#### ITEM #6A

# Commuter Connections TDM Evaluation Framework Update FY 2018-2020









Presentation to Commuter Connections Subcommittee

January 15, 2019

LDA Consulting

with CIC Research, CUTR, and ESTC

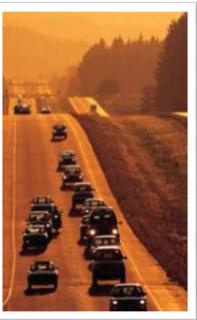




# CC TDM Evaluation Framework and Analysis

- <u>Triennial impact analysis/reporting</u> for Commuter Connections' TDM activities
- Framework report documents evaluation goals, analysis approach, and data collection plan for the coming 3-year evaluation period
- Conducted to <u>estimate impacts</u> and <u>communicate program value</u> to funders and regional policy-makers
- Estimate impacts for:
  - Telework
  - Guaranteed Ride Home
  - Employer Outreach
  - Mass Marketing
  - Commuter Operations Center (Basic Services and Integrated Rideshare Software Upgrades)





# Objective – Produce Reliable, Useful Impact Results

Measure impacts of Commuter Connections'

TDM services in a reliable, efficient, and methodologically-sound manner

<u>Communicate information on service</u>
<u>performance</u> to stakeholders, ensuring that results are useful to decision-making and program management:

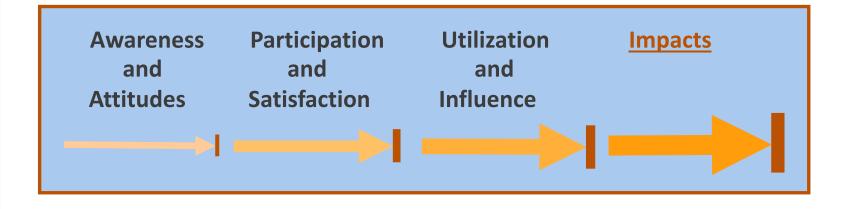


- Measure performance on indicators <u>related to regional goals</u> for transportation
- Use <u>common</u>, <u>quantitative performance measures</u> to facilitate comparisons among TERM and between TERMs and other strategies
- Facilitate <u>ongoing activity reporting</u> and estimate of benefits for day-to-day program management
- Track both <u>continued</u> (baseline) <u>impacts</u> and <u>new impacts</u> during the analysis period

#### Performance Measures

- Awareness modes/programs
- Attitudes willing to try modes
  - Participation CC services used
  - Satisfaction with programs
    - <u>Utilization</u> Travel change "placements"
    - Influences motivations for change
      - Impacts of behavior change





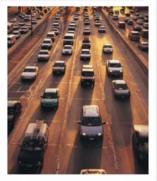
# **CC TDM Service Impact Indicators**

#### Travel and environmental impacts from behavior change

- Mode split
- Alternative mode placements
- Vehicle trips reduced
- VMT reduced
- Emissions reduced
- Energy saving
- Delay reduction \*
- Societal cost savings (\$ benefits) \*



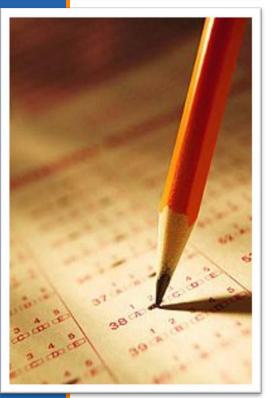




<sup>\*</sup> New in 2018-2020 Framework

# Data Collection – Surveys to Assess Trends/Change





#### Regional / General Population Surveys

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

#### **CC Service User Surveys**

- Guaranteed Ride Home survey (GRH)
- Telework employer survey (Telework, Employer Outreach)
- CC applicant placement rate survey (COC, Software Upgrades, Mass Marketing)
- Bike-to-Work Day survey (Mass Marketing)
- 'Pool Rewards participant survey (Mass Marketing)
- Retention Rate survey (GRH, COC)

# Databases / Analysis Tools





#### <u>Databases/other tracking data</u>

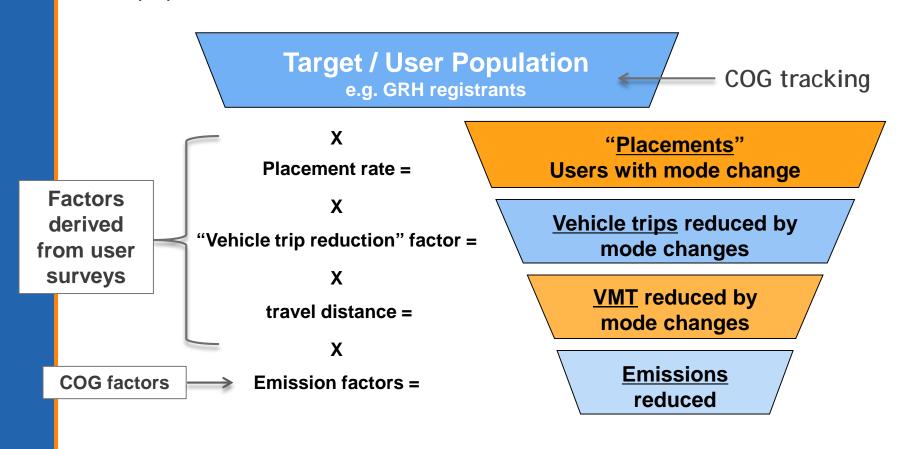
- ACT! Employer Contact database (Employer Outreach)
- Telework Assistance database (Telework)
- Online service users database (coc)
- Online GRH registrant database (GRH)
- COC website and call volume tracking (Mass Marketing)
- Documentation of marketing activities (Mass Marketing)
- Event participation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

