Commuter Connections TDM Evaluation Framework Update FY 2021-2023





October 19, 2021

LDA Consulting

with CUTR, ESTC, and WBA Research





CC TDM Evaluation Framework

Since 1997, MWCOG has undertaken vigorous evaluation of Commuter Connections' TDM elements.

Evaluation purpose – document TDM program results and guide TDM decision-making:

- Progress toward trip, VMT, and emission reduction goals
- TDM program cost-effectiveness
- Feasibility of new services
- Service user profiles
- CC program management
- TDM value to stakeholders
- Regional transportation trends



Evaluation Framework documents evaluation goals, analysis approach, and data collection plan for the 3-year evaluation period:

FY 2021 - FY 2023 (July 1, 2020 to June 30, 2023)

Evaluation Consists of Multiple Components

Comprehensive triennial evaluation

- Methodology "framework" update
- TDM Element data collection (surveys and databases/tracking)
- Detailed analysis for each TDM Element
- Triennial Impact Report

Ongoing and annual components

- Track participation in TDM elements
- Track incentive program requests/use
- Measure service use and satisfaction (e.g., GRH trip)
- Track marketing/outreach activities
- Collect data for regional and local transportation studies

2021-2023 TDM Elements:

- Telework
- Guaranteed Ride Home
- Employer Outreach
- Mass Marketing
- Commuter Operations
 Center; Integrated Rideshare
 Software Upgrades

2021-2023 Framework Builds on 2018-2020 Framework

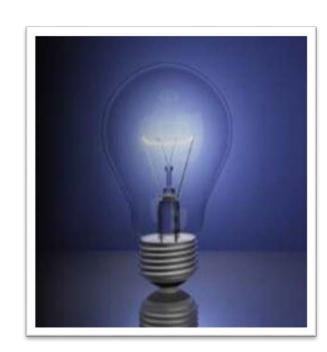
Update to reflect 2020 TDM analysis p

Update for new CC TDM program elements

Updates to refine analysis/data collection

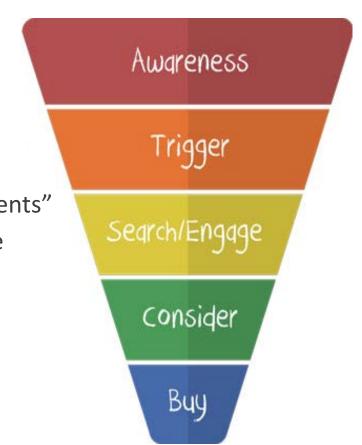
Additional efforts to enhance relevance and value of CC evaluation:

- Explore impact of coronavirus pandemic on past travel behavior and anticipated future travel
- Position CC to assist with regional transportation initiatives and issues
- Expand understanding of technology use/role in commute travel decision-making



Continuum of Performance Measurement

- Awareness modes/programs
- Attitudes willing to try modes
 - Participation CC services used
 - Satisfaction with services
 - Utilization travel change "placements"
 - Influences motivations for change
 - Impacts of behavior change
 - Alternative mode placements
 - Vehicle trips and VMT reduced
 - Emissions reduced
 - Energy saving
 - Delay reduction
 - Societal cost savings (\$ benefits)





Databases / Analysis Tools





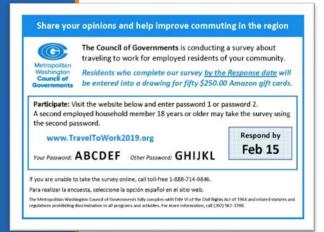
Databases/other tracking data

- ACT! Employer Contact database (Employer Outreach)
- Telework Assistance database (Telework)
- Online service users database (coc)
- Online GRH registrant database (GRH)
- COC website and call volume tracking (Mass Marketing)
- Documentation of marketing activities (Mass Marketing)
- Event participation tracking (Mass Marketing)
- 'Pool Rewards participant data (Mass Marketing)
- CarpoolNow, IncenTrip, Flextime Rewards participant use/request data (Mass Marketing)

Analysis tools

- EPA COMMUTER model v2.0 (Employer Outreach)
- TDM-ROI Calculator (Overall calculation)

Data Collection Tools/Surveys





Regional / General Population Surveys

- State of the Commute (Telework, Mass Marketing)
- Employee (Employer Outreach) administered by employers

CC Service User Surveys

- Guaranteed Ride Home (GRH)
- Telework Employer (Telework, Employer Outreach)
- CC Applicant Placement Rate (COC, Mass Marketing)
- Bike-to-Work Day (Mass Marketing)
- 'Pool Rewards Participant (Mass Marketing)
- Car Free Day (Mass Marketing)
- Retention Rate (GRH, COC)

Occasional Surveys of Regional/Topical Interest

- Vanpool Driver
- Employer Satisfaction

User Surveys Assess Service Use and Travel Changes

- Current travel patterns Mode (days per week), occupancy, distance
- Travel changes Switch to alternative modes, prior modes, trial vs continued changes?
- Service use and influence Service use (e.g., form CP with ridematch, take GRH trip?) and role in influencing or assisting travel change?

