORION II holds more wheelchairs and more ambulatory passengers. It can hold larger motorized chairs as a result of having a ramp rather than lift. Driver and passenger surveys show preference for ORION II vehicles. This report provides descriptions, photographs, and comparison charts of both the diesel-fueled ORION II transit bus and the gasoline-fueled Thomas vehicles along with the demonstration test plan, evaluations, conclusions and survey results.			
17. Key Words ORION II SMALL BUS DEMONSTRATION THOMAS SMALL BUS ELDERLY & HANDICAPPED TEST PLAN SMALL LOW-FLOOR BUS WHEELCHAIR PASSENGER DRIVER MAINTENANCE SURVEY SYRACUSE DIESEL BUS OPERATIONS		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 123	22. Price (NTIS) A06

1. Report No. UMTA-IT-06-0322-88-2	2. Government Accession No. (NTIS) PB 89-158448	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle Training Manual for Methanol Fuel Use in Transit Operations.		5. Report Date July 1988	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) M. Murphy, and R.C. Pine		10. Grant or Project No. UMTA-IT-06-0322	
9. Performing Organization Name and Address BATTELLE, Columbus Division* 505 King Avenue Columbus, Ohio 43201		11. Contract No.	
		13. Type of Report and Period Covered Training Manual	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-20	
15. Supplementary Notes * ATE Management & Service Company, Inc. and Pine and Associates			
16. Abstract This is a manual on the handling and use of methanol fuel in transit. It was prepared in support of the UMTA Methanol Bus Program. The manual is designed for use by transit personnel involved in the operation, servicing, and maintenance of methanol-fueled buses. The purpose of this manual is to answer questions about methanol, describe some of the methanol properties, and explain the important safety factors related to transit use. A companion audio-visual slide-tape program was developed that reviews and reinforces the material in the manual. The slide-tape presentation was customized for each transit agency's facilities. The training materials have been used in conjunction with methanol bus demonstrations at Seattle Metro in Seattle, Washington; Riverside Transit Agency in Riverside, California; and at Triboro Coach Corporation in New York, New York. Additional use is planned at Southern California Rapid Transit District in Los Angeles, California and at the Regional Transportation District in Denver, Colorado. The manual contents are directed toward M-100 or neat methanol because this is the methanol fuel composition that has gained greatest acceptance as fuel for heavy-duty engines. The material in the manual is basic, charted-out clearly and easily understood. The manual is important to agencies using or preparing to use methanol fuel in transit.			
17. Key Words Training Manual Methanol Transit Fuel Background Characteristics Fire Properties Safety Equipment Procedures Job Training Buses UMTA Section 6 Fuelers Maintenance Drivers		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 50	22. Price (NTIS) A03

1. Report No. UMTA-NY-08-0150-90-2	2. Government Accession No. (NTIS) PB91-119222	3. Information System UMTRIS/UMTA Section 8	
4. Title and Subtitle A Choice of Direction Volume 1 & 2 Vol. 1 - A Strategic Plan for Westchester County Dept. of Transp. - Executive Summary Vol. II - A Strategic Plan etc., 1990-1992		5. Report Date January 1990	6. DOT Report Number
7. Author(s) Westchester County Department of Transportation		8. Performing Organization Report No.	
9. Performing Organization Name and Address New York Metropolitan Transportation Council One World Trade Center, Suite 82 East, New York, N.Y. 10004		10. Grant or Project No. UMTA-NY-08-0150	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered Final Report Effective Date Jan. 1990 1990-1992	
15. Supplementary Notes		14. Sponsoring Agency Code URO-2	
16. Abstract <p>A strategic plan is a framework for future resource allocations and deployments, and it provides a method to assess an agency's capability to meet future demands. Strategic planning can be viewed as a management tool for anticipating changes, maintaining program effectiveness, and positioning an agency to respond to changing conditions.</p> <p>The purpose of a strategic plan is to define the agency's goals and objectives and to develop strategies through which they can be achieved. An effective strategic plan will assist the agency and its policy-makers in responding to new trends and opportunities. The plan can also be useful to policy-makers in allocating appropriate funds to meet the agency's mission.</p> <p>As a management tool, a strategic plan can increase both the effectiveness and efficiency of an agency's effort to meet the public's needs within the context of competing programs and resources. The creation of a plan enables an agency to reach internal consensus in terms of purpose and sense of accomplish this, a plan requires an assessment of the agency's environment, the adoption of a clear mission statement, a concise and realistic definition of goals and objectives, and an outline of specific strategies and actions.</p>			
17. Key Words Bus Rail Vehicle Maintenance MOV Lanes/Vehicles		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages	22. Price (NTIS) All

1. Report No. UMTA-PA-06-0111-90-1	2. Government Accession No. (NTIS) PB91-121087	3. Information System UMTRIS/UMTA Section 6	
4. Title and Subtitle Commercialization of MAGLEV Technology.		5. Report Date August 1990	
		6. DOT Report Number	
7. Author(s) Richard A. Uher		8. Performing Organization Report No.	
9. Performing Organization Name and Address Carnegie Mellon University Carnegie Mellon Research Institute, Rail Center 4400 5th Avenue, Pittsburgh, PA 15213		10. Grant or Project No. UMTA-PA-06-0111	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered Final Report 12/87 - 12/88	
		14. Sponsoring Agency Code UTS-3	
15. Supplementary Notes			
16. Abstract This report was generated under an UMTA grant through the Commonwealth of Pennsylvania to the High Speed Ground Transportation Center of Carnegie Mellon University (CMU). The purpose and task put forth to CMU was to develop and commercialize the 1986 Boeing MAGLEV. During 1978-1985, UMTA invested nearly \$8 million in the development of MAGLEV technology with the Boeing Company. CMU received the results of the Boeing technology through the UMTA grant, evaluated its use in high speed ground transportation, and concluded that this technology was not easily adaptable to high speed regional MAGLEV systems. After the transfer and evaluation of the BOEING technology, the focus of the CMU study changed from Boeing MAGLEV technology development to Americanizing and manufacturing foreign technology (German and Japanese), i.e., development of a MAGLEV industrial base in U.S. This report discusses recruitment of the public/private sector into a partnership and formation of the MAGLEV Working Group, which later became MAGLEV Inc. Drawings of conceptual MAGLEV regional systems are presented in this report, along with the Pittsburgh Regional MAGLEV Project and its 3 objectives: a Pittsburgh regional MAGLEV industry; a private/public partnership to build and operate a regional system; and integration of the stops on the regional MAGLEV into nodes of economic activity. This report has 3 main sections: a paper titled Role of High Speed MAGLEV in the Future U.S. Transportation System, by R.A. Uher; a paper titled Report on the Preliminary Feasibility Study of Pittsburgh MAGLEV Project, by MAGLEV Working Group; and a MAGLEV Bibliography by the Transportation Research Board TRIS Staff.			
17. Key Words MAGLEV Boeing MAGLEV UMTA Section 6 Planning/Application Future Technology Transrapid High Speed Ground Transportation Regional/Suburban System MAGLEV Inc. Privatization Pittsburgh MAGLEV		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 63	22. Price (NTIS) A05

1. Report No. UMTA-TX-08-0262-90-1	2. Government Accession No. NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Downtown Transit Improvement Plan		5. Report Date July 30, 1990	
		6. Performing Organization Code	
7. Author(s) DeShazo, Starek & Tang, Inc.		8. Performing Organization Report No.	
9. Performing Organization Name and Address Courtyard at 208 West Fourth Street Austin, Texas 78701		10. Work Unit No.	
		11. Contractor Grant No. CMTA 2646-88 / TX-08-0262	
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration U.S. Department of Transportation Washington, D.C. 20590		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes . See block no. 18 below for report availability information.			
16. Abstract This report addresses the mobility improvements attempt to strike a balance between projected demand for service and preserving many of the area's existing characteristics. In terms of funding these improvements, Capital Metro (2910 East Fifth Street; Austin, Texas 78702) should pursue coordination with the corridor development community and public agencies such as the City of Austin, to facilitate the implementation of transportation improvements as needed. Due to local economic conditions, it may be appropriate for Capital Metro to consider financial participation in a comprehensive mobility improvements package for the redevelopment corridor.			
17. Key Words Transit Ridership Radial Route Dillo		18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, IL 60201; and University of California-Berkeley.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 123	22. Price

1. Report No. UMTA-UTS-30-89-2	2. Government Accession No. (NTIS) PB 90-151374/AS	3. Information System UMTRIS	
4. Title and Subtitle A People Mover for Atlantic City: Issues, Impacts, Markets, Costs, and Criteria.		5. Report Date October 1989	6. DOT Report Number
		8. Performing Organization Report No.	
7. Author(s) - RK Brail, RW Burchell, CC Walker, A Schwartz, et al.		10. Grant or Project No.	
9. Performing Organization Name and Address Rutgers University* Center for Urban Policy Research Building 4051, Kilmer Campus New Brunswick, New Jersey 08903		11. Contract No.	
		13. Type of Report and Period Covered Planning Study Assessment	
12. Sponsoring Agency Name and Address New Jersey Department of Transportation 1035 Parkway Avenue Trenton, New Jersey 08625		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes *This report is being disseminated by UMTA through NTIS in cooperation with the Center for Urban Policy Research, Rutgers University.	
16. Abstract <p>This report analyzes the critical issues relating to the development of an automated guideway transit (AGT) system or peplemover in Atlantic City, New Jersey. It estimates the demand for and costs of a peplemover system, explores potential revenue sources for funding a system, examines the public issues germane to the question of whether and how such a system can be implemented, and ultimately will assist decision-makers to determine whether or not the peplemover concept deserves further attention. The study was commissioned by the New Jersey Department of Transportation and undertaken by a team of Rutgers University faculty members. The study team collected data and opinions on issues, surveyed markets, developed cost/revenue models, and looked into the legal and environmental implications of this potential new local transportation improvement. The study draws on several sources: review of Atlantic City planning documents and transportation studies; AGT literature; and interviews with 60 'stakeholders' representing the casinos, city businesses, community and civic organizations, and city, county and state government agencies. Interviews were also conducted with AGT system suppliers and transportation officials from other cities. Basically, the report begins with a discussion of the history and issues surrounding AGT development, and then moves into the more technical concerns of markets and costs/revenues, and concludes with a discussion of a formal evaluation methodology for selecting a franchisee to build a peplemover system in Atlantic City. The appendix in this report provides a bibliography on peplemovers.</p>			
17. Key Words Automated Guideway Transit Peplemover Development Assessment Implementation Critical Issues Impacts Markets System Design Cost Franchisee Selection Funding Planning		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 372	22. Price (NTIS) A16

1. Report No. UMTA-DC-06-0362-90-1	2. Government Accession No. (NTIS) PB 90-259557	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle Research and Development and Design of a Steerable Transit Truck		5. Report Date March 1990	6. Performing Organization Code K9-10200
		8. Performing Organization Report No. TR 443 700 001	
7. Author(s) J.W. Horwat, UTDC Inc.		10. Grant or Project No. UMTA-DC-06-0362	
9. Performing Organization Name and Address Washington Metro Area Transit Authority 600 Fifth Street, N.W. Washington, D.C. 20001		11. Contract No. DC-06-0362	
		13. Type of Report and Period Covered Final Project Report	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-21	
15. Supplementary Notes WMATA - Program Manager - Edgar C. Green, Jr. UTDC Inc., Post Office Box 70, Station "A", Kingston, Ontario, Canada K7M 6P9			
16. Abstract <p>This program was initiated as the result of the findings of the WMATA wheel wear/track wear study. Because of the close wheel/track tolerance and flange profile, WMATA noted a wear rate in both wheel and track which was several times higher than anticipated. Because earlier studies of a steerable truck concept had never been completed, WMATA requested UMTA assistance to complete the evaluation.</p> <p>The program objective was to design, analyze and recommend a steerable truck retrofit to the Washington Metro Rockwell trucks. The design features two-point, body-to-axle steering and replacement of the axle bearing rubber sleeve and end cap with an axle bearing box, top mount and laminated rubber/steel sandwiches. Steering input is by lever and push/pull rods. The brake housing-to-sideframe mountings are modified to ensure maximum pad/disc contact area. The incorporated design was computer analyzed mathematically for performance with respect to dynamic stability and curving ability. The results of the analyses define a stable vehicle within the dynamic envelope of the WMATA system and flange-free curving ability on curves of radii above 500 feet. Because of the large design change at the sideframe/axle interface, a finite element stress analysis was performed resulting in the requirement for a preliminary design sideframe reinforcing cap to be welded to the sideframe.</p>			
17. Key Words Rapid Transit Noise Reduction Truck Dynamics Steerable Truck		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified	
		21. No. of Pages 213	22. Price (NTIS) A10

13D. Rapid Rail Vehicles & Systems

Technical Report Documentation Page

1. Report No. UMTA-DC-06-0443-89-1	2. Government Accession No. (NTIS) PB 90-216870	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle Prototype Carborne Monitor Development Project Final Report		5. Report Date September 1989	
		6. Performing Organization Code MMATA - RAIL	
7. Author(s) T.E. Moser ENSCO, INC. James B. Winn MMATA		8. Performing Organization Report No.	
9. Performing Organization Name and Address Washington Metropolitan Area Transit Authority 600 5th Street, N.W. Washington, D.C. 2001		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. DC - 06- 0443	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code UTS -3	
15. Supplementary Notes			
16. Abstract <p>The Prototype Carborne Monitor Development Project Final Report includes the Final technical Report, Operations Manual and Performance Specification developed as part of the project. The Carborne Monitor was installed on a Rohr rail car to record 10 analog and 60 digital signals which would be useful in determining the cause of an incident such as a derailment or collision. The unit is designed to be fully automatic with self testing start-up features and to automatically "freeze" data in the event of a derailment, a collision, the application of emergency brakes or the keying of the incident switch by the train operator. Thirty minutes of data, 20 prior to an incident and 10 following an incident, are recorded for each of two incidents. In addition to the carborne equipment, software for an off-line data retrieval and analysis system, using a personal computer, was developed and tested. The Performance Specification reflects all the improvements identified during the operational demonstration and can be used as a technical specification for procurement purposes.</p>			
17. Key Words Carborne Monitor, Event Recorder, Incident Reporting, Safety, Rapid Transit, Electronic Data Recording		18. Distribution Statement Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 196	22. Price (NTIS) A09

1. Report No. UMTA-GA-08-7002-90-1	2. Government Accession No. NTIS PB 91-153114	3. Recipient's No. Section 8 /UMTRIS	
4. Title and Subtitle Atlanta Regional Commission Rail Car Cost Containment Study		5. Report Date	
7. Author (s) Metropolitan Atlanta Rapid Transit Authority/ Systems Engineering and LTK Engineering Services *		6. Performing Organization Code	
9. Performing Organization Name and Address Metropolitan Atlanta Rapid Transit Authority (MARTA) 2424 Piedmont Road, N. E. Atlanta, Georgia 30324-3324		6. Performing Organization Report No.	
12. Sponsoring Agency Name and Address U. S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W., Washington, D. C. 20590		10. Work Unit No. (TRAUS)	
15. Supplementary Notes * LTK Engineering Services Philadelphia, Pennsylvania 19102		11. Contract or Grant No. GA-08-7002	
16. Abstract The Metropolitan Atlanta Rapid Transit Authority (MARTA) is one of four agencies participating in the Rail Car Cost Containment Program sponsored by the Urban Mass Transportation Administration. MARTA's objective in conducting the cost containment study was to: 1. Identify and consider elimination of any high cost, low worth functions from its rail specifications; 2. Develop feasible alternatives for essential functions and then obtain industry view about the cost impacts; 3. Quantify the cost savings; and 4. Produce a final project report. The study showed, based on information gathered during interviews with car builders, subsystem suppliers, and other Transit Authorities, some ways to contain the costs of rail cars and how to reduce the manufacturers' uncertainty and risk. Transit Authorities have to understand manufacturers' practices, problems, and points of view. Also, negotiated procurements tend to show that mutual understanding of the requirements and risks lead to cost reductions.		13. Type of Report and Period Covered November 1990	
17. Key Words Rail Cars Specifications Value Analysis Rail Transit Value Engineering Terms and Conditions		18. Distribution Statement Available to the public through the National Technical Information Service Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (Of this page) Unclassified	21. No. Of Pages 55	22. Price A04

1. Report No. UMTA-IL-06-0048-88-1	2. Government Accession No.(NTIS) PB 89-121263/AS	3. Recipient's Catalog No.	
4. Title and Subtitle Chicago Transit Authority Evaluation of Rail Borne Snow Removal Vehicle (S-500).		5. Report Date May 1988	
		6. Performing Organization Code	
7. Author(s) Wilfred R. Torres		8. Performing Organization Report No.	
9. Performing Organization Name and Address Chicago Transit Authority Merchandise Mart Plaza P.O. Box 3555 Chicago, Illinois 60654		10. Work Unit No. (TRIS)	
		11. Contract or Grant No. IL-06-0048	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered FINAL REPORT 1980-1987	
		14. Sponsoring Agency Code URT -11	
15. Supplementary Notes			
16. Abstract This final report on the S-500 Rail Borne Snow Removal Vehicle, purchased by Chicago Transit Authority (CTA) from Mitsubishi International Corp., and built by Niigata Engineering Co. Ltd. of Japan, provides basic information on the equipment's design, modifications, and operational problems. The development and acquisition of this high powered Snow Removal Vehicle occurred following the devastating winter of 1978-79, when a record breaking 88 inches of snowfall paralyzed the CTA rail transit system. The report discusses the S-500 vehicle's technical specifications, the results of vehicle testing, and modifications made to improve performance. The vehicle was designed for a maximum snow removal rate of 1,500 tons per hour, and a travelling speed of up to 20 mph while removing snow. Based on test experience, the conclusion is that the propulsion system design, utilizing a single diesel engine and complex transmission system to power both the vehicle and the snow removal equipment, hampers performance and reliability. The experience gained from the prototype S-500 vehicle resulted in its successor being designed with separate engines for propulsion and for snow removal. Also discussed, is the modification of six rubber-tired vehicles with rotating snow brooms. Interchangeable steel flanged wheels were designed, allowing these vehicles to operate on railroad track.			
17. Key Words Rail Transit Snow Remover Vehicle Snow Brooms Auger and Snow Blower		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 30	22. Price A03

1. Report No. UMTA-CA-06-0175-89-1	2. Government Accession No. PB 89-191142	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle INVERTER-CONTROLLED AC INDUCTION MOTOR PROPULSION SYSTEM Volume I: Executive Summary		5. Report Date March 1989	
		6. Performing Organization Code	
7. Author(s) Jim Clemence		8. Performing Organization Report No. 88-61138-1, Rev. 1	
9. Performing Organization Name and Address Allied Signal Aerospace Company AiResearch Los Angeles Division 2525 W. 190th St. Torrance, CA 90509		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. DTUM60-82-C-7.1144	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Technical Assistance and Safety Washington, DC 20590		13. Type of Report and Period Covered Final Report March 1982 - Dec 1988	
		14. Sponsoring Agency Code UTS - 21	
15. Supplementary Notes			
16. Abstract <p>An inverter-controlled ac induction motor propulsion system for rail transit cars was designed, developed, and tested to verify projected benefits and applicability of ac over conventional dc cars. Two New York City Transit Authority (NYCTA) R-44 dc subway cars were retrofitted with prototype ac propulsion equipment based on mature, low-risk ac propulsion technology. The program showed that propulsion systems using ac motors can provide greatly improved reliability and reduced maintenance, with significant reductions in life-cycle cost. The prototype ac propulsion system conserves energy through regenerative braking, returning energy to the line when the network is receptive. The equipment consists of a control unit incorporating solid-state integrated circuits and two essentially independent truck drives. For each truck, a single inverter unit powers two totally enclosed, self-cooled, squirrel-cage ac induction motors, each motor driving one of the two axles per truck. Each pulse-width-modulated, voltage-fed, thyristor-controlled inverter is forced-air cooled by a blower, which also cools the resistors used to dissipate dynamic braking energy when the line is not receptive. Demonstrated on the NYCTA, the ac propulsion system improved acceleration and braking performance with good electromagnetic interference and acoustic noise control and was fully compatible with the existing trainlines, NYCTA signalling and supervisory equipment, and dc cars. The report explains how the latest technology would be applied in future production equipment to result in even more benefits to the rail transit industry.</p> <p>Volume I contains the executive summary; Volume II contains final report Sections 1 through 5.</p>			
17. Key Words Ac propulsion system Ac traction motor Dc chopper Inverter drive unit Power conversion unit		18. Distribution Statement Document is available to the U.S. public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 64	22. Price (NTIS) A04

1. Report No. UMTA-CA-06-0175-89-2		2. Government Accession No. PB 89-191159		3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle INVERTER-CONTROLLED AC INDUCTION MOTOR PROPULSION SYSTEM Volume II: Final Report				5. Report Date March 1989	
				6. Performing Organization Code	
7. Author(s) Jim Clemence				8. Performing Organization Report No. 88-61138-2, Rev. 1	
9. Performing Organization Name and Address Allied Signal Aerospace Company AiResearch Los Angeles Division 2525 W. 190th St. Torrance, CA 90509				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No. DTUM60-82-C-7.1144	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Technical Assistance and Safety Washington, DC 20590				13. Type of Report and Period Covered Final Report March 1982 - Dec 1988	
				14. Sponsoring Agency Code UTS - 21	
15. Supplementary Notes					
16. Abstract <p>An inverter-controlled ac induction motor propulsion system for rail transit cars was designed, developed, and tested to verify projected benefits and applicability of ac over conventional dc cars. Two New York City Transit Authority (NYCTA) R-44 dc subway cars were retrofitted with prototype ac propulsion equipment based on mature, low-risk ac propulsion technology. The program showed that propulsion systems using ac motors can provide greatly improved reliability and reduced maintenance, with significant reductions in life-cycle cost. The prototype ac propulsion system conserves energy through regenerative braking, returning energy to the line when the network is receptive. The equipment consists of a control unit incorporating solid-state integrated circuits and two essentially independent truck drives. For each truck, a single inverter unit powers two totally enclosed, self-cooled, squirrel-cage ac induction motors, each motor driving one of the two axles per truck. Each pulse-width-modulated, voltage-fed, thyristor-controlled inverter is forced-air cooled by a blower, which also cools the resistors used to dissipate dynamic braking energy when the line is not receptive. Demonstrated on the NYCTA, the ac propulsion system improved acceleration and braking performance with good electromagnetic interference and acoustic noise control and was fully compatible with the existing trainlines, NYCTA signalling and supervisory equipment, and dc cars. The report explains how the latest technology would be applied in future production equipment to result in even more benefits to the rail transit industry.</p> <p>Volume I contains the executive summary; Volume II contains final report Sections 1 through 5.</p>					
17. Key Words Ac propulsion system Ac traction motor Dc chopper Inverter drive unit Power conversion unit			18. Distribution Statement Document is available to the U.S. public through the National Technical Information Service, Springfield, Virginia 22161.		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 300	22. Price (NTIS) A13

1. Report No. UMTA-MA-06-0167-89-1	2. Government Accession No. (NTIS) PB 91-153122	3. Recipient's Catalog No. Section 6 /UMTRIS	
4. Title and Subtitle THE CAUSES OF WHEEL FLANGE WEAR AND DERAILMENTS ON MBTA ORANGE AND BLUE LINES		5. Report Date December 1989	
		6. Performing Organization Code	
7. Author(s) George A. Leighton *, John A. Elkins **, Jeffrey N. Sisson ***		8. Performing Organization Report No.	
9. Performing Organization Name and Address Massachusetts Bay Transportation Authority Heavy Rail Equipment Department 80 Broadway Everett, Massachusetts 02149		10. Work Unit No. (TRAI5)	
		11. Contract or Grant No. MA-06-0167	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		13. Type of Report and Period Covered Final Project Report	
		14. Sponsoring Agency Code UTS-21	
15. Supplementary Notes * Teledyne Engineering Services ** Association of American Railroads, *** Massachusetts Bay Transportation Authority			
16. Abstract <p>This report documents a study of the causes of wheel flange wear and derailment on the Massachusetts Bay Transportation Authority (MBTA) Orange and Blue Rapid Transit Lines. The study included both full-scale testing using instrumented wheels on the track in question and a computer model of wheel/rail curve performance. Both experimental and predicted data are presented. Parameters affecting wheel wear considered in this study include: longitudinal suspension stiffness, wheel profile, and track curvature. Two wheel profiles, 1:20 and 1:40 were used in the test track curvature of the four test curves, which varied from 1.3° to 9.3°. The computer model included lower primary suspension stiffness and worn wheel profile.</p> <p>The primary objectives of the study were: (1) to determine the feasible reduction in the longitudinal stiffness of the existing primary suspension chevron, and (2) to establish by theoretically supported experiment, the reduction in wheel/rail forces and wear rates that could be obtained by modifying the primary suspension and wheel profile.</p> <p>The study recommends that MBTA should consider changing its standard wheel profile from 1:40 to a worn wheel profile, such as AAR1. Additional benefits in curving performance could be obtained from a significant reduction in the longitudinal stiffness of the primary suspension chevron.</p>			
17. Key Words Rapid Transit Transit Track Suspension Systems Instrumented Rail Wear Wheelsets Derailment Wheel Profile Wheel Wear		18. Distribution Statement Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 169	22. Price A08

13D. Rapid Rail Vehicles & Systems

Technical Report Documentation Page

1. Report No. UMTA-MA-08-9021-89-1	2. Government Accession No. (NTIS) PB 90-148693	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Urban Rail Transit Projects: Forecast Versus Actual Ridership and Costs.		5. Report Date October 1989 Performing Organization Code	
7. Author(s) Pickrell, D.H., Dr.		8. Performing Organization Report No.	
9. Performing Organization Name and Address Transportation Systems Center U.S. Department of Transportation Kendall Square Cambridge, Massachusetts 02142		10. Work Unit No. (TRAIS)	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		11. Contract or Grant No. UMTA-MA-08-9021	
15. Supplementary Notes		13. Type of Report and Period Covered Final Report Planning Study	
16. Abstract Substantial errors in forecasting ridership and costs for the ten rail transit projects reviewed in this report, put forth the possibility that more accurate forecasts would have led decision-makers to select projects other than those reviewed in this report. This study examines the accuracy of forecasts prepared for ten major capital improvement projects in nine urban areas during 1971-1987. Each project includes construction of a fixed transit guideway: Rapid Rail or Metrorail (Washington DC, Atlanta, Baltimore, Miami); Light Rail Transit (Buffalo, Pittsburgh, Portland, Sacramento); and Downtown Peoplemover (Miami and Detroit). The study examines why actual costs and ridership differed so markedly from their forecast values. It focuses on the accuracy of projections made available to local decision-makers at the time when the choice among alternative projects was actually made. The study compares forecast and actual values for four types of measures: Ridership, Capital costs and financing, Operating and maintenance costs, and Cost-effectiveness. Forecasting data used in making comparisons were obtained from published planning documents; actual data were drawn from a combination of published sources, internal documents, and direct contacts with employees. This review of past forecasting errors identifies the causes of the divergence between forecast and actual performance of these projects; makes recommendations to improve the reliability of forecasts for future projects; and contributes toward fostering better urban transportation investment decisions. This report is organized into 6 chapters, numerous tables, and an appendix that documents the sources of all data appearing in the tables presented in this report.		14. Sponsoring Agency Code UGM-20	
17. Key Words Urban Rail Transit Projects Review Forecasting Ridership Costs Capital Outlays Actual Comparisons Financing Operations Maintenance Cost Effectiveness Planning Procedures Metrorail PeopleMover Light Rail		18. Distribution Statement Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 164	22. Price(NTIS) A08

