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# LOS ANGELES REGIONAL SMART TRANSIT STRATEGIES



July 19, 2001

Presented by John C. Cox, Jr.

**Southern California Association of Governments**



# Transit Market

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## 1999 ANNUAL UNLINKED TRANSIT TRIPS

<input type="checkbox"/> BUS	543,045,171
<input type="checkbox"/> DEMAND RESPONSE	3,184,091
<input type="checkbox"/> LIGHT RAIL	13,287,142
<input type="checkbox"/> HEAVY RAIL	25,771,346
<input type="checkbox"/> COMMUTER RAIL	6,734,076
<input type="checkbox"/> JITNEY	105,705
<input type="checkbox"/> <u>FERRY BOAT</u>	<u>11,930</u>
<b>TOTAL</b>	<b>592,239,460</b>

# Transit Market

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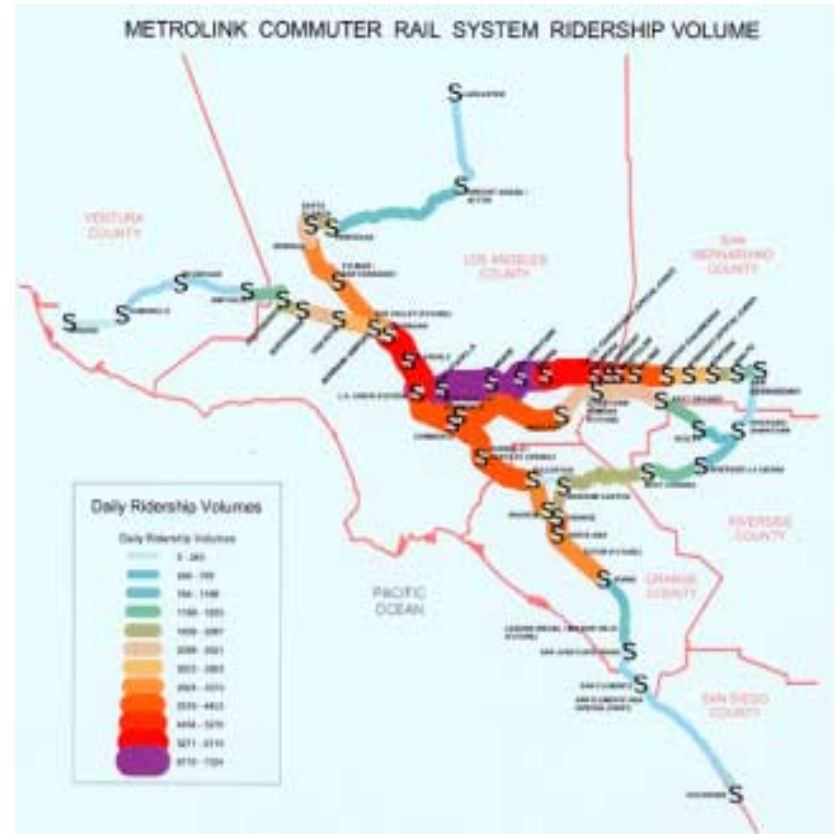
## 1999 ANNUAL UNLINKED TRANSIT TRIPS

<input type="checkbox"/> MTA Bus	359,571,659
<input type="checkbox"/> MTA Rail	39,058,488
<input type="checkbox"/> OCTA	54,929,483
<input type="checkbox"/> Long Beach	27,302,473
<input type="checkbox"/> Santa Monica	21,760,483
<input type="checkbox"/> OMNITRANS	15,183,664
<input type="checkbox"/> Foothill	13,736,150
<input type="checkbox"/> Metrolink Rail	6,734,076



