Introduction Transportation Policy Issues

Topics

- Roadway Capacity vs. Transportation System Efficiency
- Travel Behavior and Management of the Transportation System
- Parking

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Roadway Capacity
vs
Transportation System Efficiency

- How to determine the composition of our transportation system

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Basis for Decision Making

BASIC DILEMMA

- Peak hour roadway capacity to maintain a flow of traffic

VERSUS

- Modal balance through multimodal measures of system effectiveness

Roadway Capacity Standards

- Intersection Level of Service
  - Measure of delay to drivers
  - Performance standard
  - Environmental threshold
- City Streets
  - LOS “D”
- CMP Regionally Significant roadways
  - LOS E

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Policy Effect of LOS Standards

- Maintain Traffic Flow
- Infill deterrent
- Encouragement of sprawl
- No multimodal consideration

Multimodal Measures of Effectiveness (MMOE)

- Bike, Pedestrian, Transit, Auto LOS
- Corresponding Measurement Requirements, Analysis
- Holistic/Big Picture - Daily Traffic, Multimodal Conditions

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Policy Impacts of MMOE

- Lessens infill/TOD/compact barrier
- Credits multimodal conditions
- Accepted techniques
- Calculates values to all roadway users

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Sunnyvale Multimodal Practice

- Intersection LOS
- Signal Timing
- Traffic Control Analysis
- Monitoring, Planning, Improvements for Alternative Transportation
  - Independent modal consideration

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Practical Impacts of MMOE

- Land development flexibility
- Slight potential to increase multimodal improvements
- De-emphasis of roadway capacity
- Intensive City administration

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Policy Proposal

- Move to Multimodal Measures of Effectiveness (MMOE)

Travel Behavior and Management of the Transportation System

Additional Considerations for Transportation Mode Policy

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Travel Behavior

- Most People Like to Drive
- Auto Dominant Despite Local Efforts
- High Elasticity of SOV Use
- "Driving" factor is wealth
  - not density, transit accessibility, gas taxes or environmental attitudes

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Travel Choices

- Avoiding Negative Conditions
  - Walking vs. Horse
  - Model T vs. Big ol' Chrysler
  - Trolleys vs. Freeways
- Variables
  - Technology
  - Economics
  - Sustainability
- Larger Social Change/Choices Typically Override Local Control

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Elasticity of Behavioral Change

- What are thresholds?
- Context for Local Policy-Making

Transit Behavior

- Santa Clara County Transit Use
  - 2.7%
- Ineffective Mobility Tool
  - 700% increase in investment since 1960's
    - no mode split effect
  - 84% Current Investment on Transit
    - little effect

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Transit Market

- Mostly Transit Dependent, Low Income
- 70% + Population Unlikely to Use Transit

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Transit Use Elasticity

- General rules
  - Fare Pricing:
    - 10% fare decrease = 4% ridership increase
  - Service frequency:
    - Doubling service = 50% ridership increase
  - Transit proximity:
    - 10% decrease = 7% decline
  - Transit vs. Drive Alone
    - 3 transit trips = 1 auto trip

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Bike and Ped Behavior

- Low mode split – 2% walk, 1% bike
- Comprehensive networks:
  - Double use – but still low

Effects of Congestion in Sunnyvale

- Delays to Commerce
- Inconvenience
- Community Perceptions
- Traffic Safety
- Air Quality
- Serious after Total Breakdown
  - Gridlock, Corridor Failure
- Sunnyvale Breakdown Potential
  - 2 locations

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Local vs. Regional Travel

- 40%+ is Regional
- How to Influence?

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Potential Actions for Modal Balancing

City Influence

Bike and Ped

- Comprehensive Bikeway and Sidewalk Networks
- Enhanced Facilities
- Programmatic Promotion
- Land Use Actions to Encourage Reduced Trip Lengths

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Transit

- VTA Service Standards Assessment
- Density, Support Near Transit Hubs
- El Camino Real Bus Rapid Transit, Light Rail Improvements

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Transportation Demand Management

- Target-Based Conditions of Development
- Aggressive Goals
- Annual Reporting
  - Ability to Monitor and Enforce
- Residential TDM Policy

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Parking

How do we want transportation and land use to interface?

Parking's Importance

- Dominant interface between transportation and land use
- Interface between major transit corridors and other modes
- Powerful determinant of travel behavior/land utilization

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Basic Parking Dilemma

- How to balance:
  - Access
  - Land utilization
  - Effect of land economics
  - Urban design
  - Multi-modalism

Parking Policy Approaches

- Traditional
  - generous free parking based on questionable research
- Active
  - demand based, data and management intensive

Tailoring Supply Policy to Local Conditions

- Vary for different neighborhoods
- Base on demand
- Reconcile with community vision and active management

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Active Parking Management Strategies

- Metropolitan Transportation Commission *(handout)*
- Institute of Transportation Engineers *(handout)*
- Create Places and Demand First

Parking Management Land Use Opportunities

- Vibrant, Compact Neighborhoods Near Transit
- Affordable Housing
- Area Specific Requirements, Flexible Requirements
- Senior Housing
- Walkable, Bikeable Districts
- TOD, Density Bonus Conditions of Development

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Parking Management Programmatic Opportunities

- Adoption of Parking Maximums
  - "Minimum Responsible Amounts of Parking"
- Car Share Service
- Active Demand Surveys and other Parking Management Activities
- Shared Parking
- Offsite Parking
- TDM in lieu of Parking
- Public Parking Payment Programs
  - Technology
  - Active Enforcement

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Parking Management in Sunnyvale

- Permit Parking Areas
- Downtown Parking District
- Parking at City Facilities
- On Street Parking
- On-site Parking Standards
- Site specific:
  - Shared and offsite parking
  - TDM
  - Planned neighborhoods

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Resources for an Active Parking Management Program

- Code Changes
- Land Use Changes
- Technology and Capital Investment
- Ongoing Staffing, Management, and Maintenance Resources
- SIGNIFICANT INVESTMENT

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