1. Report No. UMTA-NJ-06-0028-90-1	2. Government Accession No. (NTIS) PB 91-153106	3. Information System UMTRIS/UMTA Section 6	
4. Title and Subtitle COORDINATED PROGRAM TO IMPROVE MASS TRANSPORTATION ACCESSIBILITY BETWEEN QUEENS AND MANHATTAN		5. Report Date October 1990	
7. Author(s) Stephen B. Dobrow *		6. DOT Report Number UMTA-NJ-06-0028-90-1	
Performing Organization Name and Address Fairleigh Dickinson University 1000 River Road Teaneck, NJ 07666		8. Performing Organization Report No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		10. Grant or Project No. NJ-06-0028	
15. Supplementary Notes * with George Haikalis and I. David Widawsky		11. Contract No.	
16. Abstract Completion of the Metropolitan Transportation Authority's plan to relieve overcrowding on Queens-to-Manhattan subways, to extend subway service to Eastern Queens and to provide Long Island Rail Road service directly to Manhattan's East Side stalled in the 1970s when New York City experienced a major fiscal downturn. Only the upper level of the two-level Manhattan-Queens 63rd Street Tunnel was completed in 1989. The line serves but a single subway station in Queens, does not connect to other lines in Queens, and is drastically underutilized while other subway lines are severely overcrowded. The lower LIRR level is not connected at either end and plans to use it are in abeyance. The MTA has proposed to tie the upper level of the tunnel into the Queens Boulevard line to use half the capacity of this level, with a future storage yard and reversible track operation on the Queens Boulevard Line to use the other half. This study has developed, evaluated and refined a series of coordinated actions to alleviate overcrowding and related problems on rail lines (subway and LIRR) between Queens and Manhattan, and the management of service on such lines. The key finding of this study is that an alternative development program could produce substantially greater benefits to the region, with very little increase in net cost to the MTA. This is possible by completing both the upper and lower levels of the tunnel and by focusing new services so they enhance potential development sites, generating developer contributions, in Queens and Manhattan. The major element is intermodal integration, in both Transportation System Management actions (integrated fares, service frequencies, and feeder services), and in the longer-term development of a unified transportation center at Queens Plaza. Other elements include new "subway" lines, a "hybrid" subway-railroad service, and airport access transit.		13. Type of Report and Period Covered Final Report 1990	
17. Key Words New York City Alternatives Analysis Rail Transit Economic Development Rapid Transit Multimodal Private-Public Value Capture Queens Manhattan		14. Sponsoring Agency Code UTS-21	
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified	
18. Distribution Statement - Report Availability Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650		21. No. of Pages 89	
22. Price (NTIS) A06			

1. Report No. UMTA-NJ-08-7002-90-1	2. Government Accession No. (NTIS) PB91-119230	3. Recipient's Catalog No. UMTRIS/Section 8
4. Title and Subtitle RAIL ROLLING STOCK COST CONTAINMENT STUDY	5. Report Date September 1990	6. Performing Organization Code
	8. Performing Organization Report No.	
7. Author(s) Lea+Elliot, Inc./FAI, Inc./Raul V. Bravo + Assoc.	9. Performing Organization Name and Address New Jersey Transit Corporation McCarter Highway and Market Street P.O. Box 10009 Newark, New Jersey 07171	10. Work Unit No. (TRAINS)
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590	11. Contract or Grant No. NJ-08-7002	13. Type of Report and Period Covered Final 1989-1990
	14. Sponsoring Agency Code UTS-21	
15. Supplementary Notes		
16. Abstract During the past decade, the New Jersey Transit Corporation (NJ TRANSIT) has spent approximately \$375 million for the purchase, upgrade, and rehabilitation of rail rolling stock. The Urban Mass Transportation Administration (UMTA) has determined that the average cost of a railcar continues to grow and is sponsoring work to determine how the costs may be contained. NJ TRANSIT selected the contract area of General Provisions and their attendant Terms and Conditions (T&C) clauses to be studied as part of the UMTA work. The purpose of this project was to critically review the T&C clauses to determine whether certain of them may be removed or changed to bring about a cost savings without sacrificing the substance of the necessary protection. This study defines the T&C clauses that could affect the cost of rail rolling stock purchases, establishes cost estimates for those clauses based on the T&C language in a specific NJ TRANSIT contract, identifies the cost drivers associated with each clause, provides a qualitative cost comparison of T&C clauses in a specific NJ TRANSIT contract against like clauses in other NJ TRANSIT contracts and in other transit authority contracts and suggests cost-saving approaches. Certain clauses (e.g., Buy America, Utilization of Disadvantaged Business Enterprises, and Cargo Preference - Use of U.S. Flag Vessels) were not included in the study because of the improbability of effecting a change therein.		
17. Key Words General Provisions Terms and Conditions Rail Rolling Stock Cost Containment Contract Clauses	18. Distribution Statement Document available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 246
		22. Price A08

1. Report No. UMTA-NY-06-0087-89-1	2. Government Accession No. (NTIS) PB89-202717	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle NOISE REDUCTION EFFECTIVENESS OF RESILIENT RAIL FASTENERS ON STEEL SOLID WEB STRINGER ELEVATED STRUCTURES, VOLUME I		5. Report Date MARCH 1989	6. Performing Organization Code
7. Author(s) JAMES T. NELSON* GEORGE PAUL WILSON*		8. Performing Organization Report No.	
9. Performing Organization Name and Address NEW YORK CITY TRANSIT AUTHORITY 370 JAY STREET BROOKLYN, NY 11201		10. Grant or Project No. NY-06-0087	11. Contract No. NYCTA #CM564
12. Sponsoring Agency Name and Address URBAN MASS TRANSPORTATION ADMINISTRATION 400 SEVENTH STREET, S.W. WASHINGTON, D.C. 20590		13. Type of Report and Period Covered FINAL REPORT	
15. Supplementary Notes *WILSON, IHRIG & ASSOCIATES, INC. OAKLAND, CALIFORNIA		14. Sponsoring Agency Code UTS-21	
16. Abstract Under the sponsorship of the Urban Mass Transportation Administration's Technical Assistance program, the New York City Transit Authority (NYCTA) studied the noise reduction effectiveness of various resilient rail fasteners for steel elevated structures. The study included field and laboratory tests, and limited theoretical modeling to identify and optimize those characteristics which are most effective in reducing noise, while meeting criteria for rail stability. The fasteners studied were: (1) NYCTA Container Plate, (2) Landis A, (3) Landis B, (4) L. B. Foster, (5) Elastic Spike Corporation, (6) Lord A, and (7) Lord B. Only the L. B. Foster, Elastic Spike Corporation, and Lord Fasteners are considered appropriate by the NYCTA for installation. Relatively little A-weighted noise reductions were achieved by any of the fasteners relative to the NYCTA Container Plate, though the Lord fasteners reduced wayside noise by about 2 dBA relative to the NYCTA Container Plate and provided significant reductions in the mid-frequency range of 80 to 500 Hz. Additional findings of the study were that the solid web stringers are the primary source of wayside noise up to 600 Hz. Top plate bending resonance in the 500-700 Hz frequency range may be a significant factor in reducing the vibration isolation effectiveness of resilient rail fasteners. The standing wave elastomer resonance (thickness mode) of resilient fasteners does not appear to be significant to wayside noise reduction at 500 Hz or lower frequencies for the type of fasteners considered.			
17. Key Words Noise Reduction Rail Transit Track Vibration Track Fasteners Elevated Structures		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161	
19. Security Classification (of this report) Unclassified	20. Security Classification (of this page) Unclassified	21. No. of Pages 105	22. Price (NTIS) A06

1. Report No. UMTA-NY-06-0087-89-2		2. Government Accession No. (NTIS) PB89-202725		3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle NOISE REDUCTION EFFECTIVENESS OF RESILIENT RAIL FASTENERS ON STEEL SOLID WEB STRINGER ELEVATED STRUCTURES, VOLUME II				5. Report Date MARCH 1989	
				6. Performing Organization Code	
7. Author(s) JAMES T. NELSON* GEORGE PAUL WILSON*				8. Performing Organization Report No.	
9. Performing Organization Name and Address NEW YORK CITY TRANSIT AUTHORITY 370 JAY STREET BROOKLYN, NY 11201				10. Grant or Project No. NY-06-0087	
				11. Contract No. NYCTA #CM564	
12. Sponsoring Agency Name and Address URBAN MASS TRANSPORTATION ADMINISTRATION 400 SEVENTH STREET, S.W. WASHINGTON, D.C. 20590				13. Type of Report and Period Covered FINAL REPORT	
				14. Sponsoring Agency Code UTS-21	
15. Supplementary Notes *WILSON, IHRIG & ASSOCIATES, INC. OAKLAND, CALIFORNIA					
16. Abstract Under the sponsorship of the Urban Mass Transportation Administration's Technical Assistance program, the New York City Transit Authority (NYCTA) studied the noise reduction effectiveness of various resilient rail fasteners for steel elevated structures. The study included field and laboratory tests, and limited theoretical modeling to identify and optimize those characteristics which are most effective in reducing noise, while meeting criteria for rail stability. The fasteners studied were: (1) NYCTA Container Plate, (2) Landis A, (3) Landis B, (4) L. B. Foster, (5) Elastic Spike Corporation, (6) Lord A, and (7) Lord B. Only the L. B. Foster, Elastic Spike Corporation, and Lord Fasteners are considered appropriate by the NYCTA for installation. Relatively little A-weighted noise reductions were achieved by any of the fasteners relative to the NYCTA Container Plate, though the Lord fasteners reduced wayside noise by about 2 dBA relative to the NYCTA Container Plate and provided significant reductions in the mid-frequency range of 80 to 500 Hz. Additional findings of the study were that the solid web stringers are the primary source of wayside noise up to 600 Hz. Top plate bending resonance in the 500-700 Hz frequency range may be a significant factor in reducing the vibration isolation effectiveness of resilient rail fasteners. The standing wave elastomer resonance (thickness mode) of resilient fasteners does not appear to be significant to wayside noise reduction at 500 Hz or lower frequencies for the type of fasteners considered.					
17. Key Words Noise Reduction Rail Transit Track Vibration Track Fasteners Elevated Structures			18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161		
19. Security Classification (of this report) Unclassified		20. Security Classification (of this page) Unclassified		21. No. of Pages 411	22. Price (NTIS) A18

1. Report No. UMTA-MA-06-0175-88-1	2. Government Accession No. (NTIS) PB 89-165575/AS	3. Report & Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle RAIL CAR COST CONTAINMENT STUDY		5. Report Date August 1988	
		6. Performing Organization Code	
7. Author(s) C. S. Peeke, R. N. Lawson, J. A. Polutchko, L. T. Agnew		8. Performing Organization Report No.	
9. Performing Organization Name and Address Dynatrend Inc. 21 Cabot Road Woburn, Massachusetts 01801		10. Work Unit No. (TRIS) Project No. UMTA-MA-06-0175	
		11. Contractor Grant No. DTUM60-84-C-71263	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Final Report 1988	
		14. Sponsoring Agency Code UTS-21	
15. Supplementary Notes			
16. Abstract <p>This report describes a study of rail car procurements over the past 15 years to analyze cost growth and to determine whether deletion, reduction or modification of some procurement conditions (design, specifications, warranties, etc.) could be effective in the containment of future rail car costs. It was found that rail car cost has increased at an average annual rate of 9.4% per year and that, if unchecked, the average rail car will cost \$2.4 million in 1995. Even with inflation removed, the average annual rate of growth has been over 5% per year.</p> <p>The analysis points to many areas that should be considered for potential cost savings when rail cars are to be purchased. There are many potential savings methods available. The greatest cost savings identified in this study are from the use of negotiated procurements, existing designs, smaller car sizes, and large procurement order sizes. Significant initial cost savings have also been demonstrated from equitable escalation and monetary value clauses, but these add the risk of additional cost later in the contract.</p>			
17. Key Words Rail Transit Rail Car Procurement Rail Car Rail Car Performance Specifications Standardization Terms and Conditions		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 109	22. Price Code (NTIS) A06

1. Report No. UMTA-DC-06-0374-88-1	2. Government Accession No. (NTIS) PB 89-168215	3. Report & Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle WATER INTRUSION IN UNDERGROUND STRUCTURES		5. Report Date October 1988	6. Performing Organization Code Job No. 5634
		8. Performing Organization Report No. T17908	
7. Author(s) Mueser Rutledge Consulting Engineers *		9. Performing Organization Name and Address Washington Metropolitan Area Transit Authority 600 Fifth Street, NW Washington, DC 20001	10. Grant or Project No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		11. Contract No. DC-06-0374	
		13. Type of Report and Period Covered FINAL 1983-1988	
15. Supplementary Notes * Mueser Rutledge Consulting Engineers 708 Third Avenue New York, NY 10017		14. Sponsoring Agency Code UTS-21	
16. Abstract <p>This report summarizes an investigation of problems related to water intrusion in underground structures of the Washington Metropolitan Area Transit Authority. Design and construction of the system has been evolving continuously since 1966 and has included a number of innovative features as well as certain special problems related to control of leaking water. The assignment was to investigate four topics of water intrusion: (1) the build-up of hydrostatic pressures and measures for pressure relief; (2) waterproofing procedures in the Metro system and their effectiveness; (3) the special problem of calcification due to precipitation of carbonates in the drainage system of rock tunnels; and (4) special difficulties with the intrusion of acid water in Coastal Plain deposits. The assignment included contacting other rapid transit agencies to evaluate their methods of treating water intrusion. A field test of waterproofing compounds was performed at Dupont Circle and Rosslyn Stations to evaluate the possible effect of sealing of drains in those stations by calcareous precipitates. Studies of the effect of buildup of water pressures indicated little possibility of significant stress increase in the rock station structural lining. An on-going investigation of the effect of acid water intrusion disclosed the abatement of these problems by a natural process of groundwater flushing.</p>			
17. Key Words Groundwater Control Rail Transit Transit Tunnels Waterproofing Hydrostatic Pressures		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 163	22. Price (NTIS) A08

1. Report No. UMTA-PA-08-9003-88-1	2. Government Accession No.(NTIS) PB 89-190268/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Philadelphia Abandoned Trolley Restoration Feasibility Study. Report to Congress.		5. Report Date December 1988	
		6. Performing Organization Code	
7. Author(s)		8. Performing Organization Report No.	
9. Performing Organization Name and Address U.S. Department of Transportation* Urban Mass Transportation Administration 400 7th Street, SW Washington, DC 20590		10. Work Unit No. (TRIS)	
		11. Contract or Grant No. UMTA-PA-08-9003	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Report to Congress	
		14. Sponsoring Agency Code UGM-20	
15. Supplementary Notes *Prepared in cooperation with the Southeastern Pennsylvania Transportation Authority and the City of Philadelphia.			
16. Abstract This study is a response to a congressional request contained in Section 334 of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17). The study was undertaken to evaluate the desirability of restoring streetcar service to four segments (Routes 60, 6, 50-northern section, and 50-historic section) of the abandoned lines of Southeastern Pennsylvania Transportation Authority (SEPTA) streetcar system in the City of Philadelphia. The objective of the study was to determine whether the quantifiable benefits of restored streetcar service on segments with track and/or power, still in place, would warrant the necessary financial investment to restore and upgrade the remaining facilities. This study was undertaken as a cooperative enterprise of UMTA, SEPTA and the City of Philadelphia. The City of Philadelphia has expressed disagreement with some of the conclusions contained in this report.			
17. Key Words Report to Congress UMTA Section 8 Philadelphia Trolley Restoration System Planning Feasibility Study Capital Costs Economic Evaluation Operating Cost Ridership and Income Streetcar		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 23	22. Price A03

Technical Report Documentation Page

1. Report No. UMTA-LA-06-0007-88-1	2. Government Accession No. (NTIS) PB 89-191035/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Coordinating Special Transportation Services in Louisiana.		5. Report Date December 1988	
		6. Performing Organization Code	
7. Author(s)		8. Performing Organization Report No. State project no. 700-20-25	
9. Performing Organization Name and Address Urban Systems, Inc.* 4822 Prytania Street New Orleans, Louisiana 70115		10. Grant or Project No. UMTA-LA-06-0007	
		11. Contract No.	
		13. Type of Report and Period Covered Demonstration	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes *With assistance from Regional Planning Commission.	
16. Abstract This Special Transportation Enhancement Demonstration (STED) Program was initiated in 1987 to inventory UMTA Section 16(b)(2) special transportation services in Louisiana and to develop and implement a coordinated transportation program for the elderly, handicapped, and disadvantaged patrons in rural Tangipahoa and urban Orleans Parishes. The intent was to identify coordination alternatives that reduce capital and operating costs and enhance special services. A planning model was developed to coordinate services statewide, reduce waste, and transfer nationwide to other urban and rural areas. Part 1 presents a comprehensive inventory and operational analysis of 16(b)(2) services for each parish, and an evaluation and selection of alternative coordination packages for a demonstration project. Part 2 consists of an actual demonstration of alternatives to determine options to reduce capital and operating costs, and recommendations for improving services in parishes. The concept developed and discussed to achieve maximum coordination at minimum state cost is the centralized private operator in a defined area. This report includes implementation guidelines, and recommendations for enhancing services as well as a manual (Appendix J) with 9 different ways to help 16(b)(2) operators reduce operating costs and improve services. In addition, ten appendices and numerous tables chart-out trip and ridership profiles, questionnaires, reporting procedures, online database for a central provider system, annotated bibliography etc. The companion report is titled: Special Transportation Enhancement Program: Project Evaluation Report, UMTA-LA-06-0007-88-2			
17. Key Words Coordination Services Planning Elderly & Handicapped Louisiana Demonstration UMTA 16(b)(2) Services Cost-Savings Manual Alternatives Inventory Special Transportation Service Central Provider System Paratransit		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 340	22. Price (NTIS) A15

1. Report No. UMTA-LA-06-0007-88-2	2. Government Accession No. (NTIS) PB 89-191282	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Special Transportation Enhancement Program: Project Evaluation Report.		5. Report Date October 1988	6. Performing Organization Code
		8. Performing Organization Report No. RPC Project No: 700-20-28-001	
7. Author(s) G. Amedee, M. Baptiste, R. Haley, D. Jasmine, and D.T. Veal		10 Grant or Project No. UMTA-LA-06-0007	
9. Performing Organization Name and Address Southern University at New Orleans 6400 Press Drive New Orleans, Louisiana 70126		11 Contract No.	
		13 Type of Report and Period Covered Project Evaluation	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15 Supplementary Notes Companion report: Coordinating Special Transportation Services in Louisiana, December 1988, UMTA-LA-06-0007-88-1.	
16. Abstract This report documents a post evaluation review of a Special Transportation Enhancement Demonstration (STED) Project conducted by Urban Systems for the Regional Planning Commission and Louisiana Dept. of Transportation and Development. The STED project goals were to inventory 16(b)(2) special transportation services and to develop and implement a coordinated transportation program for the elderly, handicapped and disadvantaged patrons in rural Tangipahoa and urban Orleans Parishes. The intent was to reduce capital and operating costs and improve services. The project developed a planning model to coordinate special transportation services statewide, reduce waste, and it identified national implications for other urban and rural systems. This study reviews the following key findings of the STED Program: All Coordinating Alternatives; Nationwide Roles and Responsibilities of State DOTs, MPOs, Local and State Social Service Agencies, and RTAs; Concept of Centralization of Special Transportation Resources under a Single Private For Profit Operation; Database and Data Collection Regarding Use of UMTA 16(b)(2) Vehicles; 12 Alternatives for Coordinating UMTA 16(b)(2) Programs; and a Comparative Analysis of Operational Economies of Urban Orleans and Rural Tangipahoa Parishes. This evaluation concludes that the STED recommendations are likely to be transferrable nationwide. But it leaves a number of issues for future study.			
17. Key Words Coordinating Services UMTA Section 6 Elderly & Handicapped Louisiana UMTA 16(b)(2) Program Evaluation Special Transportation Enhancement Privatization Planning Centralization of Special Services		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 34	22. Price (NTIS) 34 A03

1. Report No. UMTA-MS-11-0003-89-1	2. Government Accession No.(NTIS) PB 89-160089	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle An Analysis of Four Selected State Transportation Coordination Efforts in Social Services and Rural Public Transportation		5. Report Date March 1989	6. Performing Organization Code
7. Author(s) Gwendolyn S. Prater, McKinley Alexander, Jr., Ruth M. Williams		8. Performing Organization Report No.	
9. Performing Organization Name and Address Departments of Social Work and Economics P.O. Box 17041 Jackson State University Jackson, MS 39217-0141		10. Work Unit No. (TRAIS)	11. Contract or Grant No. MS-11-0003
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 7th Street, SW Washington DC 20590		13. Type of Report and Period Covered University Research	
15. Supplementary Notes		14. Sponsoring Agency Code UTS-30	
16. Abstract <p>This research proposed to improve the coordination of specialized transit systems by documenting different systems that have worked effectively as well as deciphering any gaps in management and operations in these selected systems. The study was an analysis of four states' coordination of specialized and rural public transportation services as defined by Section 16(b)(2) and Section 18 of the Urban Mass Transportation Act of 1964, as amended. The four states that comprised the study were North Carolina, South Carolina, Florida and Mississippi. The study explored issues related to barriers, transportation organizations, technical assistance, coordinated transportation, evaluation measures, performance and effectiveness measures, experience and training of agency directors and operating practices. Some conclusions of the study were that when coordination is mandated by law, continuity of efforts is ensured to the greatest extent. Advisory boards can serve as a buffer between resistance forces and those in favor of coordination or can facilitate coalition building. Decision-making boards render policies and procedures that directly influence the day-to-day operation of transit agencies. Perceived barriers to coordination efforts identified by State Departments of Transportation and Health and Human Services respondents included: differences in funding regulations, physical and geographical differences, differences in management style and in clientele needs. Barriers noted by providers included cost of liability insurance, administrative policy and clientele needs. As regards assets to coordination, respondents indicated that more passengers are being served because of state coordination efforts, particularly in rural communities.</p>			
17. Key Words Coordination Section 16 (b)(2) Rural Public Specialized Transportation Florida North Carolina South Carolina Mississippi		18. Distribution Statement This document is available to the public through the National Technical Information Service, Springfield, VA 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 110	22. Price A06

15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-CT-09-2097-90-1	2. Government Accession No. NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 9	
4. Title and Subtitle Inter-District Express Bus for Major Employers and Residential Concentrations		5. Report Date September 1990	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) Greater Bridgeport Regional Planning Agency		10. Work Unit No.	
9. Performing Organization Name and Address Greater Bridgeport Regional Planning Agency 525 Water Street, Room 305 Bridgeport, Connecticut 06604-4902 (203) 366-5405		11. Contractor Grant No. CT-09-2097	
		13. Type of Report and Period Covered	
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration U.S. Department of Transportation Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes . See block no. 18 below for report availability information.	
16. Abstract <p>This study identifies residential concentrations and major employment sites in the Greater Bridgeport Planning Region, and develops a network of express service with support of shuttle bus feeder system from two suburban towns to serve major employment corridors in southwestern Connecticut.</p> <p>The study focuses on coordination of existing public transportation systems' schedules with the proposed express routes. Recommendation resulted from the study pinpoints the interim pre-implementation actions of a comprehensive coordinated transit program.</p> <p>The ever-growing number of private automobile users (excluding car/van poolers) commuting back and forth to work on congested highways demands creative means to attract commuters to public transit.</p>			
17. Key Words Shuttle Bus Congested Highways Public Transit Private Automobile Users		18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, IL 60201; and University of California-Berkeley.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 122	22. Price N/A

1. Report No. UMTA-FL-11-0016-88-1	2. Government Accession No. (NTIS) PB 89-143424/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle A Study of the Impact of Automation on Productivity in Bus Maintenance Facilities.		5. Report Date December 1988	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) Sumanth, DJ, Weiss, HJ, and Adya, B		10. Grant or Project No. UMTA-FL-11-0016	
9. Performing Organization Name and Address Miami University Department of Industrial Engineering Coral Gables, Florida 88124		11. Contract No.	
		13. Type of Report and Period Covered Final Report University Research	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes	
16. Abstract Whether or not the various types of automation and new technologies introduced in a bus transit system really have an impact on productivity is the question addressed in the study. This report describes a new procedure of productivity measurement and evaluation for a county transit system and provides an objective perspective on the impact of automation on productivity in bus maintenance facilities. The research objectives were: to study the impact of automation on total productivity in transit maintenance facilities; to develop and apply a methodology for measuring the total productivity of a Floridian transit maintenance facility (Bradenton-Manatee County bus maintenance facility which has been introducing automation since 1983); and to develop a practical step-by-step implementation scheme for the total productivity-based productivity measurement system that any bus manager can use. All 3 objectives were successfully accomplished. A literature review was conducted and classified as software-related and hardware-related automation. The operational version of the Total Productivity Model (TPM), developed by Sumanth, was selected as the tool for quantifying the productivity concepts applicable to transit operations. TPM is an excellent macro-level measurement system that pinpoints the resources whose utilization needs improving. The practical implication of TPM is that transit management can objectively plan profits based on the ability to reach pre-established targets of total productivity. The 11-step TPM implementation procedure developed in conjunction with the proposed statistical methods enables a transit manager to conduct 'WHAT IF' analyses prior to introducing automation in transit operations.			
17. Key Words Total Productivity Model Productivity Measurement Tool Automation Maintenance Facilities Bus Management Productivity Trends Impact Implementation Guidelines		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 95	22. Price (NTIS) A05

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Technical Report Documentation Page

1. Report No. UMTA-IL-11-0032-89-1	2. Government Accession No. (NTIS) PB 89-194757/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Moving People: An Introduction to Public Transportation Update.		5. Report Date March 1989	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) C. McKnight, RE Paaswell, and RM Michaels		10. Grant or Project No. UMTA-IL-11-0032	
9. Performing Organization Name and Address University of Illinois at Chicago Urban Transportation Center, Suite 7-South Chicago, Illinois 60607-9940		11. Contract No.	
		13. Type of Report and Period Covered Handbook - Second Edition University Research	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes Earlier edition available from the National Technical Information Service (NTIS). NTIS order number is PB 80-182686. (1981)	
16. Abstract This handbook is the second edition of Moving People: An Introduction to Public Transportation. It provides the general public with a brief history of the origins, functions, and objectives of public transportation and explains how public transportation is planned, operated and financed. Why more people don't use public transportation is examined along with user and community benefits. The organizational changes and current role of public transportation are examined along with the issues of costs, sources of funding, private sector involvement, new service strategies and new transit technologies. Future challenges for public transportation, namely--demographic changes, suburban mobility, and job accessibility--are reviewed. Case studies illustrate how transit systems are meeting the emerging challenges. This handbook focuses on transportation services which provide mass transportation within urban areas--bus/electric bus, commuter rail, rapid rail/subway, light rail/streetcar and the newer forms of public transit, paratransit services.			
17. Key Words University Research Introduction Handbook Update Public Transportation History Mass Transit Education Management Planning Financing Future Challenges Information Aid		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 56	22. Price (NTIS) A04