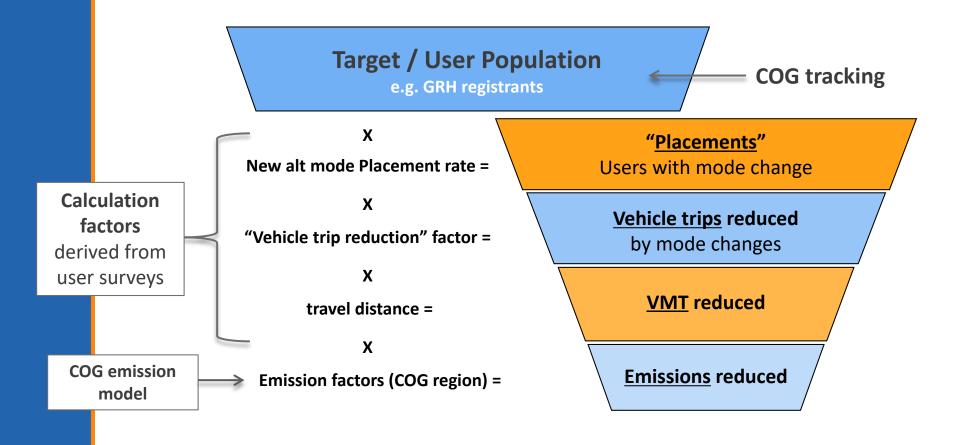


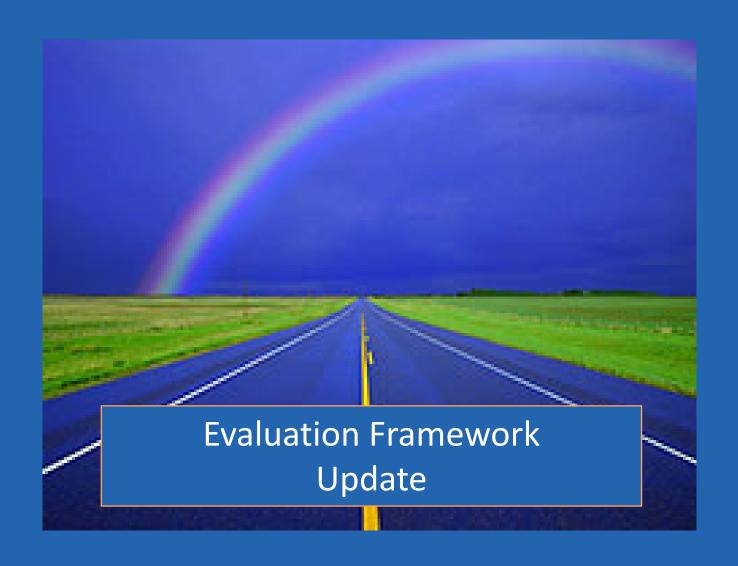
- Satisfaction Satisfied with service, desired improvements, other services used
- Referral Sources of info on services
- Demographics User profile

Survey Data Are Used to Calculate Service Impacts

Calculation approach uses a series of "multiplier" factors, applied to user population for each TDM program element.

Same approach for all elements, but factors are unique to each element.





2021-2023 Framework Emphasis Areas

Three evaluation priorities:

- Document CC TDM program impacts against goals set for the programs
- Compile data useful to CC program management and development
- Collect and report commute data that support other MWCOG functions and CC partner efforts

Proposed emphasis areas for 2021-2023:

- 1. Incorporate methods applied in 2020 TDM analysis and new CC services
- 2. Collect data for regional analysis of coronavirus pandemic travel changes
- 3. Modify 2023 impact calculation method to account for pandemic influences
- 4. Collect data to document CC' contribution to <u>regional transportation</u> <u>objectives</u> and support <u>regional/local transportation</u> studies
- 5. Collect data to examine commuters' <u>attitudes toward and use of new</u> <u>technologies and new mode options</u> and influence on commute decisions

1 - Updates to Reflect 2020 TDM Analysis and Incorporate New CC Services/Techniques

TDM Framework <u>evolves</u> to accommodate CC program changes and incorporate new/improved methods:

