

Tips for Planning and Operating Successful Shuttles and Circulators

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National Center for Transit Research at the University of South Florida



Today's Agenda

- Welcome and Introduction (5 min)
 - Donna Smallwood, MassRides/URS
- Polling Questions (5 min)
- Presentation (40 min)
 - Joel Volinski, Director, National Center for Transit Research at the University of South Florida
 - Wendy Silvani, Director, Emeryville (CA) TMA
- Q&A (30 min)
- Closing remarks



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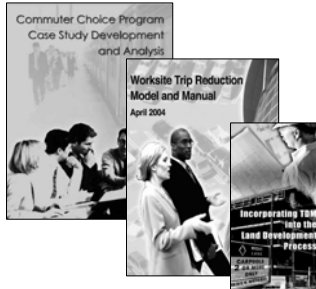


ACT International Conference
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For more info visit:

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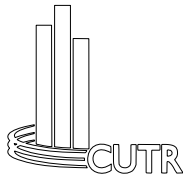


Identifying the Characteristics of Successful Local Transit Circulator Systems

National Center for Transit Research
University of South Florida

May 28, 2008
NCTR Netcast

Joel Volinski, Director



Overview

- Identify the key factors that determine the success of a community shuttle in primarily residential areas and circulators in downtowns
- Share the information gained with those areas that have or are thinking of implementing such systems

Brief History

- Broward's Community Bus Program started in 1991 due to financial stress
- Original intent was to save BCT money and provide a lifeline service for primarily the elderly when regular fixed route was ended
- The level of financial support from BCT was initially quite minimal to municipal partners but increased to \$20 per service hour

Defining Success

- Expands mobility for residents, employees, and students to get to all activities within each city
- Links to BCT regional routes and other city routes
- Services were rated 8.95 on a scale of 10 by passengers
- Helps minimize paratransit expenses and allows county services to operate more efficiently
- Frees parents from being chauffeurs, brings local businesses their employees and customers
- Almost free service, and very efficient in terms of cost per hour and per passenger

Defining Success in terms of Passengers per Hour

- Bottom line usually is - how many people are we carrying?
 - Between 5.5 and 30 passengers per hour, with an average of 14.2 per hour
- Review of demographics is very telling and consistent with fixed route experience
- Density of development/population trumps all other factors; income and car ownership are also very important

Correlation Matrix of Major Factors

● Pass.Rev.Hour/Income	-0.57
● Pass.Rev.Hour/Elderly	0.06
● Pass.Rev.Hour/Students	0.09
● Pass.Rev.Hour/Pop. Density	0.83
● PRH/Owner Occupied	-0.39
● PRH/Renter Occupied	0.036
● PRH/Owner Occupied No Car	0.69
● PRH/Renter Occupied No Car	0.38

Significance of Density

	Dania	Lauderhill
Median income	\$32,043	\$32,070
Elderly	15.7%	18.0%
Owner/no car	5.4%	9.9%
Frequency	40 minutes	45 minutes
Pop. Density	3,272	8,179
Pass. Per Hour	7.05	22

Other Factors Examined

- Management techniques
- Marketing techniques
- Market Segmentation
- Frequency and service span
- Fares

Management Techniques

- 5 of 8 systems contracted for service, while 3 performed with in-house staff
- There was no distinct difference in pass/per hour
- Contracted service is a little less expensive, gives instant expertise, possibly less liability, and non-performers are easier to remove
- In-house providers believe they have more quality control (hiring, training), greater consistency, and some occasional flexibility

Marketing Techniques

- **Local newspaper ads/press releases/stories**
- **Maps and schedules at city facilities, major stores, and on the city website**
- **Direct mail or as stuffers with other mail outs**
- **Ads on cable television/public access channels**
- **Using bus operators as ambassadors and best form of marketing (word of mouth)**
- **Using consistent branding, colors, and logos on equipment and promotional materials**
- **Community meetings**
- **Empty tennis ball cans!**

Market Segmentation

- Surprising diversity among riders
- Largest segment of riders might be students;
- Seniors use the service, but not in numbers as large as initially expected
- Circulator services are also used by a considerable number of service employees

Fares

- Only Margate and Miramar charged fares (\$.25) during the time of the study
- Even small fares can make a difference in total ridership (experience of the Miami Beach and Santa Barbara circulators)