1. Report No. UMTA-IT-06-0353-90-1	2. Government Accession No. (NTIS) PB 90-246752	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Compendium of National Urban Mass Transportation Statistics: 1986 Report Year		5. Report Date APRIL, 1990	6. Performing Organization Code
7. Author(s) F. T. Pachler, Jr., R. Porcelli, R. L. Jordan, B. A. Lederer		8. Performing Organization Report No.	
9. Performing Organization Name and Address Materials, Communication & Computers, Inc. 1500 N. Beauregard Street, Suite 108 Alexandria, VA 22311		10. Work Unit No. (TRIS) UMTA-IT-06-0353	11. Contract or Grant No. DTUM60-89-C-41008
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Annual Report/5th Edition January 1, 1986 to December 31, 1986	
15. Supplementary Notes Earlier editions of Compendium of National Urban Mass Transportation Statistics also available from NTIS: 1985 Report Year (PB 89-109144); 1984 Report Year (PB 87-187324); 1983 Report Year (PB 87-187316); 1982 Report Year (PB 187308).		14. Sponsoring Agency Code UGM	
16. Abstract <p>This report provides summary statistics on the finances and operations of the United States' public transit systems for the 1986 calendar year. These statistics were derived from the database developed through the Urban Mass Transportation Administration's Section 15 Reporting System. This report is intended to complement the <u>National Urban Mass Transportation Statistics: Section 15 Annual Report</u> issued by the Urban Mass Transportation Administration since 1980. That report contains aggregate transit statistics, but focuses principally on the finances and operations of individual transit systems. By contrast, the <u>Compendium</u> provides a national, policy-oriented perspective, highlighting aggregate financial and operational characteristics.</p> <p>In this report, national transit industry financial operational characteristics are illustrated through use of 1) graphics designed to emphasize key transit industry patterns, 2) policy relevant statistics and aggregations, and 3) trend information incorporating statistics from the Section 15 database 1982, 1983, 1984, 1985 and 1986. These characteristics are examined in three chapters: <u>Chapter I - Financial Statistics</u>; <u>Chapter II - Operational Statistics</u>; and <u>Chapter III - Performance Measures</u>. The report also includes an Introduction designed to acquaint readers with the statistics and alert them to issues affecting their use.</p>			
17. Key Words Mass and Public Transportation Revenues, Expenses, Performance Measures, Urbanized Area, Service Supply, Service Utilization, Fleet Size, VOMS		18. Distribution Statement This report is available to the public through the National Technical Information Service in Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 181	22. Price A09

1. Report No. UMTA-MA-06-0173-86-01	2. Government Accession No. (NTIS) PB 89-142962/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle TRANSIT EMPLOYEE ATTENDANCE MANAGEMENT. VOLUME 1. REVIEW OF ATTENDANCE PROGRAMS		5. Report Date June 1, 1986	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) Schwager, DS, MacDorman, LC,		10. Grant or Project No.	
9. Performing Organization Name and Address MacDorman and Associates 4808 North 29th Street Arlington, Virginia 22207		11. Contract No. UMTA-MA-06-0173-86-01	
		13. Type of Report and Period Covered Vol. 1 of 2 Vols. Final Report	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes	
16. Abstract This 2-volume report was prepared as a modification of the report titled Review of Attendance Programs prepared for the Absenteeism Reduction Demonstration Project for the Port Authority of Allegheny County and sponsored by UMTA. Studies indicate that employee absence is a considerable problem in the transit industry. Organizations with more rigorous and comprehensive attendance policies and programs appear to have lower absence rates. This report supports efforts to improve attendance by: providing background information on the importance of improving employee attendance, stressing costs of and impacts associated with absence; summarizing and reviewing existing research and theories on the causes of absenteeism; identifying and describing alternative attendance programs; providing a review of the use and effectiveness of specific attendance programs both within and outside the transit industry; and introducing a recommended framework for an effective attendance program including the identification of important management activities needed to support attendance programs. Volume 2, Transit Attendance Management Information System (TAMIS) presents a prototype TAMIS which can serve as a model for the development of monitoring and reporting procedures to improve management of employee attendance and the effects of absence.			
17. Key Words EMPLOYEE ABSENTEEISM ATTENDANCE MANAGEMENT DISCIPLINE POLICIES INCENTIVE PROGRAMS ATTENDANCE PLAN MANAGEMENT/TRAINING UMTA SECTION 6		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 120	22. Price (NTIS) A06

1. Report No. UMTA-MA-06-0173-86-02	2. Government Accession No.(NTIS) PB 89-142970/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle TRANSIT EMPLOYEE ATTENDANCE MANAGEMENT. VOLUME 2: REVIEW OF ATTENDANCE PROGRAMS.		5. Report Date June 1, 1986	6. Performing Organization Code
7. Author(s) Schwager, DS, McDorman, LC,		8. Performing Organization Report No.	
9. Performing Organization Name and Address MacDorman and Associates 4808 North 29th Street Arlington, Virginia		10. Work Unit No. (TRAIS)	11. Contract or Grant No. UMTA-MA-06-0173-86-02
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Vol. 2 of 2 Vols. Final Report	
15. Supplementary Notes		14. Sponsoring Agency Code UTS-30	
16. Abstract An organization's ability to manage employee attendance is determined by the quality, timeliness, and accuracy of its attendance information system. Although some systems have highly sophisticated attendance information systems, opportunities for improvements still exist. Volume 2 presents a prototype Transit Attendance Management Information System (TAMIS). It can serve as a model for development of monitoring and reporting procedures to improve the management of employee attendance and the effects of absence. TAMIS is intended to provide a basis for consistent, comprehensive and straightforward collection, reporting and utilization of absenteeism data about individuals, groups of employees, and the entire work force of a transit system. Shortcomings in current employee attendance management practices of transit systems are identified and discussed to demonstrate the usefulness of TAMIS. Volume 1 of this study is titled Review of Attendance Programs. It provides background information on attendance, improvement programs, programs used inside and outside of transit, and a model for improving employee attendance.			
17. Key Words EMPLOYEE ABSENTEEISM MANAGEMENT INFORMATION SYSTEM REPORTING ATTENDANCE MANAGEMENT TRAINING UMTA SECTION 6		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 53	22. Price A04

1. Report No. UMTA-NY-06-0105-88-1	2. Government Accession No. (NTIS) PB 89-143010/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Upgrade Training Program: A Joint Transport Workers Union/New York City Transit Authority Training Program.		5. Report Date July 1988	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) J.T. Burnell, A.A. Sobin, T.G. Rizzitiello		10. Grant or Project No. UMTA-NY-06-0105	
9. Performing Organization Name and Address Transport Workers Union of America-Local 100 80 West End Avenue, 6th Floor New York, New York 10023		11. Contract No.	
		13. Type of Report and Period Covered Final Report	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes	
16. Abstract This is the final report of a unique 3-year training program for bus maintainer with tripartite sponsorship: Transport Workers Union of America--Local 100, the New York City Transit Authority, and the Borough of Manhattan Community College of the City University of New York. This demonstration project grew out of a two-fold need to provide career advancement opportunities for entry-level workers and to supply trained bus maintainers for the NYCTA. The purpose of the program was to provide basic education and maintenance skills to prepare bus maintainer's helpers for promotion to bus maintainer. This report provides a description of the Training Program, discussion of primary benefits, major and educational recommendations. The findings are based on qualitative and quantitative data collected through interviews and questionnaires administered to trainees, program graduates, representatives of labor and management, administrative and instructional staff. The success of this 3-year demonstration project clearly exemplifies that labor and management can work cooperatively together as allies for the common good of all constituencies. A highly trained and highly motivated workforce offers the potential of providing a modern mass transit delivery system to benefit the riding public is the resulting conclusion.			
17. Key Words Training Program Bus Maintainer Management New York City Transit Authority Labor/Management Training Program Tripartite Model UMTA Section 6		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 36	22. Price (NTIS) A03

15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-OR-11-0002-86-2	2. Government Accession No. (NTIS) PB 89-218028/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Transit Agency Characteristics: An Industry Profile.		5. Report Date June 1986	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) CR White and SM Edner with assistance from K. Ketcheson		10. Grant or Project No. UMTA-OR-11-0002-86-2	11. Contract No.
9. Performing Organization Name and Address Portland State University PO Box 751, Center for Transit Research Portland, Oregon 97207		13. Type of Report and Period Covered University Research Transit Manager Study Phase 1 of 3 Phases	
		14. Sponsoring Agency Code UTS-30	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590			
15. Supplementary Notes Related Reports: Contribution of Manager and Organizational Characteristics to Transit Agency Performance: National Study of US Transit Providers, UMTA-OR-11-0004-89-1, and Understanding Dynamics of Innovation in Urban Transit, UMTA-OR-11-0003-86-1.			
16. Abstract This report documents the first phase of a 3-phase Transit Manager study designed to survey management personnel in the transit industry. This study reports on a survey sent to 483 transit agencies in 1983 requesting information concerning agency institutional type, operating characteristics, service area population, employment, management pool, finances and recruitment problems for 1979-83. Surveys were returned by 207 agencies, 171 of them were accompanied by organization charts. The purpose of the survey was to solicit institutional information concerning agency organizational structures and changes during 1979-83 and to serve as background information for a later study of agency managers. Demographically, respondents typified small to medium sized agencies with a few very large agencies. No strong association was found between institutional types and service characteristics. Agencies appear to be hierarchical in structure. Vertical, departmental and administrative differentiation were related to agency size, and the organizational structure appeared to be related to institutional setting. Only about 20 percent of the sample indicated severe manager recruiting difficulties. Operations and maintenance managers were most frequently identified as difficult to locate. No particular size or institutional type of agency appeared to have more difficulty in recruiting. The study results describe a managerial context that is extremely diverse across agency characteristics, change in attributes, and organizational patterns. Size, location, population served and revenue don't seem to dictate functional requirements for management structure. Overall, the study established that transit is primarily comprised of small to medium sized agencies, subunits of city or county governments.			
17. Key Words Transit Manager Study Management Recruitment Finance Organizational Patterns Change Agency Demographics Survey Institutional Information		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 124	22. Price (NTIS) A06

1. Report No. UMTA-OR-11-0004-89-1	2. Government Accession No. (NTIS) PB 89-218044	3. Recipient's Catalog No. UMTRIS/UMTA Section 11	
4. Title and Subtitle The Contribution of Manager and Organizational Characteristics to Transit Agency Performance: A National Study of United States Transit Providers.		5. Report Date May 1989	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) Charles White and Sheldon M. Edner		10. Grant or Project No. UMTA-OR-11-0004	
9. Performing Organization Name and Address Portland State University PO Box 751, Center for Urban Studies Portland, Oregon 97207-0751		11. Contract No.	
		13. Type of Report and Period Covered University Research Transit Manager Study Phase 3 of 3	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes Related reports: Understanding the Dynamics of Innovation in Urban Transit, S. Adler, UMTA-OR-11-0003-86-1, and Transit Agency Characteristics: Industry Profile, CR White, UMTA-OR-11-0002-86-2.	
16. Abstract This report presents the results of the third phase of a 3-part study of management issues in the transit industry. The objective of this report was to relate attitudinal and demographic characteristics of transit management personnel and agency institutional characteristics to agency performance. The analysis purports to determine the relative contributions of manager and institutional characteristics as explanatory facts in agency performance. The study was based upon responses of 1033 managers from 134 agencies representing the full range of agency size, institutional and locational characteristics. Data was drawn from surveys of agencies and managers, and from Section 15 Performance Measures. The first 3 chapters of this report present background information and an overview of the demographic and attitudinal characteristics of the study sample of transit management personnel. Chapter 4 explores the extent to which those characteristics are related to 6 measures of agency performance--cost and labor efficiency, service effectiveness, maintenance efficiency (measured in 2 different ways), and vehicle efficiency. Implications of this research are discussed in the fifth and concluding chapter. Findings show that manager characteristics and attitudes do not appear to be consistently associated with performance outcomes. That is, while the analysis established them as important factors, these relationships point in differing directions. Thus, efforts to increase manager capability may also add to the forces differentiating organizational capacity without contributing to overall industry performance. In sum, the turbulence experienced by the industry may not have lead to greater refinement of performance abilities, but to greater tensions.			
17. Key Words Transit Managers Profile Industry Profile Management Performance Measures Characteristics Organizational Structure Linkages Agency Performance Surveys New and Old Professionals UMTA Section 11		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 68	22. Price (NTIS) A04

1. Report No. UMTA-OR-11-0005-89-1	2. Government Accession No.(NTIS) PB 89-190979	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Study of Human Factors in Public Transportation Safety.		5. Report Date March 1989	
		6. Performing Organization Code	
7. Author(s) Layton, R., Hunter, K., Safford, R.		8. Performing Organization Report No.	
9. Performing Organization Name and Address Oregon State University Transportation Research Institute Corvallis, Oregon 97331-2302		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. UMTA-OR-11-0005	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Final Report University Research	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes			
16. Abstract The purpose of this study was to use a systematic approach to examine the human factors in transit safety, namely--the safety problems of fixed-route bus operations. Human factors related to bus driver and passenger Safety were examined, and special emphasis was given to problems encountered by the elderly and handicapped. Anthropometric analysis of bus cockpits were discussed along with human factors and problems related to the driver's seat. A major problem identified and analyzed indepth for passenger safety was the use of powered scooter-type wheelchairs (PSTW). Guidelines and standards for wheelchairs and restraints on public transit vehicles are recommended along with conclusions on driver safety, passenger safety, and transit system safety. Problems relating to bus scheduling and their impact on driver safety were examined. A procedure dubbed SCRAM (Scheduling Constraint and Route Analysis Model) was developed and can be used to examine the variations in any particular bus schedule. The systems approach and analysis model developed in this report are applicable to studies of human factors problems in other modes of public transit such as light rail and mass transit. This report provides a bibliography, list of references, and 4 Appendices that report on the human factors workshop in public transportation safety.			
17. Key Words Human Factors Safety Bus Driver Passenger System Scooter-Type Wheelchair Tie-Downs Wheelchair Restraints SCRAM Model Bus Cockpit Safety Fixed-Route Bus UMTA Section 11		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 214	22. Price A10

15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-PA-06-0085-89-1	2. Government Accession No. (NTIS) PB 90-148297/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle RAIL CAR MAINTENANCE MANAGEMENT INFORMATION SYSTEM (MMIS)		5. Report Date July, 1989	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) Port Authority of Allegheny County		10. Work Unit No. (TRAIS) UMTA-PA-06-0085	
9. Performing Organization Name and Address Port Authority of Allegheny County Beaver and Island Avenues Pittsburgh, PA 15233		11. Contract or Grant No. Final Report	
		13. Type of Report and Period Covered Final 1985-1989	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-20	
		15. Supplementary Notes	
16. Abstract Prior to completion of its Stage I Light Rail Vehicle (LRV) procurement and Presidents' Conference Committee (PCC) rehabilitation program, Port Authority of Allegheny County's (PAT) Rail Car Maintenance Management Information System (MMIS) consisted of a paper record system. The purpose of this project was to develop, test and implement a computerized rail car MMIS for both rail car types, as well as prepare a report on the system which would be useful to other transit authorities. PAT's MMIS, as implemented, has the following capabilities: (1) improve maintenance planning, analysis, management and evaluation; (2) enhance the concept of cost-effective transit system management; and (3) increase rail transit effectiveness and efficiency. It also provides reliability and maintainability statistics, labor and material costs, warranty program support, preventive maintenance schedules, parts consumption, procurement and inventory management, car histories, and a variety of reports. This report describes the PAT MMIS project, as designed for the needs of the PAT Maintenance Department and support personnel.			
17. Key Words Computerized Maintenance Maintenance Management Information Light Rail Railcar Maintenance Cobol Rapid Rail Commuter Rail Management Information System (MMIS) Design Implementation PAT		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 142	22. Price (NTIS) A07

15. Transit Management/Training

Technical Report Documentation Page

1. Report No. UMTA-PA-06-0115-89-2	2. Government Accession No. (NTIS) PB 90-219106	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6'	
4. Title and Subtitle DRUG AND ALCOHOL PRE-EMPLOYMENT SCREENING HANDBOOK A MODEL FOR THE TRANSIT INDUSTRY		5. Report Date July 1989	6. Performing Organization Code
7. Author(s) Richard A. Press, M. D. John A. Eakes, Ph.D.		8. Performing Organization Report No.	
9. Performing Organization Name and Address SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY 841 CHESTNUT STREET, SIXTH FLOOR PHILADELPHIA, PA 19107-4484		10. Work Unit No. (TRAIS)	11. Contract or Grant No. UMTA-PA-06-0115
12. Sponsoring Agency Name and Address U. S. DEPARTMENT OF TRANSPORTATION URBAN MASS TRANSPORTATION ADMINISTRATION 400 SEVENTH STREET, S. W. WASHINGTON, D. C. 20590		13. Type of Report and Period Covered HANDBOOK	
15. Supplementary Notes		14. Sponsoring Agency Code UTS-32	
16. Abstract This Handbook presents a policy and procedures model for pre-employment drug and alcohol testing for transit agencies. The model was designed to be applicable to a wide variety of transit agencies and to be consistent with UMTA and other applicable regulations. The information is presented in narrative form. Representatives from ten transit organizations attended and discussed pre-employment testing. The basis of discussion was the then current SEPTA procedures. Agencies compared and contrasted their policies with the SEPTA model. A policy working group and a procedures working group developed general pre-employment testing guidelines applicable to all UMTA grantee properties. The model recommends that prospective employees be first informed of pre-employment screening during initial interviews with the personnel department. A consent for drug testing should be discussed at the physical exam and be obtained in writing from the applicant. If consent is refused, the examination process ends. All applicants should be tested, regardless of their position. Photo identification should be required at the physical exam and a medical questionnaire should be completed. The process should include several opportunities for the applicant to identify any recent drug use.			
17. Key Words PRE-EMPLOYMENT TESTING DRUG TESTING LABORATORY STANDARDS DRUG AND ALCOHOL		18. Distribution Statement DOCUMENT AVAILABLE TO THE PUBLIC THROUGH NATIONAL TECHNICAL INFORMATION SERVICE (NTIS), SPRINGFIELD, VA 22161 TELEPHONE: (703) 487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 36	22. Price A03

15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-TX-11-0019-89-1	2. Government Accession No.(NTIS) PB 89-165815/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 11	
4. Title and Subtitle Automation in the Metropolitan Transit Authority of Harris County, Texas, and Its Effect on Productivity.		5. Report Date February 1989	6. Performing Organization Code
7. Author(s) RE Crew, Jr., and GW Weiher		8. Performing Organization Report No.	
9. Performing Organization Name and Address University of Houston 4800 Calhoun Road Houston, Texas 77204		10. Work Unit No. (TRAIS)	11. Contract or Grant No. UMTA-TX-11-0019
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered University Research Final Report June 1987 - Feb. 1989	
15. Supplementary Notes		14. Sponsoring Agency Code UTS-30	
<p>16. Abstract</p> <p>In 1979 the Harris County (Texas) Metropolitan Transit Authority purchased HouTran--a bus system "in ruins." In 1985 the same bus system (renamed Metro) was recognized as one of the best in the country. Many factors contributed to this dramatic change--new management, new personnel, new productivity brought about by the installation of an automated management information system (MIS). The purpose of this report is to systematically organize and share with other agencies Metro's experience and perception of the value of implementing these varied and automated systems. This report describes the process by which a multi-element management information system was installed at Houston Metro and analyzes the impact of that installation on human productivity. The report begins with a history of mass transit events in Houston and describes the environment into which the MIS was introduced. Two separate tasks were undertaken. The process analysis portion (task) of this report documents the MIS implementation process and identifies problem areas and strategies addressing such problems. The impact analyses portion measures productivity in each of the automated areas and analyzes relationships between the automated systems and productivity. Manual systems that were automated--vehicle maintenance, scheduling, accounting and others --and the benefits derived from MIS are discussed and charted-out. Although productivity at Metro increased substantially between 1979-85, the study does not link these improvements solely to the implementation of automated systems. However, a plausible connection is established between the introduction of the vehicle maintenance program and the decline in the number of employees in that department.</p>			
17. Key Words Management Information Systems Houston Metro Productivity Impacts Automation Implementation Plan Quantitative Techniques Benefits Box-Jenkins Model Installation Plan Qualitative Improvements Planning		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 67	22. Price A04

15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-TX-08-8014-89-3	2. Government Accession No. NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Automated Transit Ridership Data Collection. Pilot Test and User's Guide.		5. Report Date September 1989	6. Performing Organization Code
7. Author(s) K.E. Barnes and T. Urbanik II		8. Performing Organization Report No. Technical Report 1087-2	
9. Performing Organization Name and Address The Texas A&M University System Texas Transportation Institute College Station, Texas 77843-3135		10. Work Unit No. UMTA-TX-08-8014	11. Contract or Grant No.
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration U.S. Department of Transportation Washington, D.C. 20590		13. Type of Report and Period Covered Planning Study No. 2-11-87-1087	
15. Supplementary Notes . See block no. 18 below for report availability information.		14. Sponsoring Agency Code UMTA Region 6	
16. Abstract <p>This study was designed to provide Texas small transit agencies with a cost effective means of collecting, checking and summarizing bus ridership data--an automated data collection (ADC) system. The report is a continuation of a Phase I study that tested an ADC system developed by Multisystems, Inc., identified it as the most cost effective and versatile system for Texas small transit agencies, and recommended that it be implemented at a local transit agency and evaluated in actual operation. The ADC system consisted of two integrated software packages: Check*mate is the software package for automating the collection of bus ridership data and uses a portable computer; and Transit Information Manager (TIM) software is the database and uses a PC to correct, evaluate and generate reports. This report documents the pilot testing and evaluation of the ADC system in actual use at CITIBUS, a local transit agency in Lubbock, Texas. It describes the hardware and software components of the automated system, and offers some of the CITIBUS personnel observations, conclusions and recommendation regarding the ADC system. The study developed and documented a supplement to the manufacturer's user's manual for use with the two software packages Check*mate and TIM. A major concern resulting from the pilot testing of the automated system was the considerable time required for ADC system setup. Overall the pilot test demonstrated that the system could be used effectively by transit systems to improve efficiency.</p>			
17. Key Words Automated Data Collection UMTA Section 8 Bus Ridership Data CITIBUS Pilot Test Small Systems Check*mate RIDECHEC Planning Computerized System Local Transit User's Manual Multisystems		18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, Il 60201; and University of California-Berkeley.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 69	22. Price

1. Report No. UMTA-VA-06-0127-88-1	2. Government Accession No. (NTIS) PB 89-160097	3. Recipient's Catalog No. UMTRIS/Section 15	
4. Title and Subtitle National Urban Mass Transportation Statistics. 1986 Section 15 Annual Report.		5. Report Date June 1988	
		6. Performing Organization Code	
7. Author(s) R. Shorter, and WC Ammann		8. Performing Organization Report No.	
9. Performing Organization Name and Address Compex Corporation 5500 Cherokee Avenue, Suite 500 Alexandria, Virginia 22312		10. Grant or Project No. UMTA-VA-06-0127	
		11. Contract No. DTUM60-86-C-71323	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Annual Report Jan. 1, 1986-Dec. 31, 1986	
		14. Sponsoring Agency Code UGM-13	
15. Supplementary Notes Other Section 15 reports available from NTIS include: FY ending between July 1, 1978-June 30, 1979; July 1, 1979-June 30, 1980; July 1, 1980-June 30, 1981; July 1, 1980-June 30, 1981 (Supplement); and July 1, 1981-June 30, 1982; and Compendium for FY 1985.			
16. Abstract <p>This report summarizes the financial and operating data submitted annually to the Urban Mass Transportation Administration (UMTA) by the nation's public transit operators, pursuant to Section 15 of the Urban Mass Transportation (UMT) Act of 1964, as amended. The report also includes a subset of Section 15 data for use in computing Section 9 apportionments. Section 9 is a formula grant program for capital, operating, and certain other assistance created by the Surface Transportation and Uniform Relocation Assistance Act of 1987. The report consists of four chapters. Chapter 1 contains an introduction to the Section 15 reporting system and its relationship to the Section 9 program. Chapter 2 contains aggregate industry statistics derived from the complete Section 15 reports which were submitted. Chapter 3 contains financial and operating data on the individual transit systems which submitted complete Section 15 reports. Chapter 4 contains the operating statistics which were used in the computation of the FY 1988 Section 9 apportionments. All data in this report are for transit fiscal years ending on January 1 and December 31, 1986.</p>			
17. Key Words Data Urban Mass Transportation National Statistics Section 15 Revenues Expenses Maintenance Data Accident Passenger Miles Route Miles Fleet Inventory Performance Indicators		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 636	22. Price (NTIS) A99

15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-VA-06-0127-89-1	2. Government Accession No. (NTIS) PB 90-146432/AS	3. Recipient's Catalog No. UINTRIS/UMTA SECTION 6	
4. Title and Subtitle NATIONAL URBAN MASS TRANSPORTATION STATISTICS, 1987 Section 15 Annual Report		5. Report Date September 1989	
		6. Performing Organization Code	
7. Author(s) Rhoda Shorter, UMTA Section 15 Program Manager William C. Ammann, Compex Project Manager		8. Performing Organization Report No.	
9. Performing Organization Name and Address Compex Corporation 5500 Cherokee Ave. Suite 500 Alexandria, VA 22312		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. DTUM60-86-C-71323 VA-06-0127	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Grants Management Washington, DC 20590		13. Type of Report and Period Covered Annual Report January 1, 1987 to December 31, 1987	
		14. Sponsoring Agency Code UGM-13	
15. Supplementary Notes			
16. Abstract <p>This report summarizes the financial and operating data submitted to the Urban Mass Transportation Administration (UMTA) by the nation's public transit operators, pursuant to Section 15 of the Urban Mass Transportation (UMT) Act of 1964, as amended. This report also includes a subset of Section 15 data compiled for the Section 9 apportionments. Section 9 is a formula grant program for capital, operating, and certain other assistance created by the Surface Transportation Assistance Act of 1982 (which amended the UMT Act) and reauthorized by the Surface Transportation and Uniform Relocation Assistance Act of 1987.</p> <p>This report consists of four chapters. Chapter 1 contains an introduction to the Section 15 reporting system and its relationship to the Section 9 program. Chapter 2 contains aggregate industry statistics derived from the complete Section 15 reports which were submitted. Chapter 3 contains financial and operating data on the individual transit systems that submitted complete Section 15 reports. Chapter 4 contains the operating statistics that were compiled for the FY 1989 Section 9 apportionments.</p> <p>All data in this report are for transit years ending on or between January 1 and December 31, 1987.</p>			
17. Key Words mass transportation; public transportation; transit data; revenues; expenses; maintenance data; accident data; formula-apportioned assistance; vehicle miles; passenger miles; route miles; fleet inventory; performance indicators		18. Distribution Statement DOCUMENT IS FOR SALE BY THE SUPERINTENDENT OF DOCUMENTS, U. S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20401. SEE ORDER FORM ON LAST PAGE OF THIS REPORT.	
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15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-VA-06-0127-90-1	2. Government Accession No. (NTIS) PB 90-191560	3. Recipient's Catalog No.	
4. Title and Subtitle NATIONAL URBAN MASS TRANSPORTATION STATISTICS. 1988 Section 15 Annual Report		5. Report Date December 1989	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) Rhoda Shorter, UMTA Section 15 Program Manager William C. Ammann, Compex Project Manager		10. Work Unit No. (TR AIS)	
9. Performing Organization Name and Address Compex Corporation 5500 Cherokee Ave. Suite 500 Alexandria, VA 22312		11. Contract or Grant No. DTUM60-86-C-71323 VA-06-0127	
		13. Type of Report and Period Covered Annual Report January 1, 1988 to December 31, 1988	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Grants Management Washington, DC 20590		14. Sponsoring Agency Code UGM-13	
		15. Supplementary Notes	
16. Abstract <p>This report summarizes the financial and operating data submitted to the Urban Mass Transportation Administration (UMTA) by the nation's public transit operators, pursuant to Section 15 of the Urban Mass Transportation (UMT) Act of 1964, as amended.</p> <p>This report consists of three chapters. Chapter 1 contains an introduction to the Section 15 reporting system and its relationship to the Section 9 program. Chapter 2 contains aggregate industry statistics derived from the complete Section 15 reports which were submitted. Chapter 3 contains financial and operating data on the individual transit systems that submitted complete Section 15 reports.</p> <p>All data in this report are for transit years ending on or between January 1 and December 31, 1988.</p>			
17. Key Words mass transportation; public transportation; transit data; revenues; expenses; maintenance data; accident data; formula-apportioned assistance; vehicle miles; passenger miles; route miles; fleet inventory; performance indicators		18. Distribution Statement DOCUMENT IS FOR SALE BY THE SUPERINTENDENT OF DOCUMENTS, U. S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20401. SEE ORDER FORM ON LAST PAGE OF THIS REPORT.	
19. Security Classif. (of this report) UNCLASSIFIED	20. Security Classif. (of this page) UNCLASSIFIED	21. No. of Pages 644	22. Price A99