# Metrolink Market

## Commuter Rail Ridership Volume



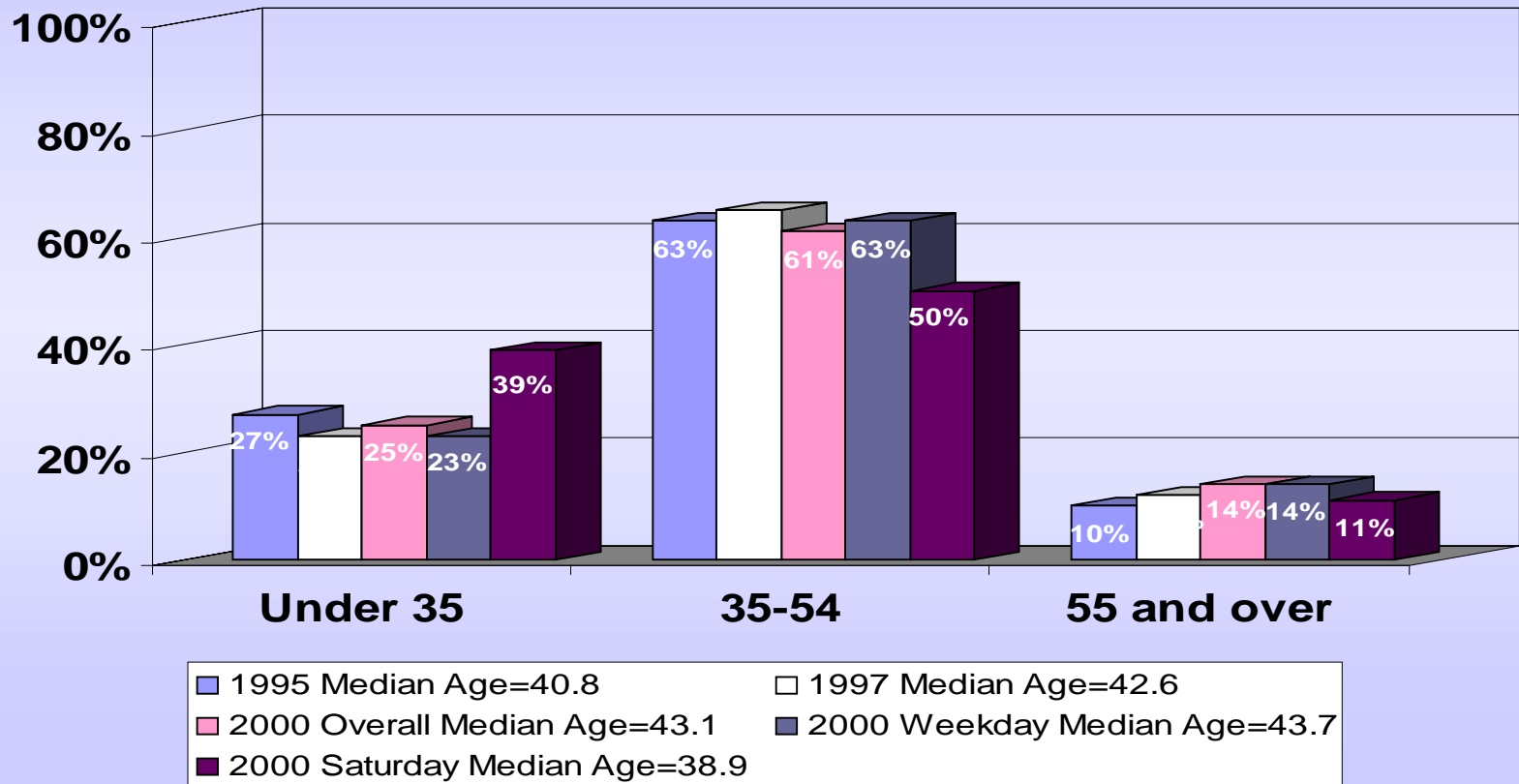
# Metrolink Market

## Work Center Locations



# Metrolink Market

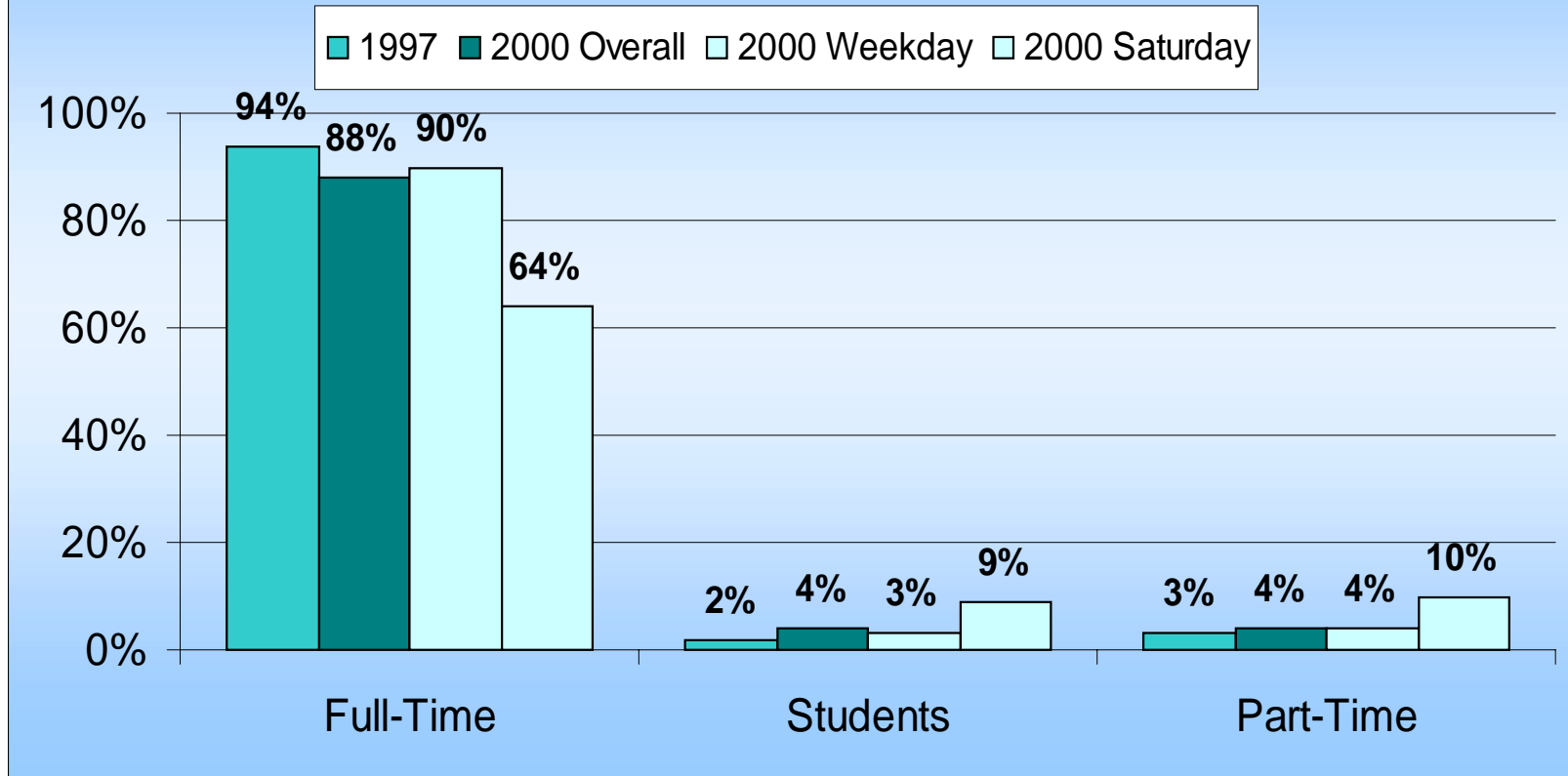
Figure 4  
Age of Metrolink Riders



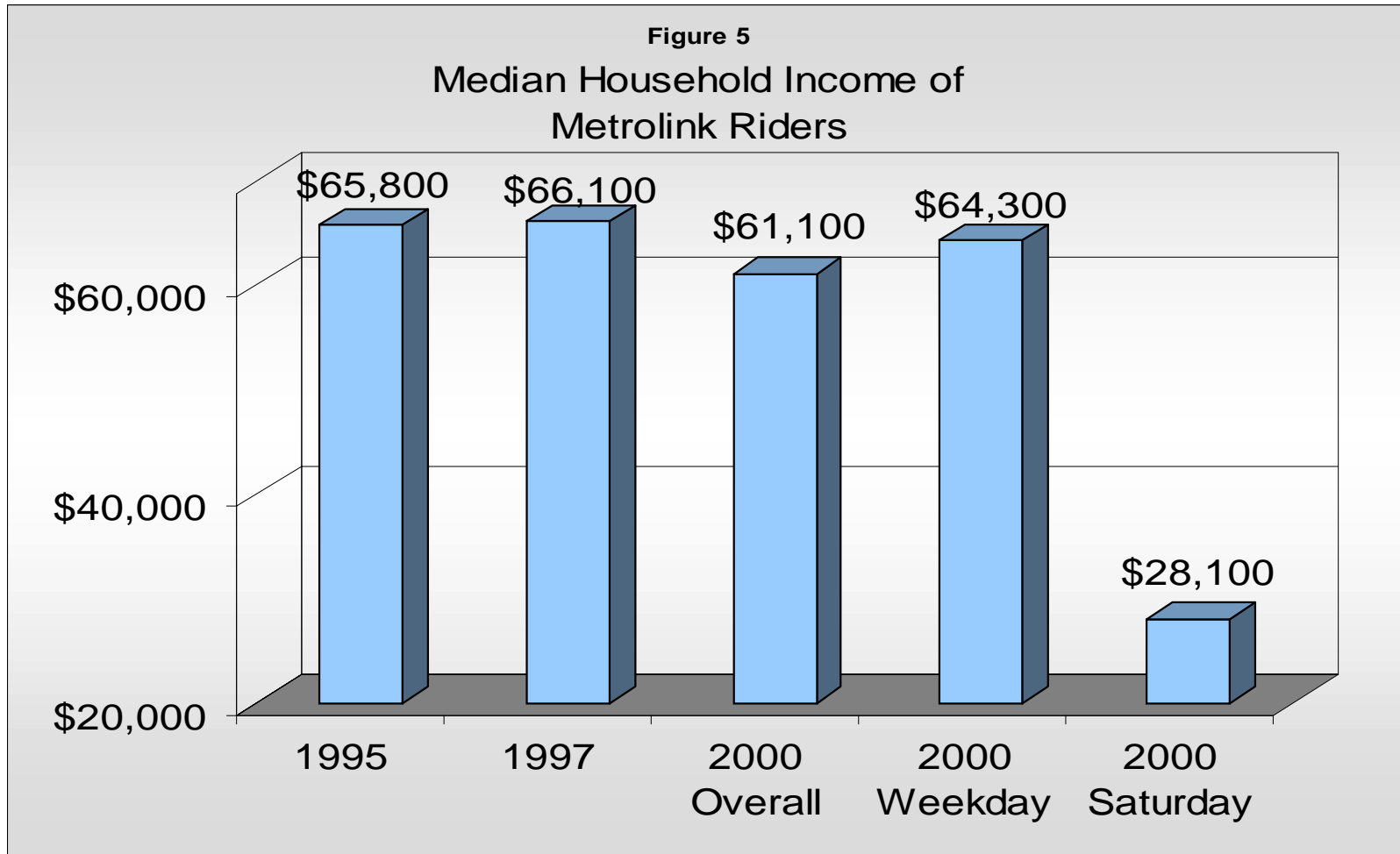
# Metrolink Market

Figure 6

## Employment Status of Metrolink Riders



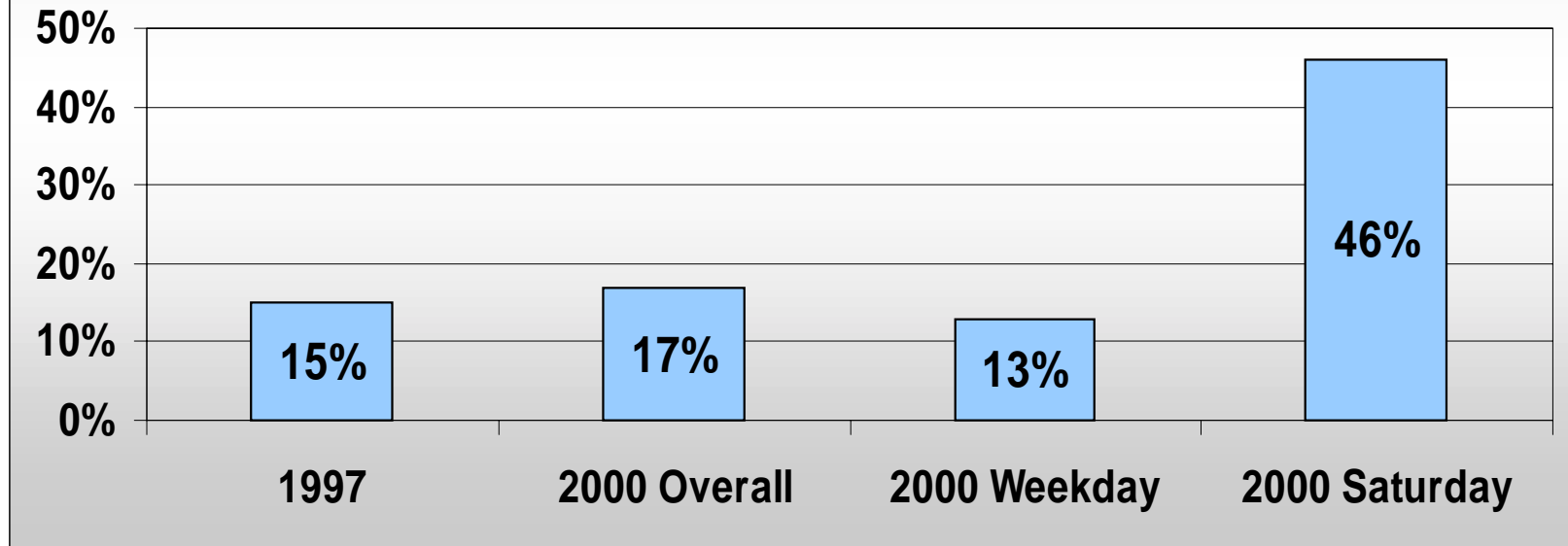
# Metrolink Market



# Metrolink Market

Figure 13

## Transit Dependence (No Automobile Available)



# Regional Market

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## Regional Growth

- ❑ **Southern California Population**
  - **16 million in 2001**
  - **37.5% Increase to 22 million by 2020**
- ❑ **Regional Airport Demand**