Frequency and Span of Service

- Difficult to draw conclusions on impact of frequencies based on limited data
- Most service is provided once an hour, with the rest at 45 minute frequencies
- Also difficult to say greater span of service (total hours per day) is critical, though it appears to make a difference in most cases
- Providing service during both peak hours would appear to be beneficial

Findings

- Overall, local circulators are succeeding in terms of ridership (averaging 14 passengers per hour) and providing mobility to many different groups, and benefits to their cities
- The composition of the ridership is different than originally expected in many cases
- There are differences in performance
 - mostly due to density, income, and car ownership

Lessons Learned

- **Cover the peaks as much as possible (no later than 7 a.m. or earlier than 6:30 p.m.)**
- **More direct the better, but not critical**
- **More connections the better, but no guarantee of success**
- **More frequent the better, but not critical**
- **Service quality is important since word of mouth is how most people seem to find out about service**
- **Free fare vs. very low fare makes a big difference**
- **Prepare for kids!**

Issues with students

- **How to deal with energetic, rowdy, numerous, and sometimes destructive teenagers**
- **They have been known to steal seniors' groceries and generally intimidate others**
- **Pure numbers can overwhelm at certain stops**
- **Have cameras on the bus as well as strategic placement of supervisors or plain clothes police**
- **Get parents involved with correction and restitution**
- **Ban violators from riding for 90 days**

Interest in Downtown Circulators

- Attract and accommodate tourists
- Smart growth
 - Ease suburbanization
 - Promote downtown revitalization efforts
- Quality of life
 - Promote mobility for all
 - Congestion/pollution mitigation
 - Parking management
- Various cultural/economic benefits of increased street/pedestrian activity



Current Practices

- Tampa
- St. Petersburg
- Orlando (Lymmo)
- Chattanooga
- Miami Beach
- Eureka Springs
- Santa Barbara
- Charlotte
- Denver
- Los Angeles
- Portland
- Hartford
- Washington, DC
- Boise
- Dallas
- Louisville
- Memphis
- Oklahoma City
- Phoenix
- Reno



Circulator Vehicles

- Regular motorbus
- Alternative-fuel vehicles
- Rubber-tire trolleys
- Trolleys and streetcars



Typical Characteristics for Success

- High Density/Mixed Uses
- High Frequency (for short trips)
- Straight Routes (easy to understand)
- Little or no fare charged
- Connections with other transit service
- Be consistent with City Objectives
- Use good marketing-unique identity

Appearance and Marketing

- Attractive marketing campaign
 - Specific to circulator
 - Unique or innovative aesthetic
 - The ride is itself an experience
- Adequate Public Information
 - Pocket guides
 - Information at stops and stations
 - Real-time information



Alternative Funding Sources

- Special Assessment Districts
- Tax Increment Financing
- Parking Revenues
- Advertising/Sponsors
- City/County/Transit Agency Support
- Agreements with Universities
- State/Federal Grants
- Entertainment District Surcharge
- Developer Contributions

Current Evaluation Practices

- Focus on intent and circumstances
- Public involvement critical
- Regular evaluations
- Understand the target market
- Focus on customer service

Want to see what a very
successful Intra-local circulator
looks like?

VOILA!



Summary Conclusions

- Some key strategies
 - Target market
 - Appropriate service characteristics (frequency, hours, vehicle type)
 - Pricing
 - Connectivity, simplicity, and directness of route
 - Incorporation of business development concerns in the planning process
 - Identity, uniqueness

For the full reports go to:
www.nctr.usf.edu/publications.htm

*Identifying the Characteristics of Successful
Local Transit Circulator Systems*

*Strategies for Successful Intra-Urban
Circulator Systems*

Emery Go Round

Planning and Operating A Thriving Shuttle Service

Presented by Wendy Silvani,
Emeryville Transportation Management Association

May, 2008

Where's Emeryville??!