15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-VA-11-0016-89-1	2. Government Accession No. (NTIS) PB 89-168207	3. Recipient's Catalog No. UMTRIS/UMTA Section 11	
4. Title and Subtitle Use of Video Technology in Bus Maintenance.		5. Report Date February 1989	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author/s GE Mouchahoir, and DJ Stephanou		10. Work Unit No. (TRAIS)	
9. Performing Organization Name and Address George Mason University Dept. of Electrical & Computer Engineering Fairfax, Virginia 22030		11. Contractor Grant No. UMTA-VA-11-0016	
		13. Type of Report and Period Covered Final Report University Research	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes	
16. Abstract Use of video technology as an effective training tool is rapidly increasing. Technological change has forced industry to adopt new competitive strategies--a new blend of skills and knowledge. Training is redefined as a skill building process rather than information giving. The purpose of this research is to determine the video technology available in bus maintenance, to evaluate its effectiveness and cost-effectiveness, and to examine its future application as a training tool. This report begins with a discussion of the problems associated with changes in the training process and the design, organization and evaluation of training programs. Chapter 3 looks into the problems and solutions of bus maintenance programs in the transit industry. Chapter 4 discusses a wide-range of training technologies such as TV Networking, Computer-Assisted Instructions, Optical Videodisc Systems and others. Chapter 5 provides a two-phased approach for evaluating and assessing video technology, and Chapter 6 discusses the cost-effectiveness of new training technologies. The final Chapter 7 looks at the future of video technology and its integration with expert systems. This research concludes that video technology is a cost-effective training technique whose use is rapidly expanding. It requires a larger initial budget for course development, but lower ongoing per usage cost as compared to conventional methods. This report provides a list of Video Vendors, the results of the Ford Study, and a List of References.			
17. Key Words UMTA Section 11 Video Technology Training Education Bus Maintenance Cost-Effectiveness Training Technologies Evaluation Program Design Future Integration Expert Systems		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 84	22. Price A05

15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-VA-06-0127-89-1	2. Government Accession No. PB 90-146432/AS	3. Recipient's Catalog No. UMRIS/UMTA SECTION 6	
4. Title and Subtitle NATIONAL URBAN MASS TRANSPORTATION STATISTICS, 1987 Section 15 Annual Report		5. Report Date September 1989	
		6. Performing Organization Code	
7. Author(s) Rhoda Shorter, UMTA Section 15 Program Manager William C. Ammann, Compex Project Manager		8. Performing Organization Report No.	
9. Performing Organization Name and Address Compex Corporation 5500 Cherokee Ave. Suite 500 Alexandria, VA 22312		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. DTUM60-86-C-71323 VA-06-0127	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Grants Management Washington, DC 20590		13. Type of Report and Period Covered Annual Report January 1, 1987 to December 31, 1987	
		14. Sponsoring Agency Code UGM-13	
15. Supplementary Notes			
16. Abstract <p>This report summarizes the financial and operating data submitted to the Urban Mass Transportation Administration (UMTA) by the nation's public transit operators, pursuant to Section 15 of the Urban Mass Transportation (UMT) Act of 1964, as amended. This report also includes a subset of Section 15 data compiled for the Section 9 apportionments. Section 9 is a formula grant program for capital, operating, and certain other assistance created by the Surface Transportation Assistance Act of 1982 (which amended the UMT Act) and reauthorized by the Surface Transportation and Uniform Relocation Assistance Act of 1987.</p> <p>This report consists of four chapters. Chapter 1 contains an introduction to the Section 15 reporting system and its relationship to the Section 9 program. Chapter 2 contains aggregate industry statistics derived from the complete Section 15 reports which were submitted. Chapter 3 contains financial and operating data on the individual transit systems that submitted complete Section 15 reports. Chapter 4 contains the operating statistics that were compiled for the FY 1989 Section 9 apportionments.</p> <p>All data in this report are for transit years ending on or between January 1 and December 31, 1987.</p>			
17. Key Words mass transportation; public transportation; transit data; revenues; expenses; maintenance data; accident data; formula-apportioned assistance; vehicle miles; passenger miles; route miles; fleet inventory; performance indicators		18. Distribution Statement DOCUMENT IS FOR SALE BY THE SUPERINTENDENT OF DOCUMENTS, U. S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20401. SEE ORDER FORM ON LAST PAGE OF THIS REPORT.	
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15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-VA-06-0127-90-1	2. Government Accession No. (NTIS) PB 90-191560	3. Recipient's Catalog No.	
4. Title and Subtitle NATIONAL URBAN MASS TRANSPORTATION STATISTICS. 1988 Section 15 Annual Report		5. Report Date December 1989	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) Rhoda Shorter, UMTA Section 15 Program Manager William C. Ammann, Compex Project Manager		10. Work Unit No. (TRAIS)	
9. Performing Organization Name and Address Compex Corporation 5500 Cherokee Ave. Suite 500 Alexandria, VA 22312		11. Contract or Grant No. DTUM60-86-C-71323 VA-06-0127	
		13. Type of Report and Period Covered Annual Report January 1, 1988 to December 31, 1988	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Grants Management Washington, DC 20590		14. Sponsoring Agency Code UGM-13	
		15. Supplementary Notes	
16. Abstract This report summarizes the financial and operating data submitted to the Urban Mass Transportation Administration (UMTA) by the nation's public transit operators, pursuant to Section 15 of the Urban Mass Transportation (UMT) Act of 1964, as amended. This report consists of three chapters. Chapter 1 contains an introduction to the Section 15 reporting system and its relationship to the Section 9 program. Chapter 2 contains aggregate industry statistics derived from the complete Section 15 reports which were submitted. Chapter 3 contains financial and operating data on the individual transit systems that submitted complete Section 15 reports. All data in this report are for transit years ending on or between January 1 and December 31, 1988.			
17. Key Words mass transportation; public transportation; transit data; revenues; expenses; maintenance data; accident data; formula-apportioned assistance; vehicle miles; passenger miles; route miles; fleet inventory; performance indicators		18. Distribution Statement DOCUMENT IS FOR SALE BY THE SUPERINTENDENT OF DOCUMENTS, U. S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20401. SEE ORDER FORM ON LAST PAGE OF THIS REPORT.	
19. Security Classif. (of this report) UNCLASSIFIED	20. Security Classif. (of this page) UNCLASSIFIED	21. No. of Pages 644	22. Price A99

1. Report No. UMTA-WI-11-0011-89-1	2. Government Accession No. (NTIS) PB 89-162945	3. Recipient's Catalog No. UMTRIS/UMTA Section 11	
4. Title and Subtitle Market Based Transit Facility Design.		5. Report Date February 1989	
		6. Performing Organization Code	
7. Author(s) EA Beimborn, HZ Rabinowitz, PS Lindquist and DM Oppen		8. Performing Organization Report No.	
9. Performing Organization Name and Address University of Wisconsin-Milwaukee Center for Urban Transportation Studies Milwaukee, Wisconsin 53201		10. Grant or Project No. UMTA-WI-11-0011	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered University Research Final Report	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes			
16. Abstract <p>The guidelines provided in this document reflect the view that transit services and facilities should be designed from a market-based point of view. The purpose of this report is to provide planning and design guidelines for transit stations, stops and terminals. Design elements are suggested that directly relate promoting the success of development activities and transit services. The report discusses general development policies and provides guidelines for the planning and design of six station types: CBD rail stations, Neighborhood rail, Park-and-Ride stations, Transit malls, Transfer centers and Local stops. These stations are examined through four phases of planning and design: Systems planning, Site planning, station design and Operations/management. Each station type is discussed in terms of location, market, connections, access, information, image, user comfort, safety and security, operations and management. This report was developed by a research team with engineering, architecture, planning and urban geography backgrounds. Information was compiled from site visits and transit related literature, human behavioral analysis and planning studies. The research concepts in this report are clearly illustrated and easily grasped.</p>			
17. Key Words Joint Development Market-Based Transit Facility Design Planning Guidelines Stations Terminals CBD Rail Station Park-And-Ride Bus Stop Transit Mall Transfer Center Station Design Neighborhood Rail		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 241	22. Price (NTIS) All

1. Report No. UMTA-TRIC-88-1	2. Government Accession No.(NTIS) PB 89-214720	3. Recipient's Catalog No. UMTRIS	
4. Title and Subtitle A Directory of Urban Public Transportation Service, August 1988.		5. Report Date August 1988	
		6. Performing Organization Code UTS-32	
7. Author(s) Prepared by Helen M. Tann		8. Performing Organization Report No. UMTA-TRIC-88-1	
9. Performing Organization Name and Address U. S. Department of Transportation Urban Mass Transportation Administration Office of Technical Assistance and Safety 400 7th Street, S.W., Washington, D.C. 20590		10. Work Unit No. (TRAIS) TRIC-88-1	
		11. Contract or Grant No. TRIC-88-1	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Urban Transit Directory January 1988 - June 1988	
		14. Sponsoring Agency Code UTS-32	
15. Supplementary Notes This Directory supercedes all earlier editions.			
16. Abstract This is the 1988 edition of the Directory of Urban Public Transportation Service. This Directory lists transit information for 931 conventional and specialized local transit services in 316 urbanized areas (UZAs) of over 50,000 population. The UZAs shown in this Directory have been identified in a U.S. Department of Census Supplementary Report (Publication No. PC80-S1-14), entitled: Population and Land Area of Urbanized Areas for the United States and Puerto Rico: 1980 and 1970. This Directory is organized to meet a wide variety of informational needs for the user. Chart-type sheets in the Directory show a particular transit system name, its number of peak vehicles, the agency contact person, and the address and telephone number of the contact person. The following lists are provided in this Directory: Transit Agencies; UZAs Listed by Population; UZAs that Cross State Lines; Vehicle Summary Counts; and a Glossary of Terms. Update forms are included in the back of the Directory so that transit personnel may conveniently submit corrected information to be included in the next edition of the Directory.			
17. Key Words Buses; Demand Responsive; Directories; Fixed Route; Light Rail; Management; Peak Hour Vehicles; Private Transportation; Public Transportation; Rapid Rail; Transit System Personnel; Transit Systems; Urban Areas		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 108	22. Price (NTIS) A06

15. Transit Management/Training

Technical Report Documentation Page

1. Report No. UMTA-UTS-5-90-1	2. Government Accession No. (NTIS) PB 90-174145/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle TECHNICAL ASSISTANCE AND SAFETY PROGRAMS: Fiscal Year 1989 Project Directory		5. Report Date January 1990	
		6. Performing Organization Code UTS-5	
		8. Performing Organization Report No.	
7. Author(s) Prepared by Edith M. Rodano		10. Work Unit No. (TRAI5)	
9. Performing Organization Name and Address Program Management Staff, UTS-5 Office of Technical Assistance and Safety Urban Mass Transportation Administration Washington, D. C. 20590		11. Contract or Grant No.	
		13. Type of Report and Period Covered Annual Report Fiscal Year 1989	
12. Sponsoring Agency Name and Address U. S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		14. Sponsoring Agency Code UMTA	
		15. Supplementary Notes	
16. Abstract This Directory contains brief descriptions of Technical Assistance and Safety Projects initiated during Fiscal Year 1989 by the Office of Technical Assistance and Safety (UTS), Urban Mass Transportation Administration (UMTA) of the U. S. Department of Transportation. Its purpose is to inform the public and especially the transit industry of the nature and scope of work underway to assist State and local agencies in improving services and reducing the cost of public transportation. Under the Technical Assistance and Safety Program, assistance is provided in a broad range of disciplines, including Suburban Mobility Initiatives, Mobility Enhancement, Public/Private Partnerships, Human Resources Management, Managerial Training Grants, University Research and Training, Rural Transportation, Rail Modernization, Transportation System Initiatives, Safety and Security, and University Transportation Centers.			
17. Key Words Technical assistance, transportation, research, safety, public/private, rural, mobility, management, training, rail, initiatives, security, universities, centers, suburban, development, joint		18. Distribution Statement Available to the public through the National Technical Information Service Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 62	22. Price A04

15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-UTS-22-89-1	2. Government Accession No. (NTIS) PB 89-168199	3. Recipient's Catalog No. UMTRIS	
4. Title and Subtitle TECHNICAL ASSISTANCE AND SAFETY PROGRAMS: Fiscal Year 1988 Project Directory		5. Report Date January 1989	
		6. Performing Organization Code UTS-22	
7. Author(s) Prepared by Edith M. Rodano		8. Performing Organization Report No.	
9. Performing Organization Name and Address Program Management Division, UTS-22 Office of Technical Assistance and Safety Urban Mass Transportation Administration Washington, D. C. 20590		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. UMTA-UTS-22	
12. Sponsoring Agency Name and Address U. S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		13. Type of Report and Period Covered Annual Report Fiscal Year 1988	
		14. Sponsoring Agency Code UMTA	
15. Supplementary Notes			
16. Abstract This Directory contains brief descriptions of Technical Assistance and Safety Projects initiated during Fiscal Year 1988 by the Office of Technical Assistance and Safety (UTS), Urban Mass Transportation Administration (UMTA) of the U. S. Department of Transportation. Its purpose is to inform the public and especially the transit industry of the nature and scope of work underway to assist State and local agencies in improving services and reducing the cost of public transportation. Under the Technical Assistance and Safety Program, assistance is provided in a broad range of disciplines, including Suburban Mobility Initiatives, Mobility Enhancement, Joint Development, Human Resources Management, Managerial Training Grants, University Research and Training, Rural Transportation, Rail Modernization, Transportation System Initiatives, Safety and Security, and University Transportation Centers.			
17. Key Words Technical assistance, transportation, research, safety, development, rural, mobility, management, training, rail, initiatives, security, universities, centers, suburban, development, joint		18. Distribution Statement Available to the public through the National Technical Information Service, Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 76	22. Price (NTIS) A05

1. Report No. UTS-40-88-1		2. Government Accession No.		3. Recipient's Catalog No. UMTRIS	
4. Title and Subtitle McTrans/TIME Software and Source Book.				5. Report Date June 1988	
				6. Performing Organization Code	
7. Author(s)				8. Performing Organization Report No.	
9. Performing Organization Name and Address Center for Microcomputers in Transportation (McTrans) University of Florida 512 Weil Hall Gainesville, Florida 32611 (904)392-0378				10. Grant or Project No.	
				11. Contract No.	
AND The Transit Industry Microcomputer Exchange (TIME) Support Center, Vanderbilt University PO Box 1563, Station B Nashville, Tennessee 37235 (615)343-4993				13. Type of Report and Period Covered Microcomputer Software and Source Book	
				14. Sponsoring Agency Code	
15. Supplementary Notes The Software and Source Book is available from either McTrans or the TIME Support Center, price \$25 plus postage and handling. It is no longer published by UMTA or the FHWA.					
16. Abstract Citing cutbacks in funding, UMTA and the FHWA ceased publication of the Microcomputer Software and Source Book (SS Book) following the 1987 edition. They endorsed an offer from McTrans Center at University of Florida, and the Transit Industry Microcomputer Exchange (TIME) Support Center at Vanderbilt University to jointly publish the SS Book. This is the first edition of the McTrans/TIME SS Book. It is published periodically for transportation professionals who use computer applications software. An accompanying disk, Software Source Finder (SS Finder) contains a program to help users identify software products of interest. This annual publication contains software descriptions and sources of information of interest to transportation planners, traffic engineers, highway engineers, and transit and paratransit operators. Information from previous US Department of Transportation editions has been updated and expanded in this publication. The SS Book contains software description in 8 major areas. Software developed by public and private agencies are listed. A special section identifies software sources and resources and electronic bulletin boards for downloading or for information about software in the transportation area. The information is the best available to McTrans and TIME Support Centers at time of publication. Please contact one of the following: For Sections I-III (transportation planning, traffic engineering, highway engineering), McTrans Center; For Section IV-VI (transit and paratransit planning and operations), the TIME Support Center. The SS Book is available in looseleaf format for \$25, plus shipping and handling, from either center.					
17. Key Words Microcomputers Planning Software and Source Book Transit Paratransit Operators Planners Traffic Engineering SS Finder Highway Engineers Network Directory Electronic Bulletin Boards			18. Distribution Statement Center for Microcomputers in Transportation (McTrans) or The Transit Industry Microcomputer Exchange (TIME) Support Centers.		
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified		21. No. of Pages 250	22. Price

1. Report No. UMTA-WA-11-0010-90-1		2. Government Accession No. (NTIS) PB 91-119191		3. Information System UMTRIS/Section 11	
4. Title and Subtitle Development of an Employer-based Ridesharing Information and Mapping System		5. Report Date September 1990		6. DOT Report Number	
		8. Performing Organization Report No.		10. Grant or Project No.	
7. Author(s) J.B. Schneider and Yihua Xiong		9. Performing Organization Name and Address Department of Civil Engineering (FX-10) University of Washington Seattle, WA 98195		11. Contract No. UMTA-WA-11-0010	
Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered Final Report October '88/October '90		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes			
16. Abstract New methods of supporting employer-based commuter assistance programs in suburban locations are investigated. All are designed to provide customized information and maps for employees to help them more clearly understand their work-trip ridesharing options. The purpose of providing this assistance is to encourage drive-alone employees who live near each other to try a ridesharing mode by removing or diminishing some of their misconceptions about their various ridesharing options. A proactive approach is outlined that can be used by any suburban employer (or group of employers). First, maps that show where employees live are prepared and clusters of employees who live near each other or along a direct route to the workplace are identified. Then, a meeting of these employees is held and those interested are provided with customized information and maps that describe their ridesharing options in some detail. A microcomputer program called the Ridesharing Information and Mapping System (RIMS) has been developed to help the employer's Transportation Coordinator generate these customized materials quickly and with minimal expense. The data and learning requirements of the program have been minimized to the extent possible. A <u>User's Guide</u> and a <u>Programmer's Guide</u> have been prepared to assist the learning and operation of the program. The program has been demonstrated to several employers in the Seattle region and their reactions to it catalogued. Several recommendations for extending and enriching this decentralized employer-based approach are identified.					
17. Key Words			18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650		
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified		21. No. of Pages	22. Price (NTIS) A05

1. Report No. UMTA-CA-11-0031-88-1	2. Government Accession No. (NTIS) PB 89-168223	3. Recipient's Catalog No. UMTRIS/UMTA Section 11	
4. Title and Subtitle Transit Service Contracting: Cream-Skimming or Deficit-Skimming?		5. Report Date December 1988	
		6. Performing Organization Code	
		8. Performing Organization Report No.	
7. Author(s) Robert Cervero		10. Work Unit No. (TRAIS) UMTA-CA-11-0031	
9. Performing Organization Name and Address Institute of Urban and Regional Development University of California, Berkeley Berkeley, California 94720		11. Contract or Grant No. CA-11-0031	
		13. Type of Report and Period Covered FINAL REPORT 7/1/87 - 12/31/88	
		14. Sponsoring Agency Code UTS-30	
12. Sponsoring Agency Name and Address University Research and Training Program Urban Mass Transportation Administration U.S. Department of Transportation		15. Supplementary Notes	
16. Abstract This report examines the extent to which there is any proof that transit service contracting results in "cream-skimming" – the transfer of profitable services from public to private operation. The analysis suggests that there is no credible basis to the cream-skimming argument. Using cost and revenue data for fixed-route bus services of 25 public transit agencies across the United States, it was found that fewer than one percent of fixed bus routes either make a profit or break even. A conservative approach to cost estimation was used, only measuring the direct, day-to-day operating costs and ignoring factors such as fixed facility depreciation, debt service, and administrative overhead. If these additional cost factors were considered, the share of profitable public bus routes would be even less. Thus, there appears to be very little "cream" to skim in the first place. The analysis also found that there is little evidence of scale economies in the transit industry, suggesting that load-shedding of peak demand would be tantamount to deficit-skimming. Finally, the research demonstrates that as practiced to date, public transit agencies engaged in competitive contracting remain the sponsors of all services. That is, they control all aspects of service design, scheduling and performance, and pricing. As long as they retain total policy oversight of contracts, there should be no occasion for services to somehow surreptitiously be "stolen" by private firms. In fact, the few occasions where private firms have taken over bus routes previously operated by public transit agencies have involved the transfer of the poorest performing routes in the agencies' fleets. In sum, there appears no credible basis for the cream-skimming claim.			
17. Key Words Cream-Skimming Scale Economies Cost Recovery Efficiency Load-Shedding Profitability		18. Distribution Statement This document is available to the U.S. public through the National Technical Information Service, Springfield, Virginia, 22161.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 126	22. Price A07

18. Public/Private Partnership

Technical Report Documentation Page

1. Report No. UMTA-CA-03-4510-89-1		2. Government Accession No. (NTIS) PB90-105545/AS		3. Information System UMTRIS/UMTA SECTION 3	
4. Title and Subtitle TMA Handbook: A Guide to Forming Transportation Management Organizations.				5. Report Date August 1989	
				6. DOT Report Number	
7. Author(s)				8. Performing Organization Report No.	
9. Performing Organization Name and Address Southern California Association of Governments* 818 West Seventh Street, 12th Floor Los Angeles, California 90010				10. Grant or Project No. UMTA-CA-03-4510	
				11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590				13. Type of Report and Period Covered Final Report Handbook	
				14. Sponsoring Agency Code UTS-10	
15. Supplementary Notes *And Commuter Transportation Services, Inc. 3550 Wilshire Boulevard, Suite 300 Los Angeles, California 90010					
16. Abstract This handbook is designed to provide information to assist groups that are considering forming or have begun the process of creating a Transportation Management Association (TMA). It clarifies the potential role of TMAs in addressing transportation and air quality issues, and enumerates the steps necessary to form an effective TMA. The handbook is organized into chapters on various aspects of TMA development. Each chapter contains some background information on each aspect (e.g., work plan, budget/funding, etc.), a synopsis of the experience of existing TMAs, and some tips to guide the formation of new TMAs. The handbook includes appendices which provide samples of useful documents such as survey forms, by-laws, and a budget worksheet.					
17. Key Words Handbook Guide Management Transportation Management Associations, TMA Work Plan Staffing Funding Transportation Demand Management UMTA Section 3 Privatization			18. Distribution Statement - Report Availability Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/ 87-4650		
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified		21. No. of Pages 64	22. Price (NTIS) A07

1. Report No. UMTA-DC-06-0123-89-1	2. Government Accession No. (NTIS) PB 89-207575	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle Private Sector Contracting for Transit Services: Operator Handbook.		5. Report Date March 1989	6. Performing Organization Code
7. Author(s)		8. Performing Organization Report No.	
9. Performing Organization Name and Address ATE Management & Service Company, Inc* 617 Vine Street, Suite 800 Cincinnati, Ohio 45202		10. Grant or Project No. UMTA-DC-06-0123	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Transit Operator's Handbook	
15. Supplementary Notes *Prepared for International Taxicab Association, and Urban Mass Transportation Administration (UMTA).		14. Sponsoring Agency Code UBP-30	
16. Abstract The thrust of this handbook is to address the procedural difficulties in the development of contractual relationships between private operators and public agencies. The handbook focuses primarily on transit programs funded by UMTA. It is designed for private operators, not public agencies, and consists of practical how-to-do-it information about contracting. The handbook is organized into 7 chapters. Chapter 2 discusses the market opportunities available through urban and rural transportation operators, cities and counties, human services agencies, schools, airports and other sources. The focus is on public sector contracting opportunities. Chapter 3 provides an overview of various funding sources, program trends and policies, and regulations of these programs which affect private sector participation. Funding programs in this chapter are divided into those administered by UMTA and those by other federal agencies. These 3 chapters provide an understanding of how to effectively participate in public transit programs. The last 4 chapters deal with the mechanics of how the contracting process works, and how an operator can increase his effectiveness in pursuing business contracts in transit. Chapters 4-7 are titled: Local Transportation Planning Process (MPO); Contracting Process; How to Win Contracts; and Contracts (types). The appendices in this report provide: A Sample Contract; Glossary; Excerpts from UMTA Regulations; UMTA Third Party Contracting Guidelines; Documentation of Private Enterprise Participation; Capital Cost of Contracting; UMTA Section 308 Lease Guidelines; and A Sample Request.			
17. Key Words Private Sector Contracting Public Sector Contracting Handbook Transit Operator Handbook Planning Federal Program Funding Policies Market Opportunities MPO Process Local Planning UMTA Programs		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 205	22. Price (NTIS) A10

18. Public/Private Partnerships

Technical Report Documentation Page

1. Report No. UMTA-DC-06-0579-88-1	2. Government Accession No. (NTIS) PB 90-120171/AS	3. Information System UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Use of Federal Assistance for Private Operator Capital Cost in UMTA's Entrepreneurial Services Challenge Grant Program.		5. Report Date March 1988	6. DOT Report Number
7. Author/s-		8. Performing Organization Report No.	
9. Performing Organization Name and Address Price Waterhouse* National Transportation Office 1801 K Street, NW Washington, DC 20006		10. Grant or Project No. UMTA-DC-06-0579	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered Policy	
15. Supplementary Notes * Steven Steckler, Manager--202/296-0800. Douglas Birnie, Director of UMTA's Office of Private Sector Initiatives--202/366-1666.		14. Sponsoring Agency Code UBP-30	
16. Abstract <p>Dynamic changes in travel patterns stepped-up the need for alternative transit service. The explosive growth of employment in the suburbs and the increasing number of city-to-suburb and inter-suburban trips have created 'new markets' that require more flexible and smaller-scale approaches than those provided by large centralized transit systems. UMTA has developed a program to respond to these 'new market' needs--The Entrepreneurial Services Challenge Grant Program (ESCGP). It features start-up capital costs support to entrepreneurs and supports the cost of a provider's own equipment purchase or lease (instead of UMTA buying vehicles and leasing or donating them to a provider). The idea behind ESCGP program is to help start new private transit services that can eventually operate without public subsidy. The program is directed toward two groups: equipment lessors and the entrepreneurial transit service providers. This report presents the ESCGP program in detail and illustrates its application through case studies. Section 1 of this report introduces the program and the profitable opportunities for private transit providers. Section 2 details the program options; Section 3 presents a business plan and service agreement for ESP-type of transit service; and Section 4 discusses federal regulatory issues. The fifth and final section of this report presents case studies of transit systems currently operating services similar to ESP program candidates. The National Transportation Office of Price Waterhouse is acting as UMTA's financial advisor and program coordinator for the ESP vehicle leasing and capital subsidy program. For more information, contact Price Waterhouse or UMTA's Office of Private Sector Initiatives.</p>			
17. Key Words Private Sector Initiative Entrepreneurial Services Challenge Grant Program Suburban Mobility ESP Vehicle Leasing Lessors Capital Subsidy Program Policy Federal Assistance Case Studies		18. Distribution Statement - Report Availability Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
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18. Public/Private Partnership