#### **Analysis tools**

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

# Impact Calculation Approach

Impact calculation approach uses series of "multiplier" factors, applied to user population





#### 2018-2020 Framework Builds on 2015-2017

Update to reflect 2017 TDM analysis

+

Update for new CC TDM services



Updates to refine analysis/ data collection

Other 2018 – 2020 changes: Collect/analyze data to **enhance relevance and value** of CC evaluation:

- Position CC's TDM contribution to <u>congestion</u> <u>mitigation</u>, <u>performance-based planning</u>, and <u>other regional transportation goals</u>
- Examine <u>use and influence of new technologies</u> on commute decisions and role in CC Program
- Support <u>messaging</u> to business/employers and to commuters and <u>development of new CC</u> <u>services</u>



# Updates to Reflect 2017 TDM Analysis, New CC Services, and Data Collection Improvements

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
- Develop methods to estimate impacts of new CC services: <u>CarpoolNow</u>, incenTrip, Flex Rewards
- Document method to calculate <u>societal benefits/ROI</u> of CC TDM Program
- Document <u>new data collection methodologies</u> that will be or could be used to collect evaluation data (e.g., SOC Internet/phone follow-up; address-based sampling; service use digital data collection; respondents incentives; text polls for events)







# TDM as Part of Regional Goals/Plans

#### **Background:**

Since 1997, CC TDM Program evaluation has focused primarily on air quality conformity.

But transportation decisions are increasingly driven by sustainability/livability, safety, congestion management, and system performance objectives.



- CC TDM Program named as strategies in the regional congestion management process (CMP).
- New Federal requirements for performance-based planning (new PMs for peak hour excessive roadway delay and % non-SOV travel).
- Regional Transportation Priorities Plan set a goal to "provide a comprehensive range of transportation options."
- Regional "Visualize 2045" plan set aspirational initiatives and a call to action to "better manage peak period travel demand, reduce SOV travel, make transit more viable and affordable, and enhance existing infrastructure."

# CC Services' Contributions to Regional Goals/Plans

#### **Framework Update**

TDM evaluation data can demonstrate how CC TDM Programs contribute to fulfillment of regional plan objectives, support regional transportation system performance, and generate a wide range of societal benefits.

Continue process to measure societal benefits and contribution to regional transportation goals:

- New data collection and analysis to estimate CC contribution toward TPB's 7 initiatives in Visualize 2045
- Collect data in SOC and user surveys to define <u>societal benefits and ROI</u>
- Explore if CC data could be useful for <u>system-performance</u> assessment: FHWA guidance allows use of locally-collected data for PM reporting

# Visualize 2045 Aspirational Initiatives

- Bring jobs and housing closer together
- 2. Expand <u>bus rapid transit</u> regionwide
- 3. Move more people on Metrorail
- 4. Increase <u>TW and other options for</u> commuting
- 5. Expand express highway network
- 6. Improve walk/bike access to transit
- 7. Complete National Capital Trail

# Growing Role of Technology in Transportation

#### **Background:**

Technology already has had a dramatic influence on transportation in recent years and likely will reinvent travel patterns further in the near future:

- Real-time access to information about travel options
- Automated vehicles
- Shared-use modes
- Dynamic and flexible travel options
- New ways of delivering existing services via Mobility as a Service (MaaS).





How technology implementation is structured and integrated into existing systems will play a key role in determining the influence of technology programs on travel decisions and the degree to which they could impact congestion.

# Define Baseline on Technology Use and Attitudes

#### **Framework Update**:

Seek opportunities through SOC/other CC user surveys to examine commuter attitudes and adoption practices of new transportation technology and services.

- Follow-up questions for commuters who use Uber/Lyft/Via, bikeshare
- Trends in telework / remote work
- Use of travel technology
- Attitudes toward Automated Vehicles
- Use of new CC services (e.g., incenTrip, CarpoolNow, Flextime Rewards)

#### Data can be analyzed to assess:

- Baseline level of awareness/use
- Demographics of technology users and service users
- Populations receptive to new services
- Commute service changes that might be related to technology
- Information distribution opportunities



# CC Messaging and Service Development

<u>Background:</u> Commuter/employer outreach is a central element of CC/local partner programs. CC also implements services to appeal and respond to commuters' travel needs and interests. Data produced during the evaluation can help to inform outreach efforts and explore service feasibility.

<u>Framework Update:</u> Seek opportunities through SOC/CC user surveys to collect data on CC service benefits to commuters/employers and potential interest in new service ideas. Provide data for talking points and service analysis:

- Employer benefits when employees use commute services/alternative modes
   absenteeism/tardiness, recruitment, productivity, parking/facility use
- Commuters' perceptions of personal benefits of alt modes and barriers to use
- Commuter populations with potential to use and greatest interest in services







#### 2018-2020 TDM Evaluation Schedule

#### Methodology Update

Input from Evaluation Group
 Oct-Dec 2018

Draft report Dec 2018

Final report Spring 2019

#### <u>Surveys</u>

CC applicant placement
 Nov 2017

State of Commute Jan-Jun 2019

GRH Apr-Jun 2019

Employer satisfaction
Jan-Mar 2019

Bike to Work Day Fall 2019

Telework employer Spring 2020

Retention Rate Spring 2021

#### Analysis / Report

TDM analysis – draftJun 2020

TDM analysis – final Dec 2020



### **Questions?**

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