- At the eastern foot of the
Oakland/San Francisco Bay Bridge
 - At the crossroads of 3 major
highways; 1 mile from BART
 - In the middle of one of the "worst
commutes" in the Bay Area
 - A town 1.2 square miles in size
"divided" by both railroad lines and
Interstate 80
-



A Brief History

- Started in 1996 as a demonstration project
 - 3 private shuttles + City + State grant
 - TMA formed in 1998 to manage shuttle
 - 7 members including City
 - Grew to 14 members (mandatory & voluntary); reduced City contribution
 - PBID established in 2001;
 - PBID renewed in 2006 by property owners
-

The Numbers

Ridership

- ❑ 1997 – 243,000 boardings
- ❑ 2001 – 579,000 boardings
- ❑ 2007 – 1.1 million boardings
 - Over 4,500 per weekday
 - Over 1,600 per weekend

Emeryville's population

- ❑ Approximately 10,000 residents
 - ❑ Approximately 25,000 employees
 - ❑ Another 5,000 to 10,000+ shoppers and visitors
-



Our Customers

- 70-75% use in peak commute
 - 15-20% use mid-day
 - 5-7% use early and late (before 7am, after 8pm)
 - 94% in peak hour are going to work
 - 95% in peak use shuttle twice/week+
 - 97% are happy customers
 - 51% in mid-day are going to work
 - 48% in mid-day are going shopping, to school
 - 75% mid-day use shuttle twice/week+
-

Service Overview

Routes :	7 weekday routes 215 runs per day
Hours :	5:45 am to 10 pm
Frequency :	12 minutes in peak hour; 15 to 22 minutes mid-day 20 to 40 minutes early/late
Weekends:	2 routes
Hours:	9:30am to 9:30 pm on Sat 10:30am to 6:30pm on Sun
Frequency:	30 to 45 minutes

Service Overview

- 12 buses in our fleet (2 spare)
 - One van
 - ADA accessible
 - "Clean" – new, hybrid, and retrofitted to meet 2007 air quality regs in California!
 - 17 drivers (full time and part time)
 - No serious accidents in 10+ years
 - Own 8 buses; lease 4
-



Our Approach to Planning

Our Mission and Primary Focus

- ❑ We are a BART-based service providing DIRECT, FREQUENT links from MacArthur BART station to destinations in Emeryville for the benefit of PBID members.
 - ❑ Schedules, routes, hours, and frequency are driven by what PBID members want
 - ❑ Minimize travel time, wait times, connection time
 - ❑ Efficient use of demand/capacity
-



Our Approach to Planning

- Minimize delays from other modes and conditions (trains, speed bumps, stop lights)
 - To have buses where and when our customers want them
 - Use technology to serve our customers (NextBus, Traffic Signal Priority, Security Cameras)
-

NextBus link

<http://www.nextbus.com/predictor/publicMap.shtml?a=emery&r=Shellmound>

Shuttle Marketing

- ❑ Over 10,000 calls per month through NextBus at bus stops
 - ❑ Over 250 visits to our website; linkages to BART, City
 - ❑ Bold, easy to spot bus design
 - ❑ NextBus lobby signs in major buildings and hotels
 - ❑ Schedules at Courtesy/Information desks
-

Governance

Our PBID Structure requires that we provide a ***special benefit*** to our members!

We have 400+ PBID members (commercial property owners); 300 are "unduplicated"

Board has 7 largest contributors; 1 residential rep; 1 at-large business and 1 Chamber

Planning Framework

- What market segment(s) will be served; what are their needs?
 - How does it fit into our mission? Does it degrade service?
 - Potential users; frequency of their use
 - Does it compete with other, already-existing services? Where are the gaps? Can we better utilize what already exists?
 - How cost efficient is it?
-

Operational Challenges

- Emeryville's street network:
 - Long, industrial blocks
 - Dead-end streets; no "grid"
 - Limited potential for streets/sidewalk redesign for better access and safety
 - One main arterial is also a state highway
 - Highway 80 and railtracks divide
-

Operational Challenges

- Of some 5,000 housing units, fewer than 500 are single-family homes. These are in out-of-our corridor areas
 - Limited major streets east/west or north/south or crosstown
 - We are “free” to users; AC Transit is not
 - Residential expectations and politics
 - Growing demands as Emeryville becomes 24/7 city that changes our “mission”
 - “Peak” service capacity v. non-peak
-

Lessons Learned

- Know your customers and plan accordingly: type of bus, routes, hours, stops planned around what customers need and other local conditions. KISS!
 - Dependability: service is having drivers AND buses! The importance of good maintenance; reliability
 - Flexibility as the community changes
 - Branding – make it unique (and personal)!
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Emeryville TMA
www.emerygoround.com

Wendy Silvani
Executive Director
510-465-0724
Email: wlspr@aol.com

1300 67th Street
Emeryville, CA 94608