Technical Report Documentation Page

1. Report No. UMTA-KY-06-0004-89-1		2. Government Accession No. NON-NTIS REPORT		3. Information System UMTRIS/UMTA SECTION 6	
4. Title and Subtitle State Policies in Transit: Public and Private. Statistical Compendium.				5. Report Date April 1989	
				6. DOT Report Number	
7. Author/s RA Krause, K Sebesta, MC ShelleyII				8. Performing Organization Report No. C-139	
9. Performing Organization Name and Address The Council of State Governments Iron Works Pike, PO Box 11910 Lexington, Kentucky 40578-9989				10. Grant or Project No. UMTA-KY-06-0004	
				11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590				13. Type of Report and Period Covered State Leadership Survey Statistical Compendium	
				14. Sponsoring Agency Code UBP-30	
15. Supplementary Notes This Statistical Compendium and the Final Report are available from the Council of State Governments, telephone 606/231-1939. See block 9 above for full address.					
16. Abstract <p>The Council of State Governments conducted a survey of chairs of transportation committees and ranking minority members within state legislatures to determine their perceptions of the current level and value of private sector involvement in public transit. The goal was to create a profile of leadership thought on private sector involvement within public transit that will provide informational support to policymakers on this issue. All chairs of transportation in all 50 state legislatures were interviewed. A total of 107 questionnaires were mailed to chairs, and 88 to ranking minority members. Twenty-eight responses were received. Statistical tests were run to rank and group responses. The mailed survey consisted of 9 questions and the subject matter addressed ranged from rating public service areas as funding priorities and increasing taxes to cover public transit costs, to rating the role of private sector involvement and rating the adequacy of state funding and local public service programs. Results of the survey were compiled and ranked for the merged sample, for chairs, and for ranking minority members. After the survey results were compiled and ranked, a complete Pearson Correlation Coefficient Analysis was conducted. This analysis should provide the federal policymaker with information relevant to the implementation of technical assistance to the states. Appendix A of this report contains the survey document mailed to the full committee chair and the ranking minority member of each state's legislative committee having jurisdiction over public transit matters.</p>					
17. Key Words Private Sector Involvement State Leadership Survey Statistics Perceptions Local Policy Options State Policies Assessment Federal Policymakers Technical Assistance			18. Distribution Statement - Report Availability Interlibrary loan arrangement with transportation libraries at Northwestern University, Evanston, IL 60201; and University of California, Berkeley, CA 94720.		
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified		21. No. of Pages 176	22. Price \$15 each

18. Privatization

Technical Report Documentation Page

1. Report No. UMTA-MI-11-0010-90-1		2. Government Accession No. (NTIS) PB 90-222639		3. Information System UMTRIS/UMTA Section 11	
4. Title and Subtitle Privatization of Transit Services Between Suburban Communities in the Detroit Metropolitan Area: A Marketing Approach.				5. Report Date May 1990	
				6. DOT Report Number	
7. Author's S. Khasnabis and B.B. Chaudhry				8. Performing Organization Report No.	
9. Performing Organization Name and Address Wayne State University Department of Civil Engineering and Center for Urban Studies Detroit, Michigan 48202				10. Grant or Project No. UMTA-MI-11-0010	
				11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590				13. Type of Report and Period Covered University Research Final Report	
				14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes					
16. Abstract <p>Widely dispersed travel patterns in metropolitan centers and increasing operating expenses along with serious financial problems to public transportation agencies generated this research study. The purpose of this study was to develop a procedure for testing the feasibility of privatizing transit services between suburban centers in large metropolitan cities. The Detroit metro area was selected as a case study site for this proposed methodology since it was representative of the changing urban structures and dispersed travel patterns that typify major metropolitan areas in the U.S. today. Schematically, this research approach consists of 4 major elements: Market identification; Assessing the degree of interest among providers; Matching markets with providers; and Development of operating plans. A methodology incorporating these elements was developed, documented in this report, and applied to the Detroit suburban area, focusing mainly on travel demands between suburban communities in the 3-county Detroit metropolitan area. The research analysis resulted in a total of 53 candidate markets and then scaled down to 14 potential markets by two independent priority ranking procedures. Matching of provider interest with merged multiple markets resulted in the identification of 5 viable sectors where privatizing transit services appeared feasible. This report provides a list of references, Private Provider Survey form, and numerous charts ranging from revenues and operating expenses, to worktrips, ridership and population, and to service ranking, growth factor data, farebox revenue data and other market items.</p>					
17. Key Words Privatization Transit Service Travel Demand Management UMTA Section 11 Suburban Commuting Market-Provider Matching Case Studies/Urban/Rural/Suburban Regional Planning Operating Plan Market Identification/Capture Ridership				18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified		21. No. of Pages 192	22. Price (NTIS) A09

18. Public/Private Partnerships

Technical Report Documentation Page

1. Report No. UMTA-NY-06-0138-88-1		2. Government Accession No. (NTIS) PB 90-106477/AS		3. Information System UMTRIS/UMTA Section 6	
4. Title and Subtitle Running Public Transit in New York City Like a Business.				5. Report Date November 1988	
				6. DOT Report Number	
7. Author's J. Parker, M.R. Miller, and E.S. Savas				8. Performing Organization Report No.	
9. Performing Organization Name and Address City University of New York Institute for Transportation Systems The City College New York, New York 10031				10. Grant or Project No. UMTA-NY-06-0138	
				11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590				13. Type of Report and Period Covered Final Report Case Studies	
				14. Sponsoring Agency Code UBP-30	
15. Supplementary Notes					
16. Abstract <p>This report reflects the view that competing in the marketplace, reducing unit cost rather than service, and letting management and labor develop a consensus are the essential ingredients to running public transit in New York City like a business. Transit in NYC is a big business that influences other businesses. The Metropolitan Transportation Authority's (MTA) capital program underwrites 15,000 jobs annually and has become the largest, non-federal public works program in the country. This study explores opportunities to establish and expand partnerships with private enterprise in New York's transit business. It examines trends suggesting the basis for partnerships with private enterprise in producing and delivering transit services. The report presents and reviews 6 case studies for new partnerships with business--CSX Corporation, ConRail, NJ Transit, AMTRAK, TA's railcar overhaul program and MTA's real estate program. By examining these examples of successful business strategies, a number of general findings are offered along with specific proposals for station improvements and automatic fare collection. Tables and charts summarize areas and opportunities for business and government to form new partnerships that will improve transit service and reduce its costs in New York City. To move forward, the study states that institutional barriers will have to be overcome, and that promoting competition at every stage in the process of delivering transit services is a management tool to raise efficiency and even generate new revenues.</p>					
17. Key Words Opportunities Transit's Role Case Studies New York City Transit Business Partnerships Public Transit Public/Private Partnerships Competitor Privatization Review Real Estate Development Improvements			18. Distribution Statement - Report Availability Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650		
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified		21. No. of Pages 255	22. Price (NTIS) All

18. Privatization/Competitive Contracting

Technical Report Documentation Page

1. Report No. UMTA-DC-06-0570-88-1	2. Government Accession No. (NTIS) PB 90-107699/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 6	
4. Title and Subtitle Designing Public Transit Competitive Contracting Programs: The Public Perspective.		5. Report Date December 1988	
		6. Performing Organization Code	
7. Author(s) Wendell Cox and Jean Love		8. Performing Organization Report No.	
9. Performing Organization Name and Address American Bus Association 1025 Connecticut Avenue, NW, Suite 308 Washington, DC 20036		10. Grant or Project No. UMTA-DC-06-0570	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code UBP-30	
15. Supplementary Notes			
16. Abstract <p>Competitive contracting is a cost-effective service used for the delivery of public transit services by public agencies. This report states that the success of competitive contracting rests on 2 crucial issues: full public control and cost-effective services. The purpose of this research is to review cases in competitive contracting design and to make recommendations for practices favorable to public agencies competitively contracting public transit services. In-depth interviews were conducted with administrators of these programs as well as detailed analyses of actual contracts in each of the cases. More mature programs were surveyed to capture the long term lessons and to assess the attitudes of the more experienced contract administrators. Contracts surveyed in this study covered all major classifications of public transit services--fixed-route and demand responsive. Detailed contract analyses and interviews were conducted with the following services: San Diego County, Milwaukee County, Suffolk County (New York), Hammond (Indiana), Ann Arbor (Michigan), Johnson County (Kansas), Yolo County (California), Miami (Florida), Carson (California), Chicago Transit Authority (CTA), and Fort Wayne (Indiana). In each of the cases, private companies provided service operations including maintenance and use of their own vehicles. This research examines and discusses competitive contracting and the public purpose as well as the following areas related to competitive contracting: Procurement Process, Service and Contract Design, Monitoring Contracted Services, Assessment of Competitive Contracting Experiences, and Principles of Successful Contracting Design.</p>			
17. Key Words Competitive Contracting Public Transit Services Case Study Cost-Effective Services Survey Private Operators Public Purpose Procurement Contract Design Review Contracted Services Principles		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 38	22. Price (NTIS) A03

18. Privatization

Technical Report Documentation Page

1. Report No. UMTA-TN-11-0008-89-1	2. Government Accession No. (NTIS) PB 90-130170/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 11	
4. Title and Subtitle Development of a Public Service Providing Strategy: Agency Provided VS Privatization; Single Provider VS Strategic Network.		5. Report Date September 1989	
		6. Performing Organization Code	
7. Author(s) F.W. Davis, Jr., W.D. Smith, Jr., B. Hewa, and D. Donahue		8. Performing Organization Report No.	
9. Performing Organization Name and Address The University of Tennessee Department of Marketing, Logistics and Transportation. Knoxville, Tennessee 37996-0530		10. Grant or Project No. UMTA-TN-11-0008	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered University Research Final Report	
		14. Sponsoring Agency Code UTS-30	
15. Supplementary Notes			
16. Abstract This document was designed to assist policymakers interested in making transit service delivery more cost-effective. It focuses on successful privatization in public transit service that is based on a clear understanding of the economics of the contracting marketplace and the evolving field of strategic network management. In this report, problems facing transit agencies result not from privatization, but from the way privatization is implemented. This research addresses not only the question of whether transit services should be provided in-house, by an agency or contractor, but also the conditions under which strategic networks should be developed. The purpose of this study was to describe the steps required for successful privatization, identify the options, and present principles that determine the use of each option. Basically, this report identifies procurement procedures, principles and conditions necessary for successful privatization. The report is organized into 8 chapters and an appendix. Chapters 1-2 thoroughly examine the meaning of privatization and discuss problems associated with contracting. Defining a need before procuring a service is the focus of Chapter 3. Chapter 4 describes the 8 approaches to selecting a provider (defined by Federal Acquisition Regulations) Chapter 5 discusses ways to control contracting risks, and Chapter 6 describes the role of the service delivery manager. Chapter 7 presents flowcharts to guide the development of a procurement strategy. Chapter 8 is a case study of Huntsville, Alabama--largest city in the U.S. without a traditional transit system. Knox County School Bus Operators Handbook shows how one county manages its network of private school bus contractors (Appendix).			
17. Key Words Successful Privatization Contracting-Out Economics Service Strategic Network Management Brokerage Procurement Risk Management Service Delivery Private Operators Case Study Policy Cost-Effective		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 163	22. Price (NTIS) A08

18. Privatization

1. Report No. UMTA-TX-08-0253-88-1		2. Government Accession No. (NTIS) PB 89-231427		3. Information System UMTRIS/UMTA Section 8	
4. Title and Subtitle Dallas Area Rapid Transit Service Privatization: A Summary of Benefits/Risks for Transit Providers.				5. Report Date August 1988	
				6. DOT Report Number	
7. Author(s) Bette A. Webster				8. Performing Organization Report No.	
9. Performing Organization Name and Address North Central Texas Council of Governments PO Drawer COG, Regional Data Center Arlington, Texas 76005-5888				10. Grant or Project No. UMTA-TX-08-0253	
				11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590				13. Type of Report and Period Covered Case Studies Planning Studies 1970s - 1988	
				14. Sponsoring Agency Code UMTA Region 6	
15. Supplementary Notes Copies of this report are also available from the North Central Texas COG, telephone 817/640-3300 (see block no. 9 above for address).					
16. Abstract <p>Dallas Area Rapid Transit (DART) is a national leader in the field of transit privatization (\$59.5M privatization budget for FY88). The purpose of this study was to document the privatization efforts of DART for UMTA. This case study documents the socioeconomic, political, financial, technical and user characteristics that influenced transit privatization in the Dallas area from the 1970s through 1988. The results will allow other transit providers the opportunity to understand the benefits and potential risks of contracting for services from the private sector. This report consists of the following 6 sections: Historical Background; Suburban Express Bus Service Contracting; Suburban Fixed-Route Bus Service Contracting; Demand-Responsive Service Contracting; Transit Marketing Effects on Privatization Revenue; and DART Contract Procurement. The appendix in this report charts out the DART Service Area, Service and Budget Characteristics, Comparisons of Contract Bids with System Costs, as well as DART Private Sector Contracting Activity (1987-1988). DART's leading role in privatizing transit operations has occurred primarily through expansion of new transit service to the surrounding suburban communities. Currently, DART's largest expenditures occur in private consulting contracts for rail planning and bus transit planning. In the future, DART expects more privatization and joint venture activity as the multimodal transit system progresses.</p>					
17. Key Words DART Privatization Strategies Contracting Services Benefits Risks Planning Suburban Regional Transit Express Bus Demand-Responsive Bus Socioeconomic Characteristics Contract Procurement Private Sector				18. Distribution Statement - Report Availability Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified		21. No. of Pages 55	22. Price (NTIS) A04

1. Report No. UMTA-TX-08-8013-88-1	2. Government Accession No. (NTIS) PB 89-161707/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 8	
4. Title and Subtitle Turnkey Park & Ride Facility Investigation.		5. Report Date June 1987	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) B. Goodman, C. Peck, J. Carrara, R. Schwartz		9. Performing Organization Name and Address The Goodman Corporation 1600 Smith Street, Suite 4450 Houston, Texas 77002	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		10. Grant or Project No. UMTA-TX-08-8013	11. Contract No.
		13. Type of Report and Period Covered Final Report Planning	
15. Supplementary Notes		14. Sponsoring Agency Code UMTA Region 2	
16. Abstract <p>Between 1980-1985 the Metropolitan Transit Authority of Harris County (Houston METRO) pioneered an approach to capital improvement development called turnkey. By placing responsibility for construction improvements and other tasks in the hands of turnkey contractors, METRO was able to save substantial public dollars, significantly involve the private sector, and achieve implementation of Houston's extensive and successful park-and-ride network in the shortest time possible. The purpose of this research was to investigate the turnkey contracting method employed by Houston METRO and other agencies and determine its benefits. The study examines the turnkey method of contracting through examples, issues and discussions of future potential. It reviews the method by which ten METRO park-and-ride facilities were developed as well as the time and monetary benefits achieved. The turnkey method used to develop the Bay Area Park-and-Ride facility is discussed in detail. The turnkey method of procurement, policies, and practices at state and federal levels is examined as well as future turnkey contracting for park-and-ride development on a national basis. Turnkey contracting has proved to be a cost-effective and time saving approach to capital facility development for the private sector and for non-federally funded projects. To be of value to transit agencies, turnkey contracting calls for federal (UMTA) guidelines that are comprehensive and sensitive to the contractor's freedom.</p>			
17. Key Words Houston METRO Turnkey Contracting Case Studies Funding Capital Development Park-and-Ride Facility Planning Evaluation Nationwide Application UMTA Section 8 Regional Transit		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 113	22. Price (NTIS) A06

1. Report No. UMTA-UBP-30-87-3	2. Government Accession No.(NTIS) PB 88-237367	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 6	
4. Title and Subtitle Private Sector Contracting for Transit Services: Operator Handbook.		5. Report Date October 1987	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s)		10. Work Unit No. (TRAIS) UBP-30	
9. Performing Organization Name and Address ATE Management & Service Company, Inc.* 617 Vine Street - Suite 800 Cincinnati, Ohio 45202		11. Contract or Grant No.	
		13. Type of Report and Period Covered Handbook	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UBP-30	
		15. Supplementary Notes *Prepared for International Taxicab Association, and the Urban Mass Transportation Administration (UMTA).	
16. Abstract Changing federal policies have encouraged communities to look beyond the impediments to contracting and to consider the benefits of contracting with private operators for portions of their transit services. This handbook addresses the procedural difficulties involved in the development of contractual relationships between private operators and public agencies. It focuses on transit programs (funded by UMTA) and practical how-to-do-it information about service contracting. The handbook is a valuable resource for private operators opting to improve the effectiveness of their contracting efforts with local governments. It is organized into seven chapters. Chapters 2, 3 and 4 provide background information on new market opportunities, funding programs, and the local transportation planning process. These chapters are necessary for understanding how to effectively participate in public transit programs. The last four chapters deal with the contracting process, how to win contracts, and contracts (types, requirements, problem areas). The appendices provide a sample contract, glossary, excerpts from UMTA Regulations and Third Party Guidelines, documentation of Private Enterprise Participation, and capital cost of contracting.			
17. Key Words Public/Private Partnership Competitive Contracting Policy Operator Handbook Transit Services Funding Sources Market Realities Contracting Process Opportunities		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 175	22. Price A09

SECTION 2

UMTA SECTION 8/9 TECHNICAL STUDY REPORTS

REPORT AVAILABILITY

Loan copies of Section 2 reports have been deposited with the UMTA Regional Centers and are available to the public through an interlibrary loan arrangement with the following libraries:

1. Department of Transportation Library
400 7th Street, S.W.
Washington, D.C. 20590
Telephone: (202) 366-2565

2. Transportation Library
Northwestern University Library
Evanston, Illinois 60208-2300
Telephone: (708) 491-5273

3. Institute of Transportation Studies Library
325 Administration Building
University of California-Berkeley
Berkeley, California 94720
Telephone: (415) 642-3604

SECTION 8 REPORTS

01. Conventional Transportation Services

Technical Report Documentation Page

1. Report No. UMTA-TX-08-8014-89-2	2. Government Accession No. (NTIS) PB 90-197609/AS	3. Information System UMTRIS/UMTA SECTION 8	
4. Title and Subtitle The Cost and Benefits of Urban Public Transit in Texas.		5. Report Date November 1989	6. DOT Report Number
		8. Performing Organization Report No. Research Report 2003-1F	
7. Author/s T.J. Lomax and J.L. Memmott		10. Grant or Project No. Study 2-10-89-2003	
9. Performing Organization Name and Address The Texas A&M University System Texas Transportation Institute College Station, Texas 77843-3135		11. Contract No.	
		13. Type of Report and Period Covered Planning Interim Report July 1987 - January 1990	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code URO-6	
		13. Supplementary Notes Related reports: Land Use Impacts of the Houston Transitway System, UMTA-TX-08-8014-89-1, Oct. 1989; and Planning and Policy Issues Associated with Developing Mass Transportation Improvements in Urban Freeway Corridors, UMTA-TX-08-8013-88-3, Aug. 1988.	
16. Abstract <p>This study affirms that urban public transit systems in Texas provide an alternative to the private automobile in 18 urban areas and generate significant benefits to the users, communities served and the Texas economy. The purpose of this study was to examine the role of urban public transit systems in Texas and associated cost and benefits of transit operations. This report summarizes and documents data collected from federal, state, and local planning and transit agencies--transit operations, ridership characteristics, transit and automobile trip patterns, and impact of transit on urban congestion levels--and describes transit's role in each system along with resulting costs and benefits. Six of the 18 systems examined were large transit systems serving areas of more than 500,000 population--Austin, Dallas, El Paso, Fort Worth, Houston and San Antonio. The other 12 systems assessed were smaller systems with ridership less than 10,000 trips in 1986--Abilene, Amarillo, Beaumont, Brownsville, Corpus Christi, Galveston, Laredo, Lubbock, Port Arthur, San Angelo, Waco and Wichita Falls. Benefits of Texas transit systems were estimated for the 6 largest urban areas for 1987 and 1992 in terms of reduced congestion, costs, accidents and fuel consumption. Using an input/output model, the benefits of expenditures for all 18 transit systems were estimated in terms of increased income and employment. The appendices in this report provide transit system operating statistics, roadway and transit travel, and HPMS output for calculating motorist benefits of transit. The data in this report can be used by transit agencies in Texas to compare operations, service, ridership characteristics, mode share and impact of transit on roadway operation.</p>			
17. Key Words Costs and Benefits Planning Texas Urban Public Transit Systems Ridership Travel/Trip patterns Regional Transit Transit's Role Congestion Economic Impacts Mode Share		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 69	22. Price (NTIS) A04

02. Traffic Mitigation

Technical Report Documentation Page

1. Report No UMTA-DC-08-9087-89-1	2. Government Accession No. (NTIS) PB 90-164344/AS	3. Information System UMTRIS/UMTA Section 8	
4. Title and Subtitle Status of Traffic Mitigation Ordinances. Volume 1. Final Report.		5. Report Date August 1989	6. DOT Report Number
		8. Performing Organization Report No.	
7. Author(s)		10. Grant or Project No. UMTA-DC-08-9087	
9. Performing Organization Name and Address Peat Marwick Main & Co.* 8150 Leesburg Pike, Suite 800 Vienna, Virginia 22182		11. Contract No.	
		13. Type of Report and Period Covered Vol. 1 of 2 Vols. Final/Status Report	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code UTS-10	
		15. Supplementary Notes *In association with RL Oram Associates.	
16. Abstract <p>Transportation demand management (TDM), also referred to as transportation system management (TSM) or traffic mitigation ordinances have emerged as a compelling new strategy for reducing automobile congestion related to commuting. This final report discusses the emergence and status of traffic mitigation ordinances as a strategy for reducing automobile congestion vis-a-vis commuting. It is based on a review of traffic mitigation ordinances drafted or adopted in 20 selected local jurisdictions throughout the United States as of December 1988. This 2-volume report is a good resource for local governments and will assist local jurisdictions in developing a traffic mitigation ordinance that addresses traffic congestion problems. The final report on the Status of Traffic Mitigation Ordinances consists of 2 separate volumes. Volume 1 presents and discusses some of the major components of traffic mitigation ordinances and important issues in the development and application of ordinances as a means of reducing traffic congestion. Volume 1 also documents the summaries of the 20 traffic mitigation ordinances (case studies) reviewed during this research study. Volume 2, Appendix, documents copies of the actual ordinances discussed in Volume 1 of this study. In this report, traffic mitigation ordinances are viewed as one method that may have merit as part of a broad-based transportation and land use strategy including transportation system development, transportation system management, growth management policies, zoning and other TDM approaches.</p>			
17. Key Words Traffic Congestion Commuting Traffic Mitigation Ordinances Traffic Demand Management Planning Regional Approach Status Land Use TSM Strategies Growth Management Case Studies Suburban Mobility		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 149	22. Price (NTIS) A07

02. Traffic Mitigation

Technical Report Documentation Page

1. Report No. UMTA-DC-08-9087-89-2		2. Government Accession No. (NTIS) PB 90-164351/AS		3. Information System UMTRIS/UMTA Section 8	
4. Title and Subtitle Status of Traffic Mitigation Ordinances. Volume 2. Appendix.				5. Report Date August 1989	
				6. DOT Report Number	
7. Author(s)				8. Performing Organization Report No.	
9. Performing Organization Name and Address Peat Marwick Main & Co.* 8150 Leesburg Pike, Suite 800 Vienna, Virginia 22182				10. Grant or Project No. UMTA-DC-08-9087	
				11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590				13. Type of Report and Period Covered Vol. 2 of 2 Vols. Status/Case Studies	
				14. Sponsoring Agency Code UTS-10	
15. Supplementary Notes *In association with RL Oram Associates.					
16. Abstract <p>Transportation demand management (TDM) ordinances, also called transportation system management (TSM) or traffic mitigation ordinances (TMO) have emerged as a new strategy for reducing automobile congestion related to commuting. The emergence of the TDM ordinance is rooted in a range of transportation policies and activities--ranging from TSM strategies (management-oriented), to Brokerage (market-based transit organizations) to transportation management associations (corporate involvement). TDM ordinances may apply to employers, developers and property owners, office/industrial complexes, retail and residential developments. This final report presents and discusses the emergence and status of traffic mitigation ordinances as a way of reducing automobile traffic congestion vis-a-vis commuting. It is based on a review of TMOs drafted or adopted in 20 selected local jurisdictions throughout the U.S. as of December 1988. This final report consists of 2 separate volumes. Volume 1 discusses some of the major components of TMOs and the important issues in the development and application of ordinances as a means of reducing traffic congestion. In addition, Volume 1 documents summaries of the 20 TMOs (case studies) reviewed during this study. Volume 2, Appendix, documents copies of the actual ordinances discussed in Volume 1. In this report, traffic mitigation ordinances are viewed as one method that may have merit as part of a larger transportation and land use strategy that includes transportation system development, TSM, growth management policies, zoning, and other TDM approaches.</p>					
17. Key Words Traffic Congestion Commuting Traffic Mitigation Ordinances Planning Traffic Demand Management Land Use Growth Management Suburban Mobility Regional Approach Case Studies Local Governments Status			18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650		
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified		21. No. of Pages 364	22. Price (NTIS) A16

1. Report No. UMTA-IL-08-0081-90-1	2. Government Accession No. (NTIS) PB 91-132019	3. Information System UMTRIS/Section 8	
4. Title and Subtitle Access to jobs: Reverse commuting from city to suburbs		5. Report Date October 1990	6. DOT Report Number
7. Author/s- Richard Hazlett		8. Performing Organization Report No.	
9. Performing Organization Name and Address Chicago Department of Public Works 320 N. Clark Street, Room 411 Chicago, IL 60610		10. Grant or Project No. IL-08-0081	11. Contract No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered	
15. Supplementary Notes		14. Sponsoring Agency Code	
16. Abstract The 13.1% of Chicagoans who are unemployed could fill positions in suburban Cook County and in Lake and DuPage Counties if transportation were available. This report focuses on some of the problems associated with getting residents from the Near South and West Side areas, where unemployment levels are high, to five suburban areas where nearly 20,000 Near South and West Side residents already commute. Major findings concerning these city-to-suburb commutes include: Over 43% of the households in the study area have no auto, over twice the regional rate. Waits for connections and walks from bus stops extend travel times by transit to 28 to 107 minutes, compared with 22 to 53 minutes by car. Carpools account for 30% of commutes (almost twice the city rate), but are considered unreliable by employers. City transit and suburban buses have fare parity which make this commute feasible and economical, but time consuming; service and fare changes are needed to make commuter rail service an alternative. Job counselors, unfamiliar with suburban transit services, can not tell job seekers how use those services to get to work sites. Providing city workers with efficient access to suburban employment is a regional problem that will require a coordinated regional solution. Scheduling to shorten waiting time, improved service to employment sites, integrated regional fare structures, and development of information about city-to suburb commuting are among possibilities that should be considered.			
17. Key Words Reverse commuting, employment access, suburban employment centers		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 41	22. Price (NTIS)