  - **85% increase to 154 million air passengers.**
- ❑ **Nine fold increase in congestion.**

# SCAG Smart Transit Strategies

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## High Speed Rail Technologies



- ❑ New opportunities to link Southern California
- ❑ Requires a change in our view of transit.

## Smart Shuttle Technology



- ❑ A new Community Based Transit approach
- ❑ Create a truly seamless multi-modal transit system.

## SCAG PROPOSAL



- Vehicles can reach 240 miles per hour speed
- Vehicles ride on a cushion of air suspended 3/8 of an inch above the elevated guideway

## SCAG PROPOSAL

- ❑ A initial 92 mile MagLev High Speed Rail system
- ❑ Connection to LAX, Union Station, Ontario Airport, Riverside, and March Field.
- ❑ Eventual network covers over 240 miles of lines in Southern California
- ❑ Potential connection to San Diego, Northern California, and Las Vegas



## SCAG PROPOSAL

- ❑ Construction by a Public Private Partnership
- ❑ \$950 Million Federal funding
- ❑ Fair Box Revenues cover capital/operating costs
- ❑ \$6 Billion Capital Cost
- ❑ 118,000 rider trips per day



# MagLev to Shuttles

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## SCAG PROPOSAL

### ☐ MagLev Access

- Light Rail
- Busways
- Commuter Rail
- Local supporting transit



### ☐ Community Based Smart Shuttle Systems

- Innovative low cost services
- Attract new passengers and meet a need



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# Smart Shuttles Community Based Transit

**Lessons  
Learned**



# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT

- ❑ **50+ Cities currently operate fixed route or route deviation third tier shuttles on approximately 100 routes**
- ❑ **23 cities operate General Public “demand response” shuttle services and dial-a-ride**
- ❑ **Costs and performance on some systems is competitive with traditional transit operation based upon preliminary analysis.**

# Lessons Learned

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## **COMMUNITY BASED/SMART TRANSIT**

- ☐ Four entrepreneurial City of Los Angeles Smart Shuttle Demonstrations are competitive in performance with traditional transit services now subsidized through traditional formula funding mechanisms.**