- Update <u>program goals</u> consistent with CC/COG regional analysis
- Document <u>new survey methodologies</u> (e.g., SOC ABS-Internet method,
 Placement Rate survey for incentive programs) and update calculation factors with new surveys
- Revisit EPA COMMUTER model as analysis tool for Employer Outreach
- Review and refine methods to estimate impacts of incentive programs:
 CarpoolNow, incenTrip, Flextime Rewards







2 – Coronavirus Pandemic Travel Analysis

<u>Background:</u> The coronavirus pandemic has dramatically affected commute patterns since spring 2020 with increases in telework, mode shifts, and for some workers, job and home location shifts. What changed during the pandemic and what long-term travel changes might be anticipated?

<u>Recommendation:</u> Compile data on pandemic-related commute behavior and potential ongoing changes related to commuting to support regional understanding and planning:



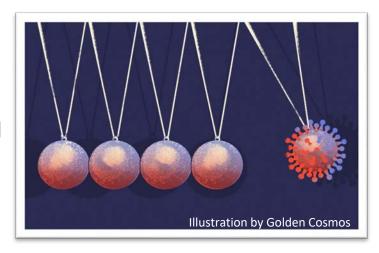
- Commute pattern changes during pandemic and immediately post-pandemic
- Telework incidence and experience
- Comfort-level with shared modes and anticipated future use
- Pandemic-related changes in jobs, work and home locations

3 – Adjust Impact Method for Pandemic Influence

<u>Background:</u> Past frameworks assumed that commute changes observed in surveys conducted once in the triennial cycle represented the full 3-year period. But at least half of the 2021-2023 period will have been "during pandemic," when normal travel was disrupted.

<u>Recommendation:</u> Review method for each TDM element and the conditions in place at the time calculation factor data for that program were collected. Describe how anticipated pandemic impacts will be documented in the analysis report:

- Add questions to surveys to assess pandemic travel changes
- Document timing for derivation of calculation factors
- How to adjust for telework use in the Employer Outreach calculation (e.g., TW replacing modeled use of alt modes)?
- Commute events (e.g., BTWD was canceled for 2020 and greatly reduced for 2021)



4 – CC Contributions to Regional Goals

<u>Background:</u> Regional transportation plans (CMP, Visualize 2045 LRTP) define objectives and requirements for system performance, equity/accessibility, and other societal goals. TDM data can demonstrate CC services' value/contribution.

Recommendation: Continue collecting and reporting data to document CC and

TDM contribution to regional transportation goals:

- Data on changes in regional transit use and availability of and commuters' interest in and use of new travel options for commuting
- Data on telework growth and experience, and pandemic-related TW changes by employers and employees
- Document CC efforts to ensure diverse, equitable, and inclusive access to commute info/assistance
- Support regional and local transportation studies with commute/TDM data



5 – TDM Technology Role

Background: Technology has the potential to reinvent travel patterns, through access to new travel options and to real-time information and assistance services. CC has implemented several technology-focused programs and is likely to create others in coming years. Data compiled during the evaluation could help to explore new service feasibility and how to position information.

Recommendation: Document past efforts through SOC/other user surveys to examine commuter attitudes and adoption practices of new transportation technology and services to help CC and others in the region develop services that respond to commuters' needs and interests. Continue collecting and reporting data on:

- Commuters' interest in mobile apps/incentives/shared use services
- Commuter populations with greatest interest/willingness to use services
- Barriers/concerns with using services