1. Report No. UMTA-TX-08-8013-88-4	2. Government Accession No. (NTIS) PB 89-218390	3. Recipient's Catalog No. UMTRIS/UMTA Section 8	
4. Title and Subtitle Planning Guidelines for Suburban Transit Services.		5. Report Date August 1988	6. Performing Organization Code Technical Report 2001-1F
		8. Performing Organization Report No.	
7. Author(s) Earl J. Washington and Robert W. Stokes		10. Grant or Project No. UMTA-TX-08-8013	
9. Performing Organization Name and Address The Texas A&M University System Texas Transportation Institute College Station, Texas 77843-3135		11. Contract No.	
		13. Type of Report and Period Covered Planning Studies Guidelines	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UMTA Region 6	
		15. Supplementary Notes Technical study title: Public Transportation Services for Suburban Development Patterns.	
16. Abstract Major activity centers located outside the traditional CBD of American cities have become the principal areas of urban growth in recent years. This evolving land use pattern has resulted in highly dispersed travel patterns that are difficult to serve by conventional public transportation. This report presents a set of general guidelines to assist transit service planners in planning, designing, and implementing route and service changes to capture a larger share of the regional travel market. The objectives of this research were to develop guidelines for: estimating non-CBD oriented travel demands; identifying potential route design and service planning options to meet non-CBD oriented travel demands; and assessing the relative effectiveness of these service alternatives. The report describes several procedures that can be used to identify suburban travel characteristics (origin-destination surveys, journey-to-work data, onboard surveys and others); outlines and reviews alternative routing alignments that may be appropriate for suburban travel patterns (radial network, ubiquitous network, grid network, and timed transfer systems); and discusses evaluation techniques that measure the effectiveness and efficiency of these service alternatives, namely transit performance indicators. In addition, the report presents a specific set of guidelines for implementing suburban transit services, namely, four general steps: Identifying Suburban Travel Patterns; Identifying Alternative Routing Structures; Route Planning Guidelines; and Monitoring and Evaluating Services. This report provides recommendations for selecting the appropriate performance indicators and a list of references.			
17. Key Words Suburban Transit Services Planning Guidelines Activity Centers Route Planning Service Planning Transit Performance Indicators Non-CBD Travel Suburban Travel Patterns Suburban Development UMTA Section 8		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 105	22. Price (NTIS) A05

1. Report No. UMTA-TX-08-8013-88-2	2. Government Accession No. (NTIS) PB 89-161715/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Evaluation of Employer Distributed Transit Pass Programs in Texas.		5. Report Date February 1988	
		6. Performing Organization Code	
7. Author(s)		8. Performing Organization Report No. Technical Report No. 1084-1F	
9. Performing Organization Name and Address The Texas A&M University System Texas Transportation Institute College Station, Texas 77843-3135		10. Grant or Project No. UMTA-TX-08-8013	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Planning Study Final Report	
		14. Sponsoring Agency Code UMTA Region 2	
15. Supplementary Notes			
16. Abstract <p>This report reflects the view that the concept of selling and distributing transit passes through employers is an idea whose time has come. The transit agencies studied perceive these programs to be worthwhile investments for encouraging transit acceptance and use while lowering employee commuting costs and reducing the need for activity center parking. This study was undertaken to evaluate the types of employer distributed transit pass programs currently in operation in major Texas cities and selected cities outside Texas. The information presented in this report will assist transit agencies and employers in implementing new (or improving existing) employer distributed transit pass programs. This report presents the results of a detailed analysis of the types of employer distributed transit pass programs implemented by transit agencies in 5 Texas cities--Dallas, Houston, Fort Worth, San Antonio, and Austin. Project information includes the experience of operating such programs in Seattle and Denver, published materials including the demonstration results of projects implemented in Sacramento, CA, Jacksonville, FL, and Duluth, MN. The basic intent of this investigation was to: identify the types of programs in operation; determine the impacts of programs on transit agencies, employers and employees; and document the findings in order to assist transit agencies and employers in implementing employer distributed transit pass programs.</p>			
17. Key Words UMTA Section 8 Planning Employer Distributed Transit Pass Employer Subsidized Program Fare Prepayment Evaluation Case Study Survey Impacts Texas Regional Transit		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 194	22. Price (NTIS) A08

05. Financing

1. Report No. UMTA-MA-08-9018-89-1	2. Government Accession No. (NTIS) PB 90-219270	3. Recipient's Catalog No. UMTRIS/UMTA Section 8	
4. Title and Subtitle Financial Planning Guide for Transit		5. Report Date April 1989	
		6. Performing Organization Code	
7. Author(s) D. Fleishman, M. Connors, J. Pearson, G. White		8. Performing Organization Report No.	
9. Performing Organization Name and Address Multisystems, Inc. 1050 Massachusetts Avenue Cambridge, MA 02138 *		10. Grant or Project No. UMTA-MA-08-9018	
		11. Contract No. DTUM60-84-C-71260	
		13. Type of Report and Period Covered Final Report Financial Planning Guide	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code URT-41	
15. Supplementary Notes * performed in conjunction with: Morgan Stanley & Co. Price Waterhouse Public Financial Management, Inc. 1251 Avenue of Americas 1801 K Street NW 2000 Walnut Street New York, NY 10020 Washington, DC 29996 Philadelphia, PA 19103			
16. Abstract <p>The <u>Financial Planning Guide for Transit</u> presents the details of the overall financial planning process and the procedures that make up the process. The Guide is designed to aid public agencies and interested private parties in the preparation of comprehensive and realistic financial plans -- for new capital investments, recapitalization efforts, and the ongoing operation of existing services. The major elements of the Guide are:</p> <ul style="list-style-type: none"> ● definition of the financial planning process, including the relationship between financial analysis and other planning functions, procedures for identifying sources of revenue, administrative/institutional arrangements and responsibilities in transit financing, and the types of information needed at each planning level; ● identification of how cost and revenue projections are developed for financial planning purposes, including identification of financial forecasting techniques, selection and projection of new sources of revenue, and performance of sensitivity analyses, and ● description of the development and implementation of a financial plan, including discussion of market financing mechanisms and requirements, how dedicated revenue sources and market financing programs are developed, the development of financing packages, and performance of financial capability analysis. <p>The Guide has been designed to be useful both in meeting UMTA's planning and reporting requirements (e.g., in demonstrating financial capacity) and in guiding local agencies in evaluating and addressing their own financing needs either in providing the "local match" to Federal funds or in developing sufficient financing to proceed without Federal funds, if such an approach is considered feasible.</p>			
17. Key Words Financial planning, financial capacity analysis, cash flow analysis, revenue forecasting, cost estimation		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161 - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 215	22. Price (NTIS) A10

1. Report No. UMTA-NY-08-0150-90-1	2. Government Accession No. NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Development of Demand Responsive Paratransit Services		5. Report Date March 1990	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) Comsis Corporation		10. Work Unit No.	
9. Performing Organization Name and Address 2275 Swallow Hill Road Pittsburgh, Pa. 05220		11. Contract or Grant No. NY-08-0150	
		13. Type of Report and Period Covered Final Report - March 1990	
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration U.S. Department of Transportation Washington, D.C. 20590		14. Sponsoring Agency Code URO-2 Larry Penner	
		15. Supplementary Notes . See block no. 18 below for report availability information.	
16. Abstract <p>The Town of Huntington, in Suffolk County, New York, has engaged COMSIS Corporation to conduct a study entitled: Development of Demand Responsive Paratransit Services. The primary objective of the study was to develop a plan for improving public transportation services within the Town of Huntington. The focus was on alleviating existing service deficiencies in the most cost-effective manner through use of integrated demand-responsive services, coordinated with the Town's fixed-route bus service known as Huntington Area Rapid Transit (MART). Service to those citizens who are not able to make use of existing fixed-route bus service was a main thrust of the study. Additionally, the use of private enterprise for operation of the demand-responsive service was to be analyzed.</p>			
17. Key Words Public Transportation Paratransit Private Enterprise		18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, IL 60201; and University of California-Berkeley.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 57	22. Price

1. Report No. UMTA-NY-08-0154-90-2	2. Government Accession No. (NTIS) PB-91-121079	3. Information System UMTRIS/UMTA Section 8	
4. Title and Subtitle Scheduling Review of the Westchester County Bee-Line		5. Report Date May 1990	
		6. DOT Report Number	
7. Author's ATE Management and Service Company, Inc.		8. Performing Organization Report No.	
9. Performing Organization Name and Address 610 Vine Street, Suite 800 Cincinnati, Ohio 45202		10. Grant or Project No. NY-08-0154	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered	
		14. Sponsoring Agency Code Larry URO-2 Penner	
15. Supplementary Notes			
16. Abstract <p>Westchester County bus service is operated through a unique joint public private operation. The County provides the vehicles and manages the operation. The actual operation of the vehicles is contracted through private operators, of which Liberty Lines Transit, Inc., is by far the largest service provider.</p> <p>Paratransit service within Westchester County was formerly provided by two private operators, Ecole and American Ambulette, both based in Yonkers. Ecole served the western half of the County; American Ambulette served the eastern portion. In the spring of 1989, Westchester County issued a request for bids to operate the service effective September 1, 1989. Service is being provided curb-to-curb. Driver assistance is limited to helping the passenger board or alight the vehicle.</p> <p>This review is designed to identify the degree to which the system is fulfilling its objectives, as well as the organization's efficiency in utilizing its resources to meet those objectives. Current or potential problem areas were reviewed. The resulting recommendations are then designed to address each specific weakness with the twofold purpose of solving or preventing problems and implementing procedures to assist management in monitoring and controlling the function in the future.</p>			
17. Key Words Paratransit Bus Commuter Rail		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. of this page unclassified	21. No. of Pages 165	22. Price (NTIS) - A09

1. Report No. UMTA-MA-08-9023-88-1	2. Government Accession No.(NTIS) PB 89-189591/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Comprehensive Transit Plan for the Virgin Islands. Report of the Secretary of Transportation to the United States Congress.		5. Report Date December 1988	6. Performing Organization Code
7. Author(s)	8. Performing Organization Report No.		
9. Performing Organization Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 7th Street, SW Washington, DC 20590		10. Work Unit No. (TRAIS)	11. Contract or Grant No. UMTA-MA-08-9023
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Report to Congress	
15. Supplementary Notes		14. Sponsoring Agency Code UGM-20	
16. Abstract <p>The United States Virgin Islands are home to more than 110,000 residents and vacation lands to more than 1,300,000 tourists each year. Increased population and tourism have created problems of deteriorating bus service and traffic congestion. Lack of popular consensus and limited financial resources have hindered improvements. This study of transportation in the Virgin Islands was initiated in response to the mandate contained in Section 355 of the Surface Transportation and Uniform Relocation Assistance Act of 1987. It addresses the mass transportation needs of the Virgin Islands (St. Thomas, St. Croix, and St. John Islands) as well as means to reduce the traffic congestion and improve parking in the urban centers. This report documents the major findings and recommendations of the study. Traffic improvement plans are charted-out along with recommended plan costs. This study reports that added revenues for transit are necessary if transit is to become a viable mode of transportation in the Virgin Islands.</p>			
17. Key Words Transit Plan Virgin Islands Report to Congress UMTA Section 8 St. Thomas St. Croix St. John Traffic Congestion Parking Improvement Plan Implementation		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 28	22. Price A03

09. Planning, Policy & Program Development

Technical Report Documentation Page

1. Report No. UMTA-MA-08-9023-88-2	2. Government Accession No. PB 90-115700/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 8	
4. Title and Subtitle COMPREHENSIVE TRANSIT PLAN FOR THE VIRGIN ISLANDS - Technical Report		5. Report Date January 1989	6. Performing Organization Code DTS-49
7. Author(s) Robert F. Casey, Judith C. Schwenk, and Herbert S. Levinson*		8. Performing Organization Report No. DOT-TSC-UMTA-89-3	
9. Performing Organization Name and Address U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center Cambridge, MA 02142		10. Work Unit No. (TRAIS) UM981/U9103	11. Contract or Grant No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Grants Management Washington, DC 20590		13. Type of Report and Period Covered Final Report September 1987 - July 1988	
15. Supplementary Notes *Under contract to:		14. Sponsoring Agency Code UGM-20	
<p>U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center Cambridge, MA 02142</p> <p>16. Abstract</p> <p>This report contains a description of the elements and recommendations of a transportation study of the islands of St. Thomas, St. Croix, and St. John in the U.S. Virgin Island archipelago. An extensive data collection effort, including traffic volume counts, turning movement counts, a cordon count (Charlotte Amalie), speed and delay runs, transit and taxivan ridership counts, and transit schedule adherence checks, was undertaken to provide the base data for the study. In addition, interviews with Government officials and private citizens concerned with transportation and environmental matters were conducted.</p> <p>St. Thomas transit recommendations included the purchase of new buses, the construction of new maintenance facilities, a substantial increase in service levels, and an open competition for management and operation of the service. For St. Croix, a subsidized taxivan service was recommended on a trial basis on three routes. Highway recommendations included an increase in roadway capacity along the Charlotte Amalie waterfront, reconstruction of critical intersections, traffic engineering improvements, and the implementation of a paid on-street parking program for St. Thomas. Reconstruction of major intersections, several turning movement enhancements, construction of the long-proposed Christiansted bypass, the expansion of off-street parking lots in Christiansted, and on-street parking management changes were recommended for St. Croix. The study endorsed current Department of Public Works plans to rehabilitate sections of major roadways on St. John.</p> <p>Of an institutional nature, it was recommended that a new governmental instrumentality be created to oversee mass transportation (including ferries), parking, and taxi services. Several possible sources of added revenue were discussed as potential means of providing the funding for the needed improvements.</p>			
17. Key Words Transit Plan, Highway Plan, Urban Transportation, Urban Traffic Congestion		18. Distribution Statement DOCUMENT IS AVAILABLE TO THE PUBLIC THROUGH THE NATIONAL TECHNICAL INFORMATION SERVICE, SPRINGFIELD, VIRGINIA 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 310	22. Price A 14

1. Report No. UMTA-TX-08-8014-89-1	2. Government Accession No. PB 90-130378/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle 1988 Texas Transit Statistics.		5. Report Date August 1989	
		6. Performing Organization Code	
7. Author(s)		8. Performing Organization Report No.	
9. Performing Organization Name and Address Texas State Department of Highways & Public Transportation, Planning Division PO Box 5051 Austin, Texas 78763		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. UMTA-TX-08-8014	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		13. Type of Report and Period Covered Annual Report Planning study	
		14. Sponsoring Agency Code UMTA Region 6	
15. Supplementary Notes			
16. Abstract <p>This report, 1988 Texas Transit Statistics, is a comprehensive annual report on the 18 municipal transit systems operating in the State of Texas during 1988. It includes the 7 Metropolitan Transit Authorities operating in Texas in 1988-- Metropolitan Transit Authority of Harris County (Houston); VIA Metropolitan Transit (San Antonio); Dallas Area Rapid Transit; Fort Worth Transportation Authority; Capital Metropolitan Transportation Authority (Austin); Corpus Christi Regional Transit Authority; and El Paso City Transit Department. This report consists solely of charts and tables that provide ridership and operating statistics for each of the 18 municipal transit systems as well as for the State of Texas-at-large. More than 198 million (M) passengers were carried by these 18 systems in 1988 (7.8 percent increase from 184.2 M passengers carried in 1987). Transit vehicle miles increased about 10.7 percent to 108.8 M miles in 1988 as compared to 98.2 M miles in 1987. General operating costs increased 21.6 percent from \$201.1 M in 1987 to \$244.4 M in 1988. Total operating revenue per vehicle mi. increased by 1.1 percent. Total operating expenses per vehicle mile increased by 1.5 percent. The total public expense increased from \$282.1 M to \$460.6 M in 1988 (includes operating costs of \$244.4 M and capital costs of \$216.2 M in 1988). Public transportation funds committed in Texas increased from \$140.5 M in 1987 to \$368.6 M in 1988. This increase in spending reflects the initiation of major capital improvement projects in the State's largest cities. These committed funds include state, federal and local monies.</p>			
17. Key Words 1988 Texas Transit Statistics Statewide Municipal Transit Ridership Ridership Operations Funding Revenues Vehicle Miles Passenger Statistics Bus Regional Transit Annual Report Planning 18 Municipal Transit Systems		18. Distribution Statement Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 36	22. Price A03

09. Planning, Policy & Program Development

TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No. UMTA-TX-08-8014-89-5	2. Government Accession No. (NTIS) PB 90-225608	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle The Development of Standard Transit Profiles for Texas		5. Report Date November 1989	
7. Author(s) Diane L. Bullard		6. Performing Organization Code	
9. Performing Organization Name and Address Texas Transportation Institute The Texas A&M University System College Station, Texas 77843-3135		8. Performing Organization Report No. Technical Report 2005-1F	
12. Sponsoring Agency Name and Address Texas State Department of Highways and Public Transportation Transportation Planning Division P. O. Box 5051 Austin, Texas 78763		10. Work Unit No. TX-08-8014	
		11. Contract or Grant No. Study 2-10-89-2005	
15. Supplementary Notes Companion report - 1988 Texas Transit Statistics, Aug. 1989. PB 90-130378, A03.		13. Type of Report and Period Covered Final: September 1988 - November 1989	
		14. Sponsoring Agency Code URO-6	
16. Abstract An extensive amount of financial and operational data on the public transit systems of Texas is presently being published by a variety of governmental agencies and industry associations. However, the manner in which much of this data is collected and published reduces its potential usefulness to transit operators and planning agencies. In response to this problem, standard transit system profiles are developed for the eighteen municipal systems of Texas. The transit system profiles were intended to include a range of financial, operational and performance variables in order to provide an overview of each system's characteristics. The development of these profiles will allow transit operators and planning agencies to: 1) monitor trends and evaluate changes in a transit system's performance over time; and 2) compare the financial and operational performance of one agency with that of similar operations in the state.			
17. Key Words public transit, public transportation, transit profiles, transit performance, transit efficiency, transit effectiveness		18. Distribution Statement No restrictions. This document is available to the public through the: National Technical Information Service 5285 Port Royal Road Springfield, Virginia 22161	
19. Security Classif. (of the report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 296	22. Price A13

1. Report No. UMTA-DC-08-0016-88-1	2. Government Accession No.(NTIS) PB 89-190607	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Unified Regional Snow Emergency Plan for the Washington Metropolitan Area. Regional Snow Priority Routes		5. Report Date October 1988	6. Performing Organization Code
		8. Performing Organization Report No. 88805	
7. Author's Zelinka, JJ and Rametta, TP		10. Work Unit No. (TRIS)	11. Contract or Grant No. UMTA-DC-08-0016
9. Performing Organization Name and Address Metropolitan Washington Council of Governments 1875 Eye Street, NW Washington, DC 20006		13. Type of Report and Period Covered Snow Emergency Plan	
		14. Sponsoring Agency Code UGM-20	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		15. Supplementary Notes This report and the attached Regional Snow Priority Routes Map is also available from the Metropolitan Washington Council of Governments, Washington DC 20006. 202/223-6800. Price \$25	
16. Abstract: The purpose of this operations plan is to provide a regional response to snow and ice emergencies in the Washington Metropolitan area. The plan focuses on 4 key operational areas: identification and ability to keep open a network of regional snow priority routes for maintenance of the region's transportation system; establishment and effective operation of a regional communications system during snow emergencies; development of the decision-making process for an early morning "Go, No-Go" delayed opening decision for government offices and private sector places of employment; and for development of public education and public information programs to be implemented prior to snow season. Each of the subject areas, plus weather, is described separately in the Annex section of this report. The plan lists Task Force, Working Group and COG staff members. It provides the rationale for developing the plan, charts-out weather data, and explains the plan's implementation and termination procedures. A map identifying regional snow priority routes is provided as a separate enclosure. Route selection criteria are listed along with lists of personnel engaged in snow clearing operations. This Operations Plan replaces the Unified Regional Snow Emergency Concept Plan 1987-1988 prepared by the Metropolitan Washington COG. Upon receipt of this plan, The 1987 Concept Plan should be discarded.			
17. Key Words Regional Snow Priority Routes Snow Emergency Plan Operations Plan Regional Plan Snow Removal Washington Metropolitan Area UMTA Section 8 Weather Data-Map		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 85	22. Price (NTIS) A06

1. Report No. UMTA-MA-08-9023-88-1	2. Government Accession No.(NTIS) PB 89-189591/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Comprehensive Transit Plan for the Virgin Islands. Report of the Secretary of Transportation to the United States Congress.		5. Report Date December 1988	6. Performing Organization Code
		8. Performing Organization Report No.	
		7. Author(s)	10. Work Unit No. (TRAIS)
9. Performing Organization Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 7th Street, SW Washington, DC 20590		13. Type of Report and Period Covered Report to Congress	
15. Supplementary Notes			
16. Abstract <p>The United States Virgin Islands are home to more than 110,000 residents and vacation lands to more than 1,300,000 tourists each year. Increased population and tourism have created problems of deteriorating bus service and traffic congestion. Lack of popular consensus and limited financial resources have hindered improvements. This study of transportation in the Virgin Islands was initiated in response to the mandate contained in Section 355 of the Surface Transportation and Uniform Relocation Assistance Act of 1987. It addresses the mass transportation needs of the Virgin Islands (St. Thomas, St. Croix, and St. John Islands) as well as means to reduce the traffic congestion and improve parking in the urban centers. This report documents the major findings and recommendations of the study. Traffic improvement plans are charted-out along with recommended plan costs. This study reports that added revenues for transit are necessary if transit is to become a viable mode of transportation in the Virgin Islands.</p>			
17. Key Words Transit Plan Virgin Islands Report to Congress UMTA Section 8 St. Thomas St. Croix St. John Traffic Congestion Parking Improvement Plan Implementation		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 28	22. Price A03

1. Report No. UMTA-MA-08-9023-88-2	2. Government Accession No. PB 90-115700/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 8	
4. Title and Subtitle COMPREHENSIVE TRANSIT PLAN FOR THE VIRGIN ISLANDS - Technical Report		5. Report Date January 1989	6. Performing Organization Code DTS-49
		8. Performing Organization Report No. DOT-TSC-UMTA-89-3	
7. Author(s) ROBERT F. Casey, Judith C. Schwenk, and Herbert S. Levinson*		10. Work Unit No. (TRAIS) UM981/U9103	
9. Performing Organization Name and Address U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center Cambridge, MA 02142		11. Contract or Grant No.	
		13. Type of Report and Period Covered Final Report September 1987 - July 1988	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Grants Management Washington, DC 20590		14. Sponsoring Agency Code UGM-20	
		15. Supplementary Notes *Under contract to: U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center Cambridge, MA 02142	
16. Abstract This report contains a description of the elements and recommendations of a transportation study of the islands of St. Thomas, St. Croix, and St. John in the U.S. Virgin Island archipelago. An extensive data collection effort, including traffic volume counts, turning movement counts, a cordon count (Charlotte Amalie), speed and delay runs, transit and taxivan ridership counts, and transit schedule adherence checks, was undertaken to provide the base data for the study. In addition, interviews with Government officials and private citizens concerned with transportation and environmental matters were conducted. St. Thomas transit recommendations included the purchase of new buses, the construction of new maintenance facilities, a substantial increase in service levels, and an open competition for management and operation of the service. For St. Croix, a subsidized taxivan service was recommended on a trial basis on three routes. Highway recommendations included an increase in roadway capacity along the Charlotte Amalie waterfront, reconstruction of critical intersections, traffic engineering improvements, and the implementation of a paid on-street parking program for St. Thomas. Reconstruction of major intersections, several turning movement enhancements, construction of the long-proposed Christiansted bypass, the expansion of off-street parking lots in Christiansted, and on-street parking management changes were recommended for St. Croix. The study endorsed current Department of Public Works plans to rehabilitate sections of major roadways on St. John. Of an institutional nature, it was recommended that a new governmental instrumentality be created to oversee mass transportation (including ferries), parking, and taxi services. Several possible sources of added revenue were discussed as potential means of providing the funding for the needed improvements.			
17. Key Words Transit Plan, Highway Plan, Urban Transportation, Urban Traffic Congestion		18. Distribution Statement DOCUMENT IS AVAILABLE TO THE PUBLIC THROUGH THE NATIONAL TECHNICAL INFORMATION SERVICE, SPRINGFIELD, VIRGINIA 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 310	22. Price A 14

1. Report No. UMTA-TX-08-8014-89-1	2. Government Accession No. PB 90-130378/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle 1988 Texas Transit Statistics.		5. Report Date August 1989	
		6. Performing Organization Code	
7. Author(s)		8. Performing Organization Report No.	
		10. Work Unit No. (TRAIS)	
9. Performing Organization Name and Address Texas State Department of Highways & Public Transportation, Planning Division PO Box 5051 Austin, Texas 78763		11. Contract or Grant No. UMTA-TX-08-8014	
		13. Type of Report and Period Covered Annual Report Planning study	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		14. Sponsoring Agency Code UMTA Region 6	
		15. Supplementary Notes	
16. Abstract <p>This report, 1988 Texas Transit Statistics, is a comprehensive annual report on the 18 municipal transit systems operating in the State of Texas during 1988. It includes the 7 Metropolitan Transit Authorities operating in Texas in 1988-- Metropolitan Transit Authority of Harris County (Houston); VIA Metropolitan Transit (San Antonio); Dallas Area Rapid Transit; Fort Worth Transportation Authority; Capital Metropolitan Transportation Authority (Austin); Corpus Christi Regional Transit Authority; and El Paso City Transit Department. This report consists solely of charts and tables that provide ridership and operating statistics for each of the 18 municipal transit systems as well as for the State of Texas-at-large. More than 198 million (M) passengers were carried by these 18 systems in 1988 (7.8 percent increase from 184.2 M passengers carried in 1987). Transit vehicle miles increased about 10.7 percent to 108.8 M miles in 1988 as compared to 98.2 M miles in 1987. General operating costs increased 21.6 percent from \$201.1 M in 1987 to \$244.4 M in 1988. Total operating revenue per vehicle mi. increased by 1.1 percent. Total operating expenses per vehicle mile increased by 1.5 percent. The total public expense increased from \$282.1 M to \$460.6 M in 1988 (includes operating costs of \$244.4 M and capital costs of \$216.2 M in 1988). Public transportation funds committed in Texas increased from \$140.5 M in 1987 to \$368.6 M in 1988. This increase in spending reflects the initiation of major capital improvement projects in the State's largest cities. These committed funds include state, federal and local monies.</p>			
17. Key Words 1988 Texas Transit Statistics Statewide Municipal Transit Ridership Ridership Operations Funding Revenues Vehicle Miles Passenger Statistics Bus Regional Transit Annual Report Planning 18 Municipal Transit Systems		18. Distribution Statement Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 36	22. Price A03

