

# HANDOUTS

from previous meeting



**December 16, 2003**

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**TERM Analysis 2003-2005**  
**Task B – Evaluation Framework Update**  
**Review and Proposed New Elements**  
**December 16, 2003**

**Overall Objective of Evaluation:**

To measure of the impacts of the TERMS implemented by Commuter Connections and provide useful information back to program managers and policy-makers.

**TERMs to be Evaluated:**

- Telework Resource Center
- Guaranteed Ride Home
- Integrated Rideshare -- software upgrades
- Integrated Rideshare – kiosks
- Employer Outreach – jurisdiction sales and Metrochek
- Employer Outreach for Bicycling
- Commuter Operations Center
- *Mass Marketing (new)*

**Data Collection Tools and Tracking Systems:**

- Surveys
  - FY 04
    - Employee survey (voluntary administration by employers)
    - Telework center occupancy and telecenter users travel pattern surveys
    - State of the Commute survey
    - Guaranteed Ride Home survey
    - Annual Commuter Connections applicant Placement Rate survey (also FY 05)
  - FY 05
    - TRC assisted-employer follow-up survey
    - Bike-to-Work survey
    - Metrochek employer survey
    - Update vanpool survey
    - Mini Household survey
- Databases/other tracking data
  - ACT! Employer Contact database (Employer Outreach)
  - Commuter Connections applicant database (COC, GRH, kiosk, internet applicants)
  - Metrochek employer data records/Metrochek sales information
  - Bike to Work Day participant record
  - TRC employer records
  - Commuter Operations Center activity tracking

## Review of Basic Impact Calculation Methodology Steps:

- Estimate commuter population “base” (e.g., all commuters, GRH registrants, CC applicants, Kiosk users, EO employees, Metrochek employees, etc.)
- Estimate number of “placements” = Commuters who made a travel change as a result of the TERM
- Estimate vehicle trips (VT) reduced
  - GRH, kiosks, COC, software, mass mkt = placements x VTR factor \*
  - TRC, Employer Outreach = Other method
- Estimate VMT reduced = VT reduced x VTR
- Adjust vehicle trips for SOV access = Total VT – SOV access trips
- Adjust VMT for SOV access = Total VMT – SOV access VMT
- Estimate emissions reduced = VT and VMT x emission factors

\* NOTE: The vehicle trip reduction (VTR) factor represents the average number of vehicle trips that a commuter “placed” in HOV would reduce per day. The VTR factor combines the trip reduction results of three possible shifts to HOV: shifts from DA to HOV, shifts from one HOV mode to another HOV mode (e.g., from carpool to transit), increasing weekly frequency of HOV use (e.g., from carpool one time per week to carpool three times per week).

## Summary of Proposed Changes to Methodology – FY 2003-2005

### General

1. Update evaluation framework to reflect methods used in 2002 TERM analysis (see attached summaries) for each TERM
2. Add new TERM evaluation component for Mass Marketing (attached handout)
3. Review basic evaluation objectives, issues and performance measures
4. Delineate new data collection activities, schedule, and any modified roles and responsibilities

### Changes by TERM

#### Mass Marketing TERM – New for FY 2003-2005

- Develop new evaluation methodology

#### TRC

- Include tw!VA pilot sites in TRC calculation

#### GRH

- No changes to calculation/analysis methodology

#### Integrated Rideshare – Software Upgrades

- Combine temporary and one-time placement rates/VTR factors – adjust duration

#### Integrated Rideshare – Kiosks

- No changes to calculation/analysis methodology
- Eliminate separate kiosk user survey

#### Employer Outreach – Sales Jurisdiction Reps

- No changes to calculation/analysis methodology
- Describe EPA COMMUTER Model use

#### Employer Outreach – Metrochek

- No changes to calculation/analysis methodology
- Describe EPA COMMUTER Model use

#### Employer Outreach for Bicycling

- No changes to calculation/analysis methodology
- Describe EPA COMMUTER Model use

#### Commuter Operations Center

- Discount COC credit for portion of Mass Marketing TERM credit?
- Combine temporary and one-time placement rates/VTR factors – adjust duration