2021-2023 TDM Evaluation Schedule

Methodology Update

Input from Evaluation Group Oct-Dec 2021

Draft report Dec 2021

Final report Spring 2022

Surveys

CC applicant placement* Nov 2020

State of Commute 2022
 Jan-Jun 2022

GRH Apr-Jun 2022

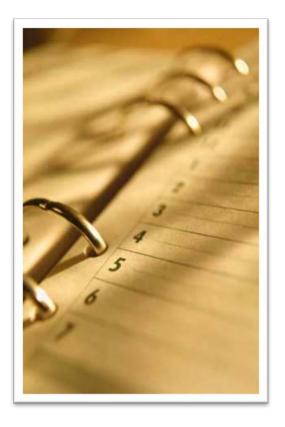
Bike to Work Day Fall 2022

Telework employer Spring 2022

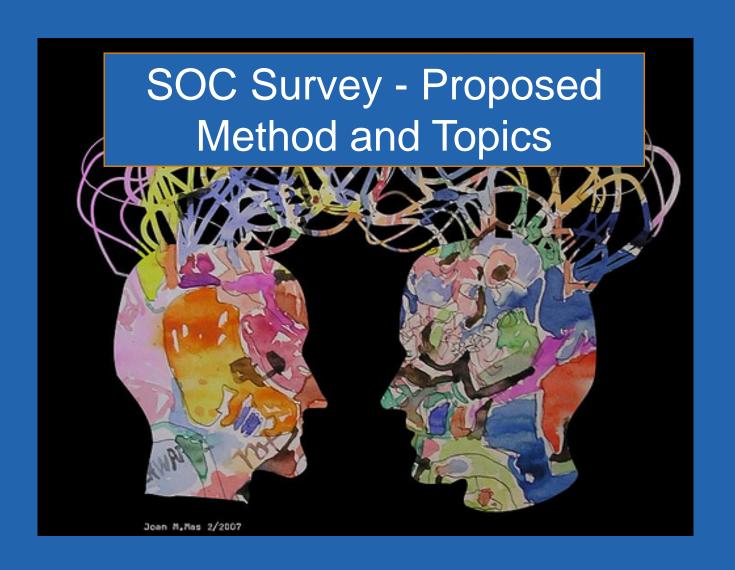
Analysis / Report

TDM analysis – draft Jun 2023

TDM analysis – finalDec 2023



^{*} Placement survey already conducted for 2021-2023 evaluation cycle



SOC Survey Method

- 8th triennial survey (2001, 2004, 2007, 2010, 2013, 2016, 2019, 2022)
- Internet survey of 8,000 randomly-selected residents of 11-jurisdiction COG region (95% + 1.1%); divided into Core, Middle, Outer sections
- Jurisdiction counts similar to 2019 (range from 664 to 941)



- Employed residents 18+ years old
- Address-based sample of random addresses drawn from each jurisdiction
- Financial incentive drawing for respondents
- Spanish language option available
- County level results will be expanded to the regional population of workers
- Data also will be weighted to adjust sample for race/ethnicity and age

Survey Method Details

Survey Characteristics

Households randomly selected from each jurisdiction; receive USPS postcard with website URL and 2 passcodes

Target interviews – 8,000 (95% <u>+</u> 1.1%)

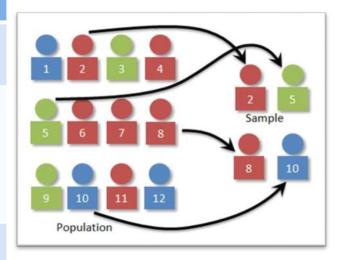
- Minimum 600 per jurisdiction (95% + 4.0%)
- Targets for Core (inner), Middle, and Outer sub-areas
- Oversample Core residents
- Samples sufficient for robust regional/sub-area analysis

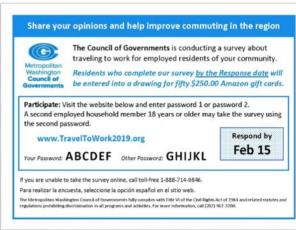
Postcards will be sent to 400,000 addresses – estimate regional response of 2.0%, varying by jurisdiction

Postcards to be mailed in 2 waves:

- Wave 1 equal distribution
- Wave 2 rebalanced to boost counts in Wave 1 areas with low response

To increase response rate, postcards will target message to "employed residents of your community" and address block will name the county, "e.g., "Loudoun County Resident"





SOC Schedule

- Survey preparation Sept-Dec 2021
 - Questionnaire, sample plan, postcard design, mailing prep
- Data collection Jan-Mar 2022
 - Internet survey Wave 1 mailing mid Jan 2022
 - Check W1 response rates; define W2 sample late Jan 2022
 - Internet survey Wave 2 mailing mid Feb 2022
 - Telephone follow-up survey mid Feb 2022
 - Complete data collection mid/late Mar 2022
- Analysis and reports Apr-Jun 2022
 - Data cleaning and analysis Apr-May 2022
 - Draft report to CC Jun 30, 2022
 - Presentation to CC Sub-committee Mid June 2022

SOC Survey Topics

Continued tracking questions

- Current/past commute patterns
- Use of new travel options (e.g., ridehail, scooter) *
- Current and potential for telework
- Awareness/access to transit, HOV/Express lanes, P&R
- Transportation satisfaction, benefits of alternative mode use
- Past use of transit among transit non-riders; why stopped *
- Mass marketing awareness and influence
- Awareness of CC, regional and local commute services
- Employer commute assistance
- Use of travel technology, influence on commute decisions *

Possible new topics in 2022

- Commute differences during pandemic
- Pandemic-related telework and telework experience



^{*} New topics added in 2019 SOC

Questions?

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