

# Rideshare and TDM

## Part of the Transportation System

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# Ridesharing

- A large factor in Transportation Demand Management
- Ridesharing - sharing a ride - for commute trips appears primarily in the form as carpooling and vanpooling.
- 1910's – Hitching a ride with spread of personal auto
- 1940's – Official “carpool clubs” during WWII
- 1970's – Employee rideshare due to energy crises
- 1980's – Funding for Carpool and Vanpool Projects
- 1990's – Reliable ridesharing systems
- 2000's – Technology-enabled ridematching
- Current – Confusing usage of rideshare terminology

# Ridesharing Technology

- Rideshare programs (local governments, organizations, employers) often employ a ridematching software
  - RidePro, RideShark, RideAmigos, etc.
- Consumers often use web- and app-based resources to help with ridesharing
  - Craigslist
  - iCarpool
  - Ridejoy
  - Carpoolworld
  - Ridescout
  - Carma
  - Zimride
  - Hitch

# Ridesharing Support

- Rideshare programs often rely upon supporting functions:
  - Ridematching systems
  - Emergency ride home programs
  - Preferred parking options
  - HOV / HOT lane access
  - Favorable employer policies
    - Scheduling accommodations
    - On-time departure commitments
    - Transit benefits
  - Park and pool lots
  - Incentive programs
  - Availability of bikeshare, carshare, transit, etc.
  - On-site consumer services

# Houston Regional Vanpool History

- 1970's – Employer-sponsored vanpools prosper
- 1980's – METRO opens “transit-way” to vanpools
- 1980's – METRO offers “ridematching” to find riders
- 1990's – METRO adds financial incentive for riders
- 1990's – H-GAC (MPO) launches TDM initiatives
- 1996 – CMAQ funding makes vanpool regional
- 2004 – H-GAC launches miniPOOL project
- 2007 – METROVan and miniPOOL consolidated
- 2008 – STAR is new Regional Vanpool brand
- 2009 – STAR promotes new business model

# METRO STAR Vanpool

- Unique public-private partnership of FHWA, TxDOT, H-GAC, METRO, private contractors, private vehicle providers and employers
- Regional program covers 8-county Houston-Galveston-Brazoria commute to work trips
- 80/20 FHWA/Local (METRO) funding for vehicle capital (STP) and program marketing (CMAQ) (past FTA JARC)
- Employer (destination) based outreach and marketing
- Groups of 5-15 individuals sharing costs and responsibility in STAR-provided vehicle
- Supported with vehicle arrangements, ridematching, emergency ride home, and customer assistance

# METRO STAR Vanpool

- Urban, suburban and rural worksites can benefit from vanpool
  - Over 90% of STAR routes serve areas outside the CBD
  - Typical commutes via STAR are over 25 miles one-way
  - Parking demand is a significant influencer for employers:
    - Harris County Appraisal District reduced employee parking 10%
    - Michael E. DeBakey VA Medical Center and Regional office reduced parking demand by over 600 spaces
  - Corporate relocations motivate employers as retention tool:
    - Baker Hughes employees formed more than 50 vanpool routes in consolidating to their North Houston facility
    - ExxonMobil implemented commuter choice transit benefits in support of employee migration to new campus in Spring
  - Attractiveness of employee benefits affect hiring and retention
    - Tax advantages of transit benefits are win-win for employers and staff



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# TDM in the H-GAC Region

- Transit Services
- HOV/HOT/Managed Lanes
- METRO STAR Regional Vanpool
- NuRide Incentives for Transit, Rideshare, Telework, Bike/Ped
- Commute Solutions Telework
- Alternative Work Arrangements (flex-time)
- Transit Pilot Projects Program
- Carsharing and Bikesharing
- Real-Time Ridematching





# Commute Solutions 2013 Impacts

- Transit Usage (all providers)
  - 541.5 million passenger miles traveled
- METRO STAR Regional Vanpool
  - 60,753,527 vehicle miles traveled reduction
  - 51.0 tons NOx emissions reduction
- NuRide Carpool Incentives
  - 49,278,824 vehicle miles traveled reduction
  - 25.8 tons NOx emissions reduction
- Commute Solutions Telework
  - 8,242,810 vehicle miles traveled reduction
  - 1,800 teleworkers in supported programs

# TDM in the Transportation System

- Transportation Demand Management - taking fewer trips and choosing wisely how to take the ones we do
- The Clean Air Act originally included mandatory employee trip reduction rules, repealed in 1977
- An expansion of local trip reduction rules and TDM ordinances is now occurring across the nation
- IRS Code provides for transit benefits for employees
- FHWA, FTA and EPA have federal funds for TDM
- Local and regional governments and districts support TDM initiatives
- Planning and development guidelines support TDM
- Employers support TDM programs in many places.



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# Planning Resources – CUTR/NCTR

- National Center for Transportation Research at the Center for Urban Transportation Research, University of South Florida ([www.nctr.usf.edu](http://www.nctr.usf.edu); [www.cutr.usf.edu](http://www.cutr.usf.edu))
- Research into TDM practices and impacts, including:
  - Worksite Trip Reduction Model & Manual – predicts extent incentives, disincentives and programs will impact worksite trips
  - An Analysis of TDM Impacts on a Corridor Segment – found the correlation of TDM policies with reduction in congestion, time delay and fuel consumption on I-5 segment in Seattle
  - Trip Reduction Impacts of Mobility Management Strategies (“TRIMMS”) available at <http://trimms.com>



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# Planning Resources – TSRC

- Transportation Sustainability Research Center, University of California at Berkeley ([www.tsrc.berkeley.edu](http://www.tsrc.berkeley.edu))
- Research into Rideshare and Shared Use Mobility, including:
  - Shared Use Mobility Summit – the first national summit on the convergence of shared use options including transit, carshare, bikeshare, and rideshare, and resulting report on the current state of shared use
  - Ridesharing in North America – Past, Present & Future – a short history of ridesharing to the present with current influences that will affect the future



# Planning Resources – CNT

- The Center for Neighborhood Technology ([www.cnt.org](http://www.cnt.org))
- Research into relationships with land use, transit and walk access for parking:
  - Locations that support transportation needs without a personal auto are increasingly attractive
  - Parking pricing and supply policies will impact actual parking per unit
- For more on this study, see the Feb 2013 ITE Journal



# Implementation Resources – ACT

- The Association for Commuter Transportation ([actweb.org](http://actweb.org)) - an international trade association and leading advocate for commuter transportation and transportation demand management
  - Public TDM Programs
  - TDM Service Providers
  - TDM Consultants
  - Metropolitan Planning Organizations
  - Transportation Management Associations
  - Management Districts
  - Universities
  - Local Governments



# Implementation Resources – ACT

- Association members in Texas:
  - Capital Area Metropolitan Planning Organization
  - Car2go N.A., LLC
  - Central Texas Regional Mobility Authority
  - Commute Solutions Coalition
  - Dallas Area Rapid Transit
  - Energy Corridor District
  - Enterprise Rideshare
  - Houston-Galveston Area Council
  - Metropolitan Transit Authority of Harris County Texas
  - Movability Austin
  - North Central Texas Council of Governments
  - NuRide
  - Rice University
  - Texas A&M University
  - Texas Tech University
  - TREK Transportation Management Organization
  - 2Plus of Texas, Inc.
  - University of Texas at Austin
  - vRide

# Questions?

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