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**Evaluation Methodology Summaries by TERM**

Mass Marketing

Telework Resource Center

Guaranteed Ride Home

Integrated Rideshare - Software Upgrade

Integrated Rideshare - Kiosk

Employer Outreach – Jurisdiction Sales Representatives

Employer Outreach – Metrochek

Employer Outreach for Bicycling

Commuter Operations Center

## Mass Marketing - Evaluation Methodology (new for 2003)

### MM TERM Objectives

- Acknowledge commuters' frustration with traffic, present alternative mode options, and brand CC as "go to" source for commute information/assistance

### Populations of Interest:

- All regional commuters
- Commuter Connections clients (e.g., GRH registrants. COC database applicants)

### Issues Raised:

- What level of TERM analysis is needed and feasible in measurement of benefits/impacts?
- What are we measuring – increase in awareness of and demand for services OR placements/impacts from marketing?
- What are implications for State of the Commute survey – additional questions, possible oversampling of some populations, need to delete some existing questions?
- How do we credit influence on other services and avoid double counting of benefits?

### Hierarchy of Actions Influenced of Mass Marketing

Ultimate impact of mass marketing should be to change commuters' travel behavior, but marketing could influence commuters' mode choice decision in several ways. Possible results, along a hierarchy of effects, include:

1. Increase awareness (message recall) – did the campaign capture and retain the attention of commuters?
2. Change attitude – did it create a willingness and desire to try an alternative mode?
3. Provide information – did it adequately inform commuters of the available information and assistance resources?
4. Prompt contact – did it influence commuters to contact and use these resources?
5. Encourage trial – did it influence commuters to try an alternative mode?
6. Change permanent behavior – did it influence commuters to permanently shift to an alternative mode?

### Data Sources/Assessment Approach:

Assess changes in awareness, attitudes, information:

- *Population-at-large:*
  - In modified State of Commute survey - capture awareness and recall of specific marketing message and awareness of regional commuter assistance services, particularly CC as information/assistance source

- *CC clients* (e.g., COC applicants, GRH registrants):
  - Ask referral source at time of contact (where they heard about these services).
  - In client surveys (e.g., placement survey), ask about awareness and relative influence of the marketing campaign

Assess increase in contacts:

- *Population-at-large/CC clients:*
  - Monitor inquiry contact volumes to program info sources (phone, internet) corresponding to mass marketing waves
  - Ask callers about referral source and attitudes toward travel/alternative modes
  - In SOC survey, ask about use of regional services in SOC survey – correspond to awareness of marketing campaign

Assess trial and permanent behavior change:

- *Population-at-large:*
  - In SOC survey, assess travel behavior changes among commuters who recall hearing message and cite influence of marketing campaign. Need to correct for double counting with commuters who also cite influence of other TERM on change. (Might need to oversample commuters who have made a change and/or recall hearing the message)
  - As alternative (if adequate sample of “change” commuters cannot be identified in SOC), estimate MM credit from placement survey and increase in call volume over volume at same time in previous year (portion of credit otherwise assigned to COC)

**Marketing Impact Analysis:**

- Assess awareness, attitudes, information, and contacts as “qualitative” assessment of MM TERM.
- Assess trial and permanent behavior change as “quantitative” measure of benefit – compare against MM TERM goals

**Means to Avoid Double Counting:**

- Credit placements/benefits to MM if marketing campaign mentioned as primary reason for mode switch or no CC service (other than ridematching) is cited; otherwise credit to other TERM
- Track all placements/benefits that were influenced even somewhat and report “contributory” role of MM on credits assigned to other TERMS

**Enhancements Recommended for 2003:**

- Include specific methodology for Mass Marketing TERM in 2003 Evaluation Framework

## **Telework Resource Center - Evaluation Methodology**

### **2002 Populations of Interest:**

- All regional teleworkers
- Employees at worksites assisted by TRC
- TC Pilot program teleworkers (MD and VA)
- Teleworkers at Metro Washington Telecenters