1. Report No. UMTA-MA-08-9023-88-1	2. Government Accession No. (NTIS) PB 89-189591/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Comprehensive Transit Plan for the Virgin Islands. Report of the Secretary of Transportation to the United States Congress.		5. Report Date December 1988	6. Performing Organization Code
7. Author(s)		8. Performing Organization Report No.	
9. Performing Organization Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 7th Street, SW Washington, DC 20590		10. Work Unit No. (TRAIS)	11. Contract or Grant No. UMTA-MA-08-9023
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Report to Congress	
15. Supplementary Notes		14. Sponsoring Agency Code UGM-20	
16. Abstract <p>The United States Virgin Islands are home to more than 110,000 residents and vacation lands to more than 1,300,000 tourists each year. Increased population and tourism have created problems of deteriorating bus service and traffic congestion. Lack of popular consensus and limited financial resources have hindered improvements. This study of transportation in the Virgin Islands was initiated in response to the mandate contained in Section 355 of the Surface Transportation and Uniform Relocation Assistance Act of 1987. It addresses the mass transportation needs of the Virgin Islands (St. Thomas, St. Croix, and St. John Islands) as well as means to reduce the traffic congestion and improve parking in the urban centers. This report documents the major findings and recommendations of the study. Traffic improvement plans are charted-out along with recommended plan costs. This study reports that added revenues for transit are necessary if transit is to become a viable mode of transportation in the Virgin Islands.</p>			
17. Key Words Transit Plan Virgin Islands Report to Congress UMTA Section 8 St. Thomas St. Croix St. John Traffic Congestion Parking Improvement Plan Implementation		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 28	22. Price A03

1. Report No. UMTA-MA-08-9023-88-2	2. Government Accession No. PB 90-115700/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 8	
4. Title and Subtitle COMPREHENSIVE TRANSIT PLAN FOR THE VIRGIN ISLANDS - Technical Report		5. Report Date January 1989	6. Performing Organization Code DTS-49
7. Author(s) Robert F. Casey, Judith C. Schwenk, and Herbert S. Levinson*		8. Performing Organization Report No. DOT-TSC-UMTA-89-3	
9. Performing Organization Name and Address U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center Cambridge, MA 02142		10. Work Unit No. (TRAIS) UM981/U9103	11. Contract or Grant No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Grants Management Washington, DC 20590		13. Type of Report and Period Covered Final Report September 1987 - July 1988	
15. Supplementary Notes *Under contract to:		14. Sponsoring Agency Code UGM-20	
<p>U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center Cambridge, MA 02142</p> <p>16. Abstract</p> <p>This report contains a description of the elements and recommendations of a transportation study of the islands of St. Thomas, St. Croix, and St. John in the U.S. Virgin Island archipelago. An extensive data collection effort, including traffic volume counts, turning movement counts, a cordon count (Charlotte Amalie), speed and delay runs, transit and taxivan ridership counts, and transit schedule adherence checks, was undertaken to provide the base data for the study. In addition, interviews with Government officials and private citizens concerned with transportation and environmental matters were conducted.</p> <p>St. Thomas transit recommendations included the purchase of new buses, the construction of new maintenance facilities, a substantial increase in service levels, and an open competition for management and operation of the service. For St. Croix, a subsidized taxivan service was recommended on a trial basis on three routes. Highway recommendations included an increase in roadway capacity along the Charlotte Amalie waterfront, reconstruction of critical intersections, traffic engineering improvements, and the implementation of a paid on-street parking program for St. Thomas. Reconstruction of major intersections, several turning movement enhancements, construction of the long-proposed Christiansted bypass, the expansion of off-street parking lots in Christiansted, and on-street parking management changes were recommended for St. Croix. The study endorsed current Department of Public Works plans to rehabilitate sections of major roadways on St. John.</p> <p>Of an institutional nature, it was recommended that a new governmental instrumentality be created to oversee mass transportation (including ferries), parking, and taxi services. Several possible sources of added revenue were discussed as potential means of providing the funding for the needed improvements.</p>			
17. Key Words Transit Plan, Highway Plan, Urban Transportation, Urban Traffic Congestion		18. Distribution Statement DOCUMENT IS AVAILABLE TO THE PUBLIC THROUGH THE NATIONAL TECHNICAL INFORMATION SERVICE, SPRINGFIELD, VIRGINIA 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 310	22. Price A14

1. Report No. UMTA-MD-11-0007-88-1	2. Government Accession No. (NTIS) PB 89-139745/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 11	
4. Title and Subtitle A Guide to Strategic Planning for Transit Properties.		5. Report Date December 1988	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) Z.A. Farkas, and M. Ayele		10. Grant or Project No. UMTA-MD-11-0007	
9. Performing Organization Name and Address Morgan State University Center for Transportation Studies Baltimore, Maryland 21239		11. Contract No.	
		13. Type of Report and Period Covered Final Report University Research	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UTS-30	
		15. Supplementary Notes	
16. Abstract Strategic planning is a management tool used to analyze fundamental issues and changes and to aid managers in effecting organizational response to change. It differs from other forms of long-range planning because of its emphasis on environmental change, plan implementation, and monitoring of results. This guide is a reference tool for transit managers who wish to manage strategically. It is a source of information on the evolution and application of strategic planning in various organizations. The objectives of the report are: to explain why transit agencies should plan and manage strategically; to demonstrate how strategic planning works; to present cases of strategic planning in the transit industry; and to recommend a framework for strategic planning. The guide presents and discusses a review of the strategic planning/management literature in terms of participation in strategic planning conferences and workshops, strategic plans and case studies of five transit properties' strategic planning efforts. The five case studies of strategic planning examined in this report are: Alameda-Contra Costa Transit District, New Jersey Transit, Port Authority of Allegheny County Transit, Seattle Metro Transit, and Utah Transit. The first fundamental conclusion resulting from this project was that upper management, particularly the general manager, must make an early and serious commitment of time and resources to the strategic planning effort. This means that management must organize and actively participate in the process to lend it the credibility and direction that only management can give.			
17. Key Words Strategic Planning/Management Case Studies Organization Environmental Analyses Goals Guide Management Framework Implementation UMTA Section 11		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 171	22. Price (NTIS) A08

1. Report No. UMTA-TX-08-8014-89-1	2. Government Accession No. PB 90-130378/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle 1988 Texas Transit Statistics.		5. Report Date August 1989	
		6. Performing Organization Code	
		8. Performing Organization Report No.	
7. Author(s)		10. Work Unit No. (TRAIS)	
9. Performing Organization Name and Address Texas State Department of Highways & Public Transportation, Planning Division PO Box 5051 Austin, Texas 78763		11. Contract or Grant No. UMTA-TX-08-8014	
		13. Type of Report and Period Covered Annual Report Planning study	
		14. Sponsoring Agency Code UMTA Region 6	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		15. Supplementary Notes	
16. Abstract <p>This report, 1988 Texas Transit Statistics, is a comprehensive annual report on the 18 municipal transit systems operating in the State of Texas during 1988. It includes the 7 Metropolitan Transit Authorities operating in Texas in 1988-- Metropolitan Transit Authority of Harris County (Houston); VIA Metropolitan Transit (San Antonio); Dallas Area Rapid Transit; Fort Worth Transportation Authority; Capital Metropolitan Transportation Authority (Austin); Corpus Christi Regional Transit Authority; and El Paso City Transit Department. This report consists solely of charts and tables that provide ridership and operating statistics for each of the 18 municipal transit systems as well as for the State of Texas-at-large. More than 198 million (M) passengers were carried by these 18 systems in 1988 (7.8 percent increase from 184.2 M passengers carried in 1987). Transit vehicle miles increased about 10.7 percent to 108.8 M miles in 1988 as compared to 98.2 M miles in 1987. General operating costs increased 21.6 percent from \$201.1 M in 1987 to \$244.4 M in 1988. Total operating revenue per vehicle mi. increased by 1.1 percent. Total operating expenses per vehicle mile increased by 1.5 percent. The total public expense increased from \$282.1 M to \$460.6 M in 1988 (includes operating costs of \$244.4 M and capital costs of \$216.2 M in 1988). Public transportation funds committed in Texas increased from \$140.5 M in 1987 to \$368.6 M in 1988. This increase in spending reflects the initiation of major capital improvement projects in the State's largest cities. These committed funds include state, federal and local monies.</p>			
17. Key Words 1988 Texas Transit Statistics Statewide Municipal Transit Ridership Ridership Operations Funding Revenues Vehicle Miles Passenger Statistics Bus Regional Transit Annual Report Planning 18 Municipal Transit Systems		18. Distribution Statement Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 36	22. Price A03

09. Planning, Policy & Program Development

Technical Report Documentation Page

1. Report No. UMTA-UGM-10-90-1	2. Government Accession No. (NTIS) PB90 219965/AS	3. Information System UMTRIS/UMTA Section 8, 9	
4. Title and Subtitle 1989 Statistical Summaries: Grant Assistance Program.		5. Report Date April	
		6. DOT Report Number	
7. Author's Jo Tucci		8. Performing Organization Report No.	
9. Performing Organization Name and Address Urban Mass Transportation Administration Office of Capital and Formula Assistance U.S. Department of Transportation Washington, DC 20590		10. Grant or Project No. UMTA-UGM-10	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered Statistical UMTA Grants Assistance	
		14. Sponsoring Agency Code UGM-10	
15. Supplementary Notes			
16. Abstract <p>This report presents statistical summaries of UMTA's Grant Assistance Program. Grant assistance to the providers of local mass transportation began with the passage of the Urban Mass Transportation Act of 1964. A total of \$3.5 billion in grants was awarded during fiscal year 1989, raising the grand total of assistance to \$52.7 billion. Of the \$3.5 billion awarded, 74 percent was programmed for capital purposes; 24 percent for operating expenditures; and the remaining 2 percent for planning assistance. Excluding Stark-Harris grants, the largest urbanized areas with populations over 1 million received 79 percent of the total grant funds obligated during FY 1989. This Statistical Summaries report presents selected data on the distribution and use of various Formula and Discretionary program funds. These programs are the main source of Federal financial aid to urban and non-urban areas. Data was compiled from the capital, operating and planning assistance grants awarded in FY 1989 to transit authorities, states, metropolitan planning organizations, and other units of local governments. The statistical data charted-out in this report apply to the following UMTA programs: Programs Financed by the Mass Transit Account of Highway Trust Fund (Sections 3, 8, 16(b)(2), 9B); Programs Financed by General Funds (Sections 9, 18, Interstate Transfer); Programs Financed by the Highway Account of the Highway Trust Fund (FAUS); and Special Appropriation (Section 75, Stark-Harris).</p>			
17. Key Words UMTA Grants Assistance Program Formula Funds Discretionary Funds New Systems Ferry Boat Buses Vehicles Rural Transit Assistance Capital Grants Planning Operating		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 95	22. Price (NTIS) A05

1. Report No. UMTA-GA-08-7002-90-1	2. Government Accession No. NTIS PB 91-153114	3. Recipient's No. Section 8 /UMTRIS	
4. Title and Subtitle Atlanta Regional Commission Rail Car Cost Containment Study		5. Report Date	
		6. Performing Organization Code	
7. Author (s) Metropolitan Atlanta Rapid Transit Authority/ Systems Engineering and LTK Engineering Services *		6. Performing Organization Report No.	
9. Performing Organization Name and Address Metropolitan Atlanta Rapid Transit Authority (MARTA) 2424 Piedmont Road, N. E. Atlanta, Georgia 30324-3324		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. GA-08-7002	
12. Sponsoring Agency Name and Address U. S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W., Washington, D. C. 20590		13. Type of Report and Period Covered November 1990	
		14. Sponsoring Agency Code UTS-21	
15. Supplementary Notes * LTK Engineering Services Philadelphia, Pennsylvania 19102			
16. Abstract The Metropolitan Atlanta Rapid Transit Authority (MARTA) is one of four agencies participating in the Rail Car Cost Containment Program sponsored by the Urban Mass Transportation Administration. MARTA's objective in conducting the cost containment study was to: 1. Identify and consider elimination of any high cost, low worth functions from its rail specifications; 2. Develop feasible alternatives for essential functions and then obtain industry view about the cost impacts; 3. Quantify the cost savings; and 4. Produce a final project report. The study showed, based on information gathered during interviews with car builders, subsystem suppliers, and other Transit Authorities, some ways to contain the costs of rail cars and how to reduce the manufacturers' uncertainty and risk. Transit Authorities have to understand manufacturers' practices, problems, and points of view. Also, negotiated procurements tend to show that mutual understanding of the requirements and risks lead to cost reductions.			
17. Key Words Rail Cars Specifications Value Analysis Rail Transit Value Engineering Terms and Conditions		18. Distribution Statement Available to the public through the National Technical Information Service Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (Of this page) Unclassified	21. No. Of Pages 55	22. Price A04

1. Report No. UMTA-TX-08-0262-89-1	2. Government Accession No. NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8
4. Title and Subtitle Capital Metro Five-Year Service Plan prepared for Capital Metropolitan Transportation Authority	5. Report Date December 1989	6. Performing Organization Code
	8. Performing Organization Report No.	
7. Author(s) Abrams-Cherwony & Associates	10. Work Unit No.	
9. Performing Organization Name and Address Capital Metropolitan Transportation Authority 2910 East Fifth Street Austin, Texas 78702	11. Contract or Grant No. TX-08-0262	
	13. Type of Report and Period Covered	
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration U.S. Department of Transportation Washington, D.C. 20590	14. Sponsoring Agency Code UTS-30	
	15. Supplementary Notes . See block no. 18 below for report availability information.	
16. Abstract This report presents the results of a comprehensive analysis of the bus services of the Capital Metropolitan Transportation Authority operating in the Austin, Texas area. The objective of the study is the preparation of a service plan that addresses the provision of new service and lays out a process for monitoring performance of the current system. It should be noted that the focus of the study is on the regular route services of Capital Metro which excludes the Specialized Transit Services (STS) and the downtown DILLO services. A separate plan for transit services in downtown Austin, which includes the DILLO service, is being addressed within another study.		
17. Key Words Bus Crosstowns Downtown Transit Improvement Dial-A-Ride	18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, IL 60201; and University of California-Berkeley.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 88
		22. Price

1. Report No. UMTA-NY-08-0150-90-2	2. Government Accession No. (NTIS) PB 91-119222	3. Information System UMTRIS/UMTA Section 8	
4. Title and Subtitle A Choice of Direction Volume 1 & 2 Vol. 1 - A Strategic Plan for Westchester County Dept. of Transp. - Executive Summary Vol. II - A Strategic Plan etc., 1990-1992		5. Report Date January 1990	6. DOT Report Number
		8. Performing Organization Report No.	
7. Author(s) Westchester County Department of Transportation		10. Grant or Project No. UMTA-NY-08-0150	
9. Performing Organization Name and Address New York Metropolitan Transportation Council One World Trade Center, Suite 82 East, New York, N.Y. 10004		11. Contract No.	
		13. Type of Report and Period Covered Final Report Effective Date Jan. 1990 1990-1992	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code URO-2	
		15. Supplementary Notes	
16. Abstract <p>A strategic plan is a framework for future resource allocations and deployments, and it provides a method to assess an agency's capability to meet future demands. Strategic planning can be viewed as a management tool for anticipating changes, maintaining program effectiveness, and positioning an agency to respond to changing conditions.</p> <p>The purpose of a strategic plan is to define the agency's goals and objectives and to develop strategies through which they can be achieved. An effective strategic plan will assist the agency and its policy-makers in responding to new trends and opportunities. The plan can also be useful to policy-makers in allocating appropriate funds to meet the agency's mission.</p> <p>As a management tool, a strategic plan can increase both the effectiveness and efficiency of an agency's effort to meet the public's needs within the context of competing programs and resources. The creation of a plan enables an agency to reach internal consensus in terms of purpose and sense of accomplish this, a plan requires an assessment of the agency's environment, the adoption of a clear mission statement, a concise and realistic definition of goals and objectives, and an outline of specific strategies and actions.</p>			
17. Key Words Bus Rail Vehicle Maintenance MOV Lanes/Vehicles	18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650		
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages	22. Price (NTIS) All

1. Report No. UMTA-TX-08-0262-90-1	2. Government Accession No. NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Downtown Transit Improvement Plan		5. Report Date July 30, 1990	6. Performing Organization Code
7. Author(s) DeShazo, Starek & Tang, Inc.		8. Performing Organization Report No.	
9. Performing Organization Name and Address Courtyard at 208 West Fourth Street Austin, Texas 78701		10. Work Unit No.	11. Contract or Grant No. CMTA 2646-88 / TX-08-0262
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration U.S. Department of Transportation Washington, D.C. 20590		13. Type of Report and Period Covered Final Report	
15. Supplementary Notes . See block no. 18 below for report availability information.		14. Sponsoring Agency Code UTS-30	
16. Abstract <p>This report addresses the mobility improvements attempt to strike a balance between projected demand for service and preserving many of the area's existing characteristics. In terms of funding these improvements, Capital Metro (2910 East Fifth Street; Austin, Texas 78702) should pursue coordination with the corridor development community and public agencies such as the City of Austin, to facilitate the implementation of transportation improvements as needed. Due to local economic conditions, it may be appropriate for Capital Metro to consider financial participation in a comprehensive mobility improvements package for the redevelopment corridor.</p>			
17. Key Words Transit Ridership Radial Route Dillo		18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, IL 60201; and University of California-Berkeley.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 123	22. Price

13D. Rapid Rail Vehicles & Systems

Technical Report Documentation Page

1. Report No. UMTA-MA-08-9021-89-1	2. Government Accession No. (NTIS) PB 90-148693	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Urban Rail Transit Projects: Forecast Versus Actual Ridership and Costs.		5. Report Date October 1989	
		Performing Organization Code	
7. Author(s) Pickrell, D.H., Dr.		8. Performing Organization Report No.	
9. Performing Organization Name and Address Transportation Systems Center U.S. Department of Transportation Kendall Square Cambridge, Massachusetts 02142		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. UMTA-MA-08-9021	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		13. Type of Report and Period Covered Final Report Planning Study	
		14. Sponsoring Agency Code UGM-20	
15. Supplementary Notes			
16. Abstract Substantial errors in forecasting ridership and costs for the ten rail transit projects reviewed in this report, put forth the possibility that more accurate forecasts would have led decision-makers to select projects other than those reviewed in this report. This study examines the accuracy of forecasts prepared for ten major capital improvement projects in nine urban areas during 1971-1987. Each project includes construction of a fixed transit guideway: Rapid Rail or Metrorail (Washington DC, Atlanta, Baltimore, Miami); Light Rail Transit (Buffalo, Pittsburgh, Portland, Sacramento); and Downtown Peoplemover (Miami and Detroit). The study examines why actual costs and ridership differed so markedly from their forecast values. It focuses on the accuracy of projections made available to local decision-makers at the time when the choice among alternative projects was actually made. The study compares forecast and actual values for four types of measures: Ridership, Capital costs and financing, Operating and maintenance costs, and Cost-effectiveness. Forecasting data used in making comparisons were obtained from published planning documents; actual data were drawn from a combination of published sources, internal documents, and direct contacts with employees. This review of past forecasting errors identifies the causes of the divergence between forecast and actual performance of these projects; makes recommendations to improve the reliability of forecasts for future projects; and contributes toward fostering better urban transportation investment decisions. This report is organized into 6 chapters, numerous tables, and an appendix that documents the sources of all data appearing in the tables presented in this report.			
17. Key Words Urban Rail Transit Projects Review Forecasting Ridership Costs Capital Outlays Actual Comparisons Financing Operations Maintenance Cost Effectiveness Planning Procedures Metrorail PeopleMover Light Rail		18. Distribution Statement Available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 164	22. Price(NTIS) A08

1. Report No. UMTA-NJ-08-7002-90-1	2. Government Accession No. (NTIS) PB 91-119230	3. Recipient's Catalog No. UMTRIS/Section 8	
4. Title and Subtitle RAIL ROLLING STOCK COST CONTAINMENT STUDY		5. Report Date September 1990	
		6. Performing Organization Code	
7. Author(s) Lea+Elliot, Inc./FAI, Inc./Raul V. Bravo + Assoc.		8. Performing Organization Report No.	
9. Performing Organization Name and Address New Jersey Transit Corporation McCarter Highway and Market Street P.O. Box 10009 Newark, New Jersey 07171		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. NJ-08-7002	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590		13. Type of Report and Period Covered Final 1989-1990	
		14. Sponsoring Agency Code UTS-21	
15. Supplementary Notes			
16. Abstract During the past decade, the New Jersey Transit Corporation (NJ TRANSIT) has spent approximately \$375 million for the purchase, upgrade, and rehabilitation of rail rolling stock. The Urban Mass Transportation Administration (UMTA) has determined that the average cost of a railcar continues to grow and is sponsoring work to determine how the costs may be contained. NJ TRANSIT selected the contract area of General Provisions and their attendant Terms and Conditions (T&C) clauses to be studied as part of the UMTA work. The purpose of this project was to critically review the T&C clauses to determine whether certain of them may be removed or changed to bring about a cost savings without sacrificing the substance of the necessary protection. This study defines the T&C clauses that could affect the cost of rail rolling stock purchases, establishes cost estimates for those clauses based on the T&C language in a specific NJ TRANSIT contract, identifies the cost drivers associated with each clause, provides a qualitative cost comparison of T&C clauses in a specific NJ TRANSIT contract against like clauses in other NJ TRANSIT contracts and in other transit authority contracts and suggests cost-saving approaches. Certain clauses (e.g., Buy America, Utilization of Disadvantaged Business Enterprises, and Cargo Preference - Use of U.S. Flag Vessels) were not included in the study because of the improbability of effecting a change therein.			
17. Key Words General Provisions Terms and Conditions Rail Rolling Stock Cost Containment Contract Clauses		18. Distribution Statement Document available to the Public through the National Technical Information Service, Springfield, Virginia 22161.	
Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 246	22. Price A08

1. Report No. UMTA-PA-08-9003-88-1	2. Government Accession No. (NTIS) PB 89-190268/AS	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Philadelphia Abandoned Trolley Restoration Feasibility Study. Report to Congress.		5. Report Date December 1988	
		6. Performing Organization Code	
7. Author(s)		8. Performing Organization Report No.	
9. Performing Organization Name and Address U.S. Department of Transportation* Urban Mass Transportation Administration 400 7th Street, SW Washington, DC 20590		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. UMTA-PA-08-9003	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590		13. Type of Report and Period Covered Report to Congress	
		14. Sponsoring Agency Code UGM-20	
15. Supplementary Notes *Prepared in cooperation with the Southeastern Pennsylvania Transportation Authority and the City of Philadelphia.			
16. Abstract This study is a response to a congressional request contained in Section 334 of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17). The study was undertaken to evaluate the desirability of restoring streetcar service to four segments (Routes 60, 6, 50-northern section, and 50-historic section) of the abandoned lines of Southeastern Pennsylvania Transportation Authority (SEPTA) streetcar system in the City of Philadelphia. The objective of the study was to determine whether the quantifiable benefits of restored streetcar service on segments with track and/or power, still in place, would warrant the necessary financial investment to restore and upgrade the remaining facilities. This study was undertaken as a cooperative enterprise of UMTA, SEPTA and the City of Philadelphia. The City of Philadelphia has expressed disagreement with some of the conclusions contained in this report.			
17. Key Words Report to Congress UMTA Section 8 Philadelphia Trolley Restoration System Planning Feasibility Study Capital Costs Economic Evaluation Operating Cost Ridership and Income Streetcar		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 23	22. Price A03

15. Transit Management

Technical Report Documentation Page

1. Report No. UMTA-TX-08-8014-89-3		2. Government Accession No. NON-NTIS REPORT		3. Recipient's Catalog No. UMTRIS/UMTA SECTION 8	
4. Title and Subtitle Automated Transit Ridership Data Collection. Pilot Test and User's Guide.				5. Report Date September 1989	
				6. Performing Organization Code	
7. Author(s) K.E. Barnes and T. Urbanik II				8. Performing Organization Report No. Technical Report 1087-2	
				10. Work Unit No. UMTA-TX-08-8014	
9. Performing Organization Name and Address The Texas A&M University System Texas Transportation Institute College Station, Texas 77843-3135				11. Contract or Grant No.	
				13. Type of Report and Period Covered Planning Study No. 2-11-87-1087	
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration U.S. Department of Transportation Washington, D.C. 20590				14. Sponsoring Agency Code UMTA Region 6	
				15. Supplementary Notes . See block no. 18 below for report availability information.	
16. Abstract <p>This study was designed to provide Texas small transit agencies with a cost effective means of collecting, checking and summarizing bus ridership data--an automated data collection (ADC) system. The report is a continuation of a Phase 1 study that tested an ADC system developed by Multisystems, Inc., identified it as the most cost effective and versatile system for Texas small transit agencies, and recommended that it be implemented at a local transit agency and evaluated in actual operation. The ADC system consisted of two integrated software packages: Check*mate is the software package for automating the collection of bus ridership data and uses a portable computer; and Transit Information Manager (TIM) software is the database and uses a PC to correct, evaluate and generate reports. This report documents the pilot testing and evaluation of the ADC system in actual use at CITIBUS, a local transit agency in Lubbock, Texas. It describes the hardware and software components of the automated system, and offers some of the CITIBUS personnel observations, conclusions and recommendation regarding the ADC system. The study developed and documented a supplement to the manufacturer's user's manual for use with the two software packages Check*mate and TIM. A major concern resulting from the pilot testing of the automated system was the considerable time required for ADC system setup. Overall the pilot test demonstrated that the system could be used effectively by transit systems to improve efficiency.</p>					
17. Key Words Automated Data Collection UMTA Section 8 Bus Ridership Data CITIBUS Pilot Test Small Systems Check*mate RIDECHEC Planning Computerized System Local Transit User's Manual Multisystems			18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, Il 60201; and University of California-Berkeley.		
19. Security Classif. (of this report) unclassified		20. Security Classif. (of this page) unclassified		21. No. of Pages 69	22. Price

18. Privatization

Technical Report Documentation Page

1. Report No. UMTA-TX-08-0253-88-1	2. Government Accession No. (NTIS) PB 89-231427	3. Information System UMTRIS/UMTA Section 8	
4. Title and Subtitle Dallas Area Rapid Transit Service Privatization: A Summary of Benefits/Risks for Transit Providers.		5. Report Date August 1988	
		6. DOT Report Number	
7. Author/s Bette A. Webster		8. Performing Organization Report No.	
9. Performing Organization Name and Address North Central Texas Council of Governments PO Drawer COG, Regional Data Center Arlington, Texas 76005-5888		10. Grant or Project No. UMTA-TX-08-0253	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered Case Studies Planning Studies 1970s - 1988	
		14. Sponsoring Agency Code UMTA Region 6	
15. Supplementary Notes Copies of this report are also available from the North Central Texas COG, telephone 817/640-3300 (see block no. 9 above for address).			
16. Abstract <p>Dallas Area Rapid Transit (DART) is a national leader in the field of transit privatization (\$59.5M privatization budget for FY88). The purpose of this study was to document the privatization efforts of DART for UMTA. This case study documents the socioeconomic, political, financial, technical and user characteristics that influenced transit privatization in the Dallas area from the 1970s through 1988. The results will allow other transit providers the opportunity to understand the benefits and potential risks of contracting for services from the private sector. This report consists of the following 6 sections: Historical Background; Suburban Express Bus Service Contracting; Suburban Fixed-Route Bus Service Contracting; Demand-Responsive Service Contracting; Transit Marketing Effects on Privatization Revenue; and DART Contract Procurement. The appendix in this report charts out the DART Service Area, Service and Budget Characteristics, Comparisons of Contract Bids with System Costs, as well as DART Private Sector Contracting Activity (1987-1988). DART's leading role in privatizing transit operations has occurred primarily through expansion of new transit service to the surrounding suburban communities. Currently, DART's largest expenditures occur in private consulting contracts for rail planning and bus transit planning. In the future, DART expects more privatization and joint venture activity as the multimodal transit system progresses.</p>			
17. Key Words DART Privatization Strategies Contracting Services Benefits Risks Planning Suburban Regional Transit Express Bus Demand-Responsive Bus Socioeconomic Characteristics Contract Procurement Private Sector		18. Distribution Statement - Report Availability Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 55	22. Price (NTIS) A04