# Lessons Learned

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## **COMMUNITY BASED/SMART TRANSIT**

- ❑ High Density Business District Services - Wilshire Smart Shuttle, Glendale Bee Line**
- ❑ Suburban Services - Duarte Shuttle, El Monte Shuttle, or the City of Camarillo.**
- ❑ Tourist Services - Hollywood Dash, the Santa Monica Tide or Hermosa Beach Wave, or the City of Ojai.**
- ❑ Intermodal Connector Services - Burbank Airport Metrolink Shuttles**

# Lessons Learned

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## **COMMUNITY BASED/SMART TRANSIT**

- ❑ Provides community connectivity to shopping and community services**
- ❑ Serve as feeders to local and regional “line haul” transit service, including a number of services connecting to Metrorail and Metrolink rail services, and in some cases do both.**

# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT

- Services from the Glendale Bee Line and the Cal State Northridge Smart Shuttle connection to Metrolink**
- Mid Wilshire Smart Shuttle connecting to the Red Line**
- Green Line Shuttles to LAX**
- All show the potential to provide such connection at low costs through innovative contracting or franchise opportunities.**

# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT

- Some services are Fare Free
- Others charge small fares
- Recent “franchise” type “partnerships” are designed to test market support and charge a variety of “market based” prices.
- Subsidies are used for “publicly” operated or franchised Smart Shuttle services

# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT

- ❑ **Costs - \$30.00 to \$70.00 per hour**
- ❑ **“Fixed Route” costs - \$55.00 and \$97.00 per hour**
- ❑ **Various Service Contracting Options**
  - **Turnkey contracts**
  - **In-house services**
  - **Innovative Smart Shuttle “Franchises”**
  - **Other combinations**

# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT

- ❑ **Recent Smart Shuttle “Public/Private”  
Entrepreneurial Demonstrations have farebox  
revenues that cover up to 75% of operating costs  
under favorable ridership conditions**

# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT

- The auto and public transit modes are used to gain access to and from Metrolink stations at both the origin and destination ends of the trip
- 70% (69.7%) drive alone from home to station
- 20.5% drive with others
- 6.0% of Metrolink riders use public transit to access the station.

# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT

### Home-Based Trip Destination Trips

- 60.5% use public transportation to get from the station to their destination.**
- 10.8% drive with others**
- 12.7% walk.**
- 70.6% use public transportation to get from LA Union station to their ultimate destination.**

# Lessons Learned

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## **COMMUNITY BASED/SMART TRANSIT**

- ❑ As the demand for High Speed Rail services grows the need for access to and from stations will grow.**
- ❑ Smart Shuttles (e.g. Super Shuttle, etal) currently are a major means of Airport Access.**
- ❑ It could be expected that at a sufficient level of demand Smart Shuttle's will also fill an increasing demand at Rail Stations.**

# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT

- ❑ Needs to be part of a system
- ❑ Support a multi-modal approach
- ❑ Provide a “seamless” connection



# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT

- ❑ One size doesn't fit all!
- ❑ Quality begets quality!
- ❑ Appearance Counts!
- ❑ Goals and Management Matter!



# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT

**One size doesn't fit all!**

- ❑ What works in Old Pasadena may not work in Camarillo or the Morongo Valley.**
- ❑ The measure of efficiency will vary greatly based upon community needs and goals.**
- ❑ Even a higher cost community Shuttle to the Disabilities Center may cost less than a Dial-a-ride trip, yet may be more cost effective for compliance with the Americans with Disabilities Act.**

# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT

Quality begets quality!

- ❑ **Successful performing services share strong operational, management, and marketing elements**
  - **Frequent reliable service**
  - **Focused and goal oriented management and policies**
  - **Strong identity with community served**

# Lessons Learned

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## COMMUNITY BASED/SMART TRANSIT Technology

- ❑ Can Improve Performance and Customer Service



- ❑ Doesn't Substitute for Quality Service

# Smart Transit Strategies

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## Smart Card Technologies Support Ease of Consumer Use



# Smart Transit Strategies

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## Smart Transit ITS Investments Integrate with Smart Streets/Highways



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