Real-time Ridematching:
Historic, Heuristic and Hysteric

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Overview

1. Definition of TDM
2. Evolution of Ridesharing in U.S.
3. Rise of personal ICT and TDM
4. Myths about carpooling
5. What are the barriers to adoption?
6. What are the opportunities?
Is It Our Birthright to Drive?
Managing travel demand is about providing travelers, regardless of whether they drive alone, with *travel choices*, such as work *location, route, time of travel and mode.* In the broadest sense, “demand management is defined as providing travelers with effective choices to improve travel reliability.”

FHWA 2003
Why Do I Care?

- Been at this for over 25 years, since “Future of the Automobile”
- Seen a lot of change, successes and failures
- Witnessed a lot of “fads” that diminish acceptance of demand management
- My specialization is impact evaluation
- **If** it is cost effective in reducing car use, I am **ALL FOR IT**
- **But**, jury is still out on dynamic or real-time rides
- This workshop is a great step toward legitimacy
History of TDM in U.S. – 1940s

TDM and War Production

1942 Regulation Requiring Ridesharing Plans at War Production Plants To Include:

- Commuting survey of employees
- Submission of a carpool plan
- Establishment of carpool matching board
- Encouragement of public transit
History of TDM in U.S. – 1970s

Ridesharing and the Arab Oil Embargo

- 1974 Emergency Highway Energy Conservation Act
- Allowed for use of highway funds to demonstrate carpool programs
- DOT/DOE developed computerized ridematching
- WBZ radio in Boston introduced Commuter `Computer ridematching – 0.7 point mode shift
- Evolution from general public to employer focus
History of TDM in U.S. – 2000

TDM to Address Traffic Congestion

- Vanpools heavily subsidized and qualify for transit funding
- High Occupancy Vehicle lanes being converted to High Occupancy Toll or Managed Lanes
- Telecommuting popular among employees
- New generation of ridematching systems
Future of TDM Policy in U.S.

Back to Energy Conservation...New Normal...

or an Integral Part of Managing and Operating the Transportation System?

What is the role of entrepreneurs?
Rise of ICT in TDM

- "Instant, on-line ridematching"
- 511 - Multi-modal real-time traveler information
- Pre-trip and near-trip information
- Information on PCs, PDAs, phones and in-vehicle navigation devices
- Dynamic or real-time ridematching
Current Status

- Most commute management programs re-evaluating ridematching needs/systems
- General feeling is the traditional systems are out-moded and new systems are not proven or focus on narrow niche
- Some programs are developing new generation systems from scratch
- System developers are not travel behaviorists
Carpooling Myths and Realities:

Myth: Carpooling is dwindling, archaic
Reality: #1 mode of all travel; #2 for work trips

Myth: Carpools are only formed among family members (fampools)
Reality: More than half in LA are co-workers; in Houston more coworkers carpool; families use commuter services as well
Carpool Myths

Carpooling Myths and Realities:

Myth: People should be doing it anyway!
Reality: incentives are the greatest inducement

Myth: Public transit is the way of the future
Reality: San Diego carries more commuters in vanpools on I-15 than all PT services combined; Houston has 800 vanpools with 10,000 riders
Carpool Myths

Carpooling Myths and Realities:

Myth: Three and four person carpools easy to form; just fill the empty seats

Reality: The third and fourth carpooler is exponentially more difficult to place
What are the barriers to real-time ridesharing?

- Lack of critical mass of potential travelers for quality matches and for profitable systems
- Only a certain market segment is ready and willing to use technology
- On their own, real-time ridematches are mostly discretionary, occasional trips
- Culturally, we don’t trust strangers
- Cell phone use car is illegal in California
What are the issues with real-time ridesharing?

- Perhaps greatest of all, from public policy standpoint, is real-time ridesharing really reducing congestion, energy consumption and air pollution?

- Is it substituting one sustainable mode for another, or worse to a less sustainable mode? (we need independent evaluation of impacts)

- Is functional objective to maximize database or reduce car trips?

- Are we creating unrealistic expectations?
What are the opportunities for real-time ridesharing?

- People changed behavior during high gas prices to save money
- Instantaneous feedback is demanded by many people
- There is a unique niche market for real-time ridematching; referrals are key
- Private sector willing to develop new products
- Traditional outreach and real-time services are both needed for maximum success
Challenges for Workshop

- Temper g-whiz reaction to technology with reality of human behavior and attitudes
- Avoid old guard vs. young turks
- Find common ground in terminology and concepts among all disciplines
- Build on history, use heuristic approach and don’t get caught up in hysterics
Closing

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