### **2002 Data Sources:**

- State of the Commute Survey (regional teleworkers)
- TRC Assistance Survey (conducted by MWCOG staff)
- Tracking data from pilot program worksites (collected by MWCOG staff)
- Telecenter occupancy data and teleworker surveys

### **Telework Impact Analysis:**

- Identify teleworkers directly assisted by TRC and teleworkers working at assisted worksites
- Calculate continued placement rates for each group; calculate placements
- Divide placements into home-based and TC-based
- Calculate VTR factor for home/TC
- Calculate trips/VMT/emissions reduced

### **Means to Avoid Double Counting:**

- Portion of TRC impacts subtracted from Employer Outreach

### **Issues Raised/Improvements made in 2002 Evaluation:**

- Added participation of TC pilot program worksites

### **Enhancements Recommended for 2003-2005:**

- Include tw!VA pilot sites in TRC calculation

## **Guaranteed Ride Home - Evaluation Methodology**

### **2002 Populations of Interest:**

- GRH registrants
- One-time exemption riders

### **2002 Data Sources:**

- GRH registrant survey (including exemptions)

### **GRH Impact Analysis:**

- Identify commuters in GRH database (registered and one-time users)
- Divide placements into “within MSA” and “outside MSA” home location
- Calculate continued placement rates, VTR factors for each group
- Calculate placements and trips
- Calculate travel distance for within MSA, discount “outside MSA” to same as “within”
- Calculate VMT, emissions reduced

### **Means to Avoid Double Counting:**

- Correct for overlap with COC – discount COC by portion of GRH credit based on percentage of GRH applicants who also asked for rideshare info (13.3% in FY 2002 analysis)

### **Issues Raised/Improvements made in 2002 Evaluation:**

- Discounted VMT reductions made outside MSA
- Derived one placement rate for GRH registrants and one-time exemptions

### **Enhancements Recommended for 2003-2005:**

- No changes to calculation/analysis methodology

## **Integrated Rideshare (Software Upgrades) - Evaluation Methodology**

### **2002 Populations of Interest:**

- CC Rideshare applicants who remembered receiving transit and/or park & ride info

### **2002 Data Sources:**

- Rideshare applicant placement survey
- Commuter Connections database

### **Software Upgrades Impact Analysis:**

- Identify applicants who remember receiving P&R, transit info
- Calculate continued, temporary, and one-time placement rates, VTR factors
- Calculate trips/VMT/emissions reduced

### **Means to Avoid Double Counting:**

- Discount COC credit by credit applied to IR-software upgrades

### **Issues Raised/Improvements made in 2002 Evaluation:**

- None

### **Enhancements Recommended for 2003-2005:**

- Combine temporary and one-time placement rates/VTR factors – adjust duration

## **Integrated Rideshare (Kiosks) - Evaluation Methodology**

### **2002 Populations of Interest:**

- Commuters who used kiosks to obtain commute information (subset of all commuters in region)

### **2002 Data Sources:**

- State of the Commute Survey

### **Software Upgrades Impact Analysis:**

- Identify regional commuters who used kiosks to obtain info
- Calculate continued and temporary placement rates, VTR factors
- Calculate trips/VMT/emissions reduced

### **Means to Avoid Double Counting:**

- Discount COC credit by IR-kiosk credit for COC applicants who applied through kiosks (In 2002, 0.5% of COC base of applicants who obtained information through kiosk)

### **Issues Raised/Improvements made in 2002 Evaluation:**

- Used SOC to track any kiosk users
- Captured all kiosk users, not just kiosk rideshare applicants/"known" users

### **Enhancements Recommended for 2003-2005:**

- No changes to calculation/analysis methodology
- Eliminate separate kiosk user survey

## **Employer Outreach (Jurisdiction Sales Reps) - Evaluation Methodology**

### **2002 Populations of Interest:**

- All private sector client worksites with Level 3-4 programs
- Total employees working at these worksites

### **2002 Data Sources:**

- ACT! database
- Baseline employee travel surveys (voluntary, not part of contract work)
- EPA COMMUTER model runs

### **