# AT A GLANCE: Fundamentals of Transportation Demand Management

## Transportation Demand Management (TDM)

can be defined as: Programs, policies, and services that help the traveling public make use of alternatives to driving in single-occupancy vehicles (SOVs) and reducing traffic demand.

The Federal Highway Administration defines TDM as "a set of strategies aimed at reducing the demand for roadway travel, particularly in single-occupancy vehicles. These strategies address a wide range of externalities associated with driving, including congestion, poor air quality, less livable communities, reduced public health, dependence on oil, reduced environmental health, and climate change and greenhouse gas (GHG) emissions. Some TDM strategies are designed to reduce total travel demand, while others are designed to reduce peak period demand, which may disproportionately contribute to these externalities." 1





International Parking & Mobility Institute

- Data collection and benchmarking, including mode split and SOV trips for effective decision-making.
- Public transit, intermodal connections, shuttles, and other alternative methods of transportation.
- Incentives to use transit, carpooling, and other alternative commuting methods.
- Disincentives to driving alone.





#### AT A GLANCE: FUNDAMENTALS OF TDM

#### **Ten Commonly Applied Programs and Policies**

- Data Collection & Benchmarking. Data from surveys, traffic counts, parking utilization, transit ridership, and other programs help determine mode split and program performance.
- 2. Ride-sharing/Carpool/Vanpool. Carpools have at least a driver and a rider who share a ride. Carpools may be formed by family members, neighbors, co-workers, through app-based programs, or even ad-hoc "slug" lines. Vanpools make use of a five- to 15-passenger vehicle leased through a third party or provided by an employer that uses a volunteer driver(s); riders may pay a monthly fee, while sharing the costs for gas, tolls and/or parking.
- **3. Car-share.** Micro car rental by the hour usually provided through third parties such as Zipcar, Car2Go, and Maven that use an app or smartcard to access the car. Rentals usually include gas and insurance and do not require interfacing with a rental office. This program supports those who use non-drive-alone modes.
- 4. Parking Cash Out/Payment in-lieu of Parking.
  Allows employers to provide a salary increase for the cost of parking instead of providing parking for free.
  Employees can then use that salary increase for parking, transit, or vanpools tax-free or keep it as a taxable increase if they commute by biking, walking,

- or carpooling, or otherwise do not drive to work, i.e. work remotely.
- **5. Ride-share.** Web- or app-based software that helps form carpools. Examples include Scoop, RideAmigos, and Zimride.
- **6. Pass/Subsidies.** Provides reduced-price or free transit passes to employees. Passes can be provided tax-free and/or employees can use pre-tax salary to cover any remaining costs.
- 7. Provisions for Active Transportation. Walking, bike parking, valet, card access, storage, and provisions of changing rooms/showers and lockers.
- **8. Guaranteed Ride Home.** Providing non-drive-alone commuters with a taxi or TNC (Uber/Lyft) ride home or a car rental at no cost to the commuter. This is typically used for unexpected situations such as illness, child care, home damage, etc., and not for overtime or offsite work trips.
- 9. Ecopass/Occasional Parking. Providing roughly 20 days of parking per year for bad weather days, visitors, special events, etc. This applies to commuters using a mode other than driving alone (transit, carpool, bike, or walk).
- **10. Remote Parking.** Providing shuttle or transit from outside core parking area.

### Parking, Mobility, and TDM

Parking has a fundamental effect on what happens in cities and towns and how the greater transportation and mobility system functions. Designing and implementing an effective, professionally-managed parking strategy can mean the difference between frustrating and costly traffic congestion and efficient, time-saving traffic flow that is characteristic of smart cities. TDM policies affect parking resources directly and indirectly; appropriately priced on- and off-street parking can work in tandem with other TDM strategies to create desired incentives and outcomes, including but not limited to:

- Managing parking demand and meeting parking limitation regulations.
- Providing additional programs and services to users and customers.
- Documenting Parksmart certification and Accredited Parking Organization (APO) accreditation requirements.
- Contributing to a building's LEED certification.
- Reinforcing and expanding an organization's sustainability efforts.
- Growing the customer base to include those who do not drive or those who ride-share.

#### **Featured Resources for Additional Research**

- A Guide to Parking, International Parking Institute, 2018; reference chapter on TDM
- IPI Online Course: Transportation Demand Management: Parking Strategies
- Sustainable Parking Design & Management: A Practitioner's Handbook; reference chapter on TDM
- Victoria Transportation Policy Institute
- Online TDM Encyclopedia
- Mobility Lab
- Parksmart Certification Manual, Green Business Certification Institute
- Integrating Demand Management into the Transportation Planning Process: A Desk Reference, Department of Transportation, Federal Highway Association

For more information, search keyword "TDM" in IPMI's online Resource Center at parking-mobility.org.