1. Report No. UMTA-TX-08-8013-88-1	2. Government Accession No. (NTIS) PB 89-161707/AS	3. Recipient's Catalog No. UMTRIS/UMTA Section 8	
4. Title and Subtitle Turnkey Park & Ride Facility Investigation.		5. Report Date June 1987	6. Performing Organization Code
		8. Performing Organization Report No.	
7. Author(s) B. Goodman, C. Peck, J. Carrara, R. Schwartz		10. Grant or Project No. UMTA-TX-08-8013	
9. Performing Organization Name and Address The Goodman Corporation 1600 Smith Street, Suite 4450 Houston, Texas 77002		11. Contract No.	
		13. Type of Report and Period Covered Final Report Planning	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, S.W. Washington, D.C. 20590		14. Sponsoring Agency Code UMTA Region 2	
		15. Supplementary Notes	
16. Abstract <p>Between 1980-1985 the Metropolitan Transit Authority of Harris County (Houston METRO) pioneered an approach to capital improvement development called turnkey. By placing responsibility for construction improvements and other tasks in the hands of turnkey contractors, METRO was able to save substantial public dollars, significantly involve the private sector, and achieve implementation of Houston's extensive and successful park-and-ride network in the shortest time possible. The purpose of this research was to investigate the turnkey contracting method employed by Houston METRO and other agencies and determine its benefits. The study examines the turnkey method of contracting through examples, issues and discussions of future potential. It reviews the method by which ten METRO park-and-ride facilities were developed as well as the time and monetary benefits achieved. The turnkey method used to develop the Bay Area Park-and-Ride facility is discussed in detail. The turnkey method of procurement, policies, and practices at state and federal levels is examined as well as future turnkey contracting for park-and-ride development on a national basis. Turnkey contracting has proved to be a cost-effective and time saving approach to capital facility development for the private sector and for non-federally funded projects. To be of value to transit agencies, turnkey contracting calls for federal (UMTA) guidelines that are comprehensive and sensitive to the contractor's freedom.</p>			
17. Key Words Houston METRO Turnkey Contracting Case Studies Funding Capital Development Park-and-Ride Facility Planning Evaluation Nationwide Application UMTA Section 8 Regional Transit		18. Distribution Statement Document available to the Public through National Technical Information Service (NTIS), Springfield, Virginia 22161. - telephone 703/487-4650	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 113	22. Price (NTIS) A06

SECTION 9 REPORTS

01. Conventional Transportation

Technical Report Documentation Page

1. Report No. UMTA-TX-09-1086-89-1	2. Government Accession No. (NTIS) PB 90-195256/AS	3. Information System UMTRIS/UMTA SECTION 9	
4. Title and Subtitle Land Use Impacts of the Houston Transitway System: Summary Report.		5. Report Date October 1989	6. DOT Report Number
		8. Performing Organization Report No. Technical Report 1086-8F	
7. Author(s) E.J. Washington and R.W. Stokes		10. Grant or Project No. UMTA-TX-09-1086 Cross Ref.	
9. Performing Organization Name and Address Texas A&M University System Texas Transportation Institute College Station, Texas 77843		11. Contract No.	
		13. Type of Report and Period Covered Summary Report Planning	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code URO-6	
		15. Supplementary Notes Companion research study title: Land Use and Innovative Funding Impacts in a Permanent Busway/Transitway Park-And-Ride Transit System, March 1987.	
16. Abstract The Houston Metropolitan area is implementing one of the most extensive HOV priority treatment networks in the nation. More than 36 mi. of transitways (busways) are now operational and 59 mi. are currently underway. Ultimately, the commitment to transitways may result in 100 miles of these facilities in operation at a total capital cost of approximately \$700 million. The objectives of this 5-year study are to measure, analyze and evaluate land use impacts resulting from construction of transitways and park-and-ride facilities in the Houston area; and to evaluate the 'turnkey' procurement concept used by Houston Metro and determine its nationwide application for park-and-ride facility development. This report provides a summary of a 5-year study of the transportation and land use impacts resulting from the implementation of the extensive priority system of busways and park-and-ride facilities in Houston, Texas. Four HOV lanes with supporting park-and-ride facilities were placed in operation within the study time frame: Houston's North (I-45N), Katy (I-10W), Gulf (I-45S), and Northwest (US 290). This report focuses on the impacts of 3 of these HOVs: I-45N, I-45S, and I-10W. Preliminary results indicate that while the transportation impacts of the operational elements of the Houston transitway system have been substantial, no substantial land use impacts can be identified at this time. A more definitive assessment of land use impacts may not be possible until the system is fully operational and integrated into the community's total transportation system. This report contains a bibliography, a list of references and charts that layout the elements of the Houston transitway system.			
17. Key Words Houston Transitway System Busway Park-and-Ride Facilities HOV Lanes HOV Priority Network Bus Rapid Express Bus Land Use Economic Impact Freeway Corridor Development Turnkey Procurement		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 87	22. Price (NTIS) A05

09. Planning, Policy & Program Development

Technical Report Documentation Page

1. Report No. UMTA-ME-09-0005-89-1	2. Government Accession No. (NTIS) PB 90-184193/AS	3. Information System UMTRIS/UMTA Section 9	
4. Title and Subtitle Transportation Plan for the Shuttle Bus in Saco, Biddeford and old Orchard Beach, Maine.		5. Report Date November 1989	
		6. DOT Report Number	
7. Author's		8. Performing Organization Report No.	
9. Performing Organization Name and Address TAMS Consultants, Inc.* 38 Chauncey Street Boston, Massachusetts 02111		10. Grant or Project No. UMTA-ME-09-0005	
		11. Contract No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		13. Type of Report and Period Covered Planning Study	
		14. Sponsoring Agency Code UMTA Region 1	
15. Supplementary Notes *Sponsored by Maine Department of Transportation, and Southern Maine Regional Planning Commission.			
16. Abstract The purpose of this project was to assess current and future needs of the shuttle bus system and its users. Unlike other fixed-route public transportation systems in Maine, the shuttle bus has not experienced losses in ridership. It is delivering cost-effective services, operating with a minimum number of personnel, and paying-out below market rate wages to full-time drivers. The shuttle bus is a publicly-operated, fixed-route bus service operated jointly by 3 communities in Maine--Saco, Biddeford and Old Orchard Beach. The system operates through a memorandum of understanding between the 3 communities and has been in operation since 1978. This study consists of 4 parts: Evaluation of current services and operations; Development of a marketing program; Passenger survey and analysis; and a Five-Year Transportation Development Program. The shuttle bus system provides an important service to community residents. It is supported by farebox revenues and municipal funds. Although capital replacement needs are critical, it appears that the shuttle can meet vehicle replacement needs, maintain existing levels of service, and stabilize ridership and revenue with cost increases of about 5-8 percent annually. The study calls for an expanded effort to increase revenues through more aggressive marketing and increased federal/state fundings.			
17. Key Words Transportation Plan Shuttle Bus Fixed-Route Bus Needs Assessment Community Transit Regional Transit Five-Year Plan Marketing Plan Passenger Survey Demographics UMTA Section 9		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 67	22. Price (NTIS) A04

09. Planning, Policy & Program Development

Technical Report Documentation Page

1. Report No. UMTA-UGM-10-90-1	2. Government Accession No. (NTIS) PB90 219965/AS	3. Information System UMTRIS/UMTA Section 8, 9	
4. Title and Subtitle 1989 Statistical Summaries: Grant Assistance Program.		Report Date April 1990	
		6. DOT Report Number	
7. Author's Jo Tucci		8. Performing Organization Report No.	
9. Performing Organization Name and Address Urban Mass Transportation Administration Office of Capital and Formula Assistance U.S. Department of Transportation Washington, DC 20590		10. Grant or Project No. UMTA-UGM-10	
		11. Contract No.	
		13. Type of Report and Period Covered Statistical UMTA Grants Assistance	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration (UMTA) 400 Seventh Street, SW Washington, D.C. 20590		14. Sponsoring Agency Code UGM-10	
		15. Supplementary Notes	
16. Abstract <p>This report presents statistical summaries of UMTA's Grant Assistance Program. Grant assistance to the providers of local mass transportation began with the passage of the Urban Mass Transportation Act of 1964. A total of \$3.5 billion in grants was awarded during fiscal year 1989, raising the grand total of assistance to \$52.7 billion. Of the \$3.5 billion awarded, 74 percent was programmed for capital purposes; 24 percent for operating expenditures; and the remaining 2 percent for planning assistance. Excluding Stark-Harris grants, the largest urbanized areas with populations over 1 million received 79 percent of the total grant funds obligated during FY 1989. This Statistical Summaries report presents selected data on the distribution and use of various Formula and Discretionary program funds. These programs are the main source of Federal financial aid to urban and non-urban areas. Data was compiled from the capital, operating and planning assistance grants awarded in FY 1989 to transit authorities, states, metropolitan planning organizations, and other units of local governments. The statistical data charted-out in this report apply to the following UMTA programs: Programs Financed by the Mass Transit Account of Highway Trust Fund (Sections 3, 8, 16(b)(2), 9B); Programs Financed by General Funds (Sections 9, 18, Interstate Transfer); Programs Financed by the Highway Account of the Highway Trust Fund (FAUS); and Special Appropriation (Section 75, Stark-Harris).</p>			
17. Key Words UMTA Grants Assistance Program Formula Funds Discretionary Funds New Systems Ferry Boat Buses Vehicles Rural Transit Assistance Capital Grants Planning Operating		18. Document availability - Available to the public through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. -telephone 703/487-4650	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 95	22. Page (NTIS) A05

1. Report No. UMTA-CT-09-2097-90-1	2. Government Accession No. NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 9	
4. Title and Subtitle Inter-District Express Bus for Major Employers and Residential Concentrations		5. Report Date September 1990	6. Performing Organization Code
7. Author(s) Greater Bridgeport Regional Planning Agency		8. Performing Organization Report No.	
9. Performing Organization Name and Address Greater Bridgeport Regional Planning Agency 525 Water Street, Room 305 Bridgeport, Connecticut 06604-4902 (203) 366-5405		10. Work Unit No.	11. Contract or Grant No. CT-09-2097
12. Sponsoring Agency Name and Address Urban Mass Transportation Administration U.S. Department of Transportation Washington, D.C. 20590		13. Type of Report and Period Covered	
15. Supplementary Notes . See block no. 18 below for report availability information.		14. Sponsoring Agency Code UTS-30	
16. Abstract <p>This study identifies residential concentrations and major employment sites in the Greater Bridgeport Planning Region, and develops a network of express service with support of shuttle bus feeder system from two suburban towns to serve major employment corridors in southwestern Connecticut.</p> <p>The study focuses on coordination of existing public transportation systems' schedules with the proposed express routes. Recommendation resulted from the study pinpoints the interim pre-implementation actions of a comprehensive coordinated transit program.</p> <p>The ever-growing number of private automobile users (excluding car/van poolers) commuting back and forth to work on congested highways demands creative means to attract commuters to public transit.</p>			
17. Key Words Shuttle Bus Congested Highways Public Transit Private Automobile Users		18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, IL 60201; and University of California-Berkeley.	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 122	22. Price N/A

1. Report No. UMTA-TX-9-2004-89-1	2. Government Accession No. NON-NTIS REPORT	3. Recipient's Catalog No. UMTRIS/UMTA SECTION 9	
4. Title and Subtitle Transit Study Needs in Texas		5. Report Date September 1989	
		6. Performing Organization Code	
7. Author's: Robert W. Stokes		8. Performing Organization Report No. Technical Report 2004-1F	
9. Performing Organization Name and Address Texas Transportation Institute The Texas A&M University System College Station, Texas 77843-3135		10. Work Unit No.	
		11. Contract or Grant No. Study No. 2-11-89-2004	
		13. Type of Report and Period Covered Final - September 1988 September 1989	
12. Sponsoring Agency Name and Address Texas State Department of Highways and Public Transportation; Transportation Planning Division P. O. Box 5051 Austin, Texas 78763		14. Sponsoring Agency Code URO-6 - Blas Uribe	
		15. Supplementary Notes Research performed in cooperation with TX, UMTA. Technical Research Study Title: Development of a Public Transportation Technical Studies Agenda for Texas	
16. Abstract <p>This report presents the results of a survey conducted to identify transit study needs in Texas. The report summarizes the study needs identified from the survey, presents a general prioritization of those needs, and outlines a preliminary study agenda to address these study needs. The results of the survey indicate that the most pressing unmet transit study needs in Texas are in the following general areas: 1) Improving coordination and cooperation between local service providers and state and local transportation agencies; 2) Defining and quantifying the appropriate role(s) of transit in meeting the state's mobility needs; and 3) Developing innovative, broad-based funding strategies for the state's transit systems. The survey respondents also cited the need for studies concerning the development of training and continuing education programs for transit and transportation agency personnel, studies concerning the development and testing of technologies to comply with EPA clean air standards, human resources management, and transit service strategies for serving suburban and low density travel markets.</p>			
17. Key Words Suburban Funding Private Transportation Local Public MPO		18. Distribution Statement Report available to public through inter-library loan arrangement with transportation libraries at Northwestern University, Evanston, Ill. 60201; and University of California-Berkeley.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 44	22. Price

SECTION 3
RESOURCES AND PROGRAM

TITLE	PAGE NUMBER
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o UMTRIS Database Services	193-195
o Available Research Reports/Written Request	196-197
o UMTA Regional Offices	198-199

REGIONAL MOBILITY PROGRAM
OFFICE OF TECHNICAL ASSISTANCE AND SAFETY

Regional Mobility Program

OBJECTIVE

The Urban Mass Transportation Administration (UMTA) has developed a Technical Assistance Program to address the regional mobility problems found in most U.S. urban regions. The program is structured to undertake research and development of innovative solutions to the regional mobility problem, to enter into cooperative agreements with states, localities and non-profit organizations to demonstrate the feasibility of such innovations and to evaluate and report on the findings of such research and demonstrations.

BACKGROUND

The Regional Mobility Program is an outgrowth of the Suburban Mobility Initiatives (SMI) Program organized in early 1988. The SMI program was in response to the situation of ever increasing traffic congestion and decreasing transportation mobility in suburban areas. Traffic congestion does not, of course, occur only in suburban areas, nor even uniformly across metropolitan areas; it is a metropolitan and regional phenomenon that can occur in many locations and in various types of situations. Traffic congestion, both recurring and non-recurring, is common in the central business district and on links between suburban locations and the core area, and it is increasing on roads between suburban locations and between non-metropolitan and metropolitan counties. Because metropolitan traffic congestion can exist on urban highways, access roads, county roads, and local arterials around suburban business centers, it has become an inter-jurisdictional, regional problem.

The remedies to the overall regional mobility problem will be found to a significant degree in policies or institutions at the regional level. For example, the planning and implementation of most transportation facilities occurs at the regional or state level. Also, other potential remedies to the mobility problem such as development and marketing of the employer tax free transit subsidy voucher are best done at the regional level.

Strategies that deal with suburban congestion and mobility are also applicable, and in many cases identical, to those needed to address overall regional congestion and mobility. Therefore, many of the strategies employed in the SMI Program will also be used under the Regional Mobility Program.

A principal focus of the Regional Mobility Program will continue to be resolving or mitigating what is perhaps the most severe and pressing problem -- suburban traffic congestion. However, addressing the overall problems of congestion and mobility on a region-wide basis will also be undertaken.

The Regional Mobility Program involves technical assistance, outreach, research, demonstration, and evaluation efforts that will create a body of knowledge that, in turn, will assist private, local and state organizations to address their overall regional mobility concerns. While all the technical assistance and outreach Federal actions (cooperative agreements) obviously will have direct benefit to the recipients, the primary motivation of these actions is the testing and evaluation of innovative measures to address the regional mobility issue.

Efforts under the Program will be directed to five areas.

PROGRAM ELEMENTS

The Regional Mobility Initiative will include the following five focus areas: Transportation Demand Management, Innovative Transportation Services, Entrepreneurial Services, Competitive Services and Intelligent Vehicle Highway Systems (IVHS). These focus areas will be supported by such program reinforcement measures as technical assistance through the Private-Public Transportation Network (PPTN), documentation, evaluation and information dissemination, and other outreach efforts such as conferences and seminars. The specifics of each of the focus areas are described in the attachments.

For further information on the Regional Mobility Program, please write:

Mr. Walter Kulyk
Director, Office of Mobility Enhancement
Office of Technical Assistance and Safety
Urban Mass Transportation Administration
400 Seventh Street, S.W., Room 6431
Washington, D.C. 20590

Transportation Demand Management

ISSUE

The tremendous growth of the last decade in many urban areas has literally overwhelmed the highway systems of many communities. Local and state officials have been unable to keep up with the expansion of highway capacity because the increase in demand in some areas has been so rapid and because there have been insufficient financial resources to build or widen all the needed highways. Even if financial resources were to increase, as say from an increased gasoline tax, there would still be problems with building all of the desired peak period highway capacity. It is safe to say that there would be substantial community opposition to more highways that would result in dividing neighborhoods, generating more air pollution, or generating still more traffic.

Transportation Demand Management (TDM) is the name given to the process aimed at managing vehicular travel demand. TDM is important because it provides a potentially much lower cost alternative method to mitigate the problems resulting from too great demand for travel on overburdened transportation systems.

UMTA SUPPORT

There are a variety of TDM measures that have been implemented and have shown promise in reducing travel demand. Combinations of these measures have shown decreases in some cases in the modal share of single occupant vehicles of over 30%! UMTA would be interested in supporting innovative projects that provide additional cases that extend and expand the knowledge base.

Of all the TDM measures, parking control, pricing and management appears to be the most potent. Not so paradoxically, parking management is also the most difficult TDM measure to implement. UMTA is seeking local innovators who would be interested in developing and adopting parking management measures that favor ridesharers, or eliminate subsidies, or pass the true costs on to parkers. Other TDM measures that are of interest include ridesharing, alternative work schedules, telecommuting, HOV facilities, or novel combinations of all of these measures. Some TDM measures may include or overlap into Innovative Transportation Services.

ISSUE

Traditional transit service has had to face a much more difficult operating environment in the last decade. Vast new suburban areas have been developed that are literally hostile to traditional transit service. Origin-destination patterns are very dispersed and without well defined corridors of earlier times, travel distances are much greater, universal free parking is the rule, and street patterns and new development site design generally hinder efficient transit routing. It is no wonder that transit's share of the travel market in this environment is negligible.

Transportation services that have to compete in this environment must find an appropriate niche, be tailored to a distinct market, and/or be specially supported by an employer or a community of users or beneficiaries.

UMTA SUPPORT

A number of promising transportation strategies have nevertheless been identified that offer some advantage, or market niche, under the current situation. Some recently identified innovative measures include multi-operator transit subsidy vouchers, market-based transit fare pricing, guaranteed ride home services, and employer subsidized/provided services.

UMTA is seeking to support local innovators who would be interested in developing and implementing such transportation services or pricing/marketing arrangements. These may be in combination with or overlap TDM measures.

Entrepreneurial Services

ISSUE

From the beginning of our nation's history, transportation has been a major factor in stimulating social and economic growth. Mass transit has enabled our cities, towns and communities to grow and prosper. In the past decade, however, public transit authorities have struggled to be all things to all people. It has become evident that the traditional public transit provider may not effect the best means of serving some of the newly emerging transit markets. New suburban business centers, traffic congestion and the shift of population of new communities have created the need for innovative transit services.

UMTA SUPPORT

In order to address the need for these new services, UMTA has launched a program activity to stimulate the development of creative service provision to supplement existing public transit service. Under the Entrepreneurial Services program (ESP) activity area, UMTA encourages small and minority businesses to identify promising transportation markets and design innovative, self-sustaining services that can be operated independently.

The ESP activity area provides funding for planning and technical support to assist in project development and as limited seed capital for start-up costs. Funds can be made available to an entrepreneur through a grant to a public sponsor. Some of the market oriented transportation services that are encouraged include reverse commute service, inner-city circulation service, commuter express route service, demand response service, suburban circulation service, and rural inter-city service. Technical support for the planning and development of ESP projects is available through the Public Private Transportation Network.

In addition to providing useful and diversified transit services to areas that have received little attention from public transit agencies, new entrepreneurial services can create new business and job opportunities within the communities it serves. Unlike traditional public transit agencies, these private businesses require little government direction or subsidy.

ISSUE

For the last sixty years or so, monopolies sanctioned and regulated by local governments have operated most of the nation's urban mass transportation. The initial monopolies were private trolley and bus companies that gradually sank into bankruptcy as automobile ownership climbed and ridership decreased. They were replaced by publicly owned transit agencies receiving federal, state, and local subsidies. However, after two decades of public ownership, productivity has continued to decline while operating subsidies have grown rapidly.

There has been a growing conviction, stimulated by reduced federal subsidies for transit and new federal policy initiatives aimed at involving the private sector, that one of the solutions to the nation's transit problems lies in promoting competition in the provision of transit services. The potential benefits to cities of more competition include lower costs, improved efficiency, lower local subsidies, and improved services.

UMTA SUPPORT

The Competitive Services activity area seeks to evaluate the potential benefits of increased competition for transit services. Two different types of competitive services demonstrations have been implemented that have illustrated several of the advantages and some of the problems encountered when introducing competition in the public transit environment.

The first type of competitive services demonstration involves redesigning the institutional environment of the public transit operator so that all transportation services can be contracted out. These projects involve extensive planning and long term commitment at the local level to improving the quality and cost efficiency of transit service.

The second type of competitive services demonstration focuses on contracting out specific transit services. Typically routes that represent new service or routes that are scheduled for termination are contracted out to private operators.

These demonstrations have provided a great deal of experience with the contracting process that has been beneficial to many transit providers who are concerned about the cost and quality of service. These projects have also revealed aspects of competition as it relates to transit service provision that need to be addressed further. Additional projects may focus on the operational problems with contracted services, comparison of the cost and quality of contracted service versus publicly provided service, and the long term impact of labor agreements negotiated for contracted service.

Traveler Information Technology

ISSUE

Providing travelers with accurate, up-to-the-minute travel information is key to making more efficient use of our existing transportation infrastructure, one of the major principles underlying our National Transportation Policy. More efficient use of our transportation infrastructure can be obtained by information technology that assists travelers in planning itineraries, which provides for faster through-put of people and goods from origin to destination, which allows travelers to use other alternatives during periods of congestion, and which reduces accidents and injuries through prompt identification of unsafe conditions.

UMTA SUPPORT

Much of this information technology is being developed by FHWA and UMTA, as well as other countries, and is generally referred to as the Intelligent Vehicle Highway System (IVHS). UMTA's program for applying IVHS technology to transit and shared-ride modes includes the development of roadway-based Advanced Traffic Management Systems (ATMS) which give priority to high-occupancy vehicles in the traffic flow, and Advanced Traveler Information Systems (ATIS) which improve the quality and timeliness of information to travelers, such as warnings of delay and accidents. It also includes vehicle-specific systems which interact with the driver to provide Automatic Vehicle Control and Guidance and centralized Fleet Management and Control Systems which allow multiple vehicles to use the transportation system more effectively.

In addition to assisting in applying these IVHS approaches, UMTA's activity will seek to identify and evaluate other information technologies such as improved customer telephone information and cable T.V. systems for trip planning, interactive terminals and improved graphics at transit malls, bus shelters and major trip generators such as employment sites, as well as other innovative means of informing people of and attracting them to shared-ride services. UMTA will also assist the introduction and use of innovative information technology to support improved collections of user fees.

UMTA will offer grant assistance and technical assistance to those wishing to demonstrate or evaluate such innovative information systems, especially where they can reduce crowding or improve travel times in congested transportation corridors.

TRANSPORTATION
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NEWS

Transportation Progress Through Information

TRANSPORTATION RESEARCH BOARD
2101 Constitution Avenue, N.W., Washington, D.C. 20418 (202) 334-3251

AN UMTRIS PUBLICATION

Urban Transportation Abstracts is an annual publication that features abstracts and research project summaries on planning, designing, financing, constructing, operating, maintaining, managing and marketing all modes of public transit.

The abstracts is published by the Urban Mass Transportation Research Information Service (UMTRIS) of the Transportation Research Board, and sponsored by the Urban Mass Transportation Administration (UMTA).

Volume 8, 1989/90 publication of the Abstracts is now available for \$55.00. Please mail your request to:

Suzanne Crowther
Manager, UMTRIS
Transportation Research Board
National Research Council
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

UMTRIS - THE URBAN TRANSPORTATION DATABASE

Project Number: DC-06-0515

Project Title: Urban Mass Transportation Research Information Service (UMTRIS)

Managed & Operated by: Transportation Research Board (TRB)
National Academy of Sciences

TRB/UMTRIS Manager: Suzanne Crowther (202/334-3262)

UMTA/UMTRIS Manager: Marina Drancsak (202/366-9157)

Project Description. Founded in 1981 and funded by UMTA, UMTRIS is the TRB-administered computerized database on worldwide transportation research. It covers all phases of conventional, new and automated public transportation. UMTRIS features database storage/retrieval of abstracts of technical papers, journal articles, research reports, computer program descriptions, and statistical sources as well as state of the art bibliographies. Descriptions of ongoing research, especially research sponsored by UMTA is also included. UMTRIS offers the public nearly 20,000 information references to ongoing and completed research activities, and adds 2,000 new references annually to the database. In addition to serving as the central source of technical information to the public and private sectors, UMTRIS also serves as an institutional memory for UMTA projects and project reports. The database UMTRIS can be searched online by any computer with a modem through DIALOG Information Services File 63.

UMTRIS is supported by a National Network of Transportation Libraries (18). They serve both as repositories that house and make UMTA documents available to the general public, as well as document delivery centers that provide UMTRIS users with full text copies of citations retrieved from the database.

Twice a year UMTRIS publishes the Urban Transportation Abstracts which provide all the new references added to the database during the preceding six months. Each issue is divided into 5 sections: Abstracts of Reports and Journal Articles, Summaries of New and Ongoing Research, Source Index, Author/Investigator Index, and Retrieval Term Index. Summer and winter issues may be purchased individually or through an annual subscription fee of \$55.

UMTRIS provides computerized, online responses to transit inquiries. A computer-generated bibliography including abstract of articles and reports and summaries of new and ongoing research can be created for almost any subject related to mass transportation. UMTRIS is now providing a new, low-cost extension to its online capability. Because transportation professionals are often interested in the same current problems, UMTRIS has made available, at a nominal fee, copies of database literature searches that have been recently completed and may be of interest to other professionals.

- See reverse side for additional information.

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4. Directory of Urban Public Transportation Service, Fiscal Year 1991
5. National Workshop on Bus-Wheelchair Accessibility, Guideline Specifications for Wheelchair Lifts, May 1986
6. Procedures and Technical Methods for Transit Project Planning Review, Draft, September 1986
7. Public/Private Partnership Program, 1988
8. Transportation Revenue Forecasting Guide, June 1987.
9. The Potential for Supplemental Freight Services in Ferry Planning and Operations: A Case Study and Planning Guidelines, Final Report - August 1989
10. Best Practices In Specialized and Human Services Transportation Coordination, July 1989
11. National Transportation Strategic Planning Study, March 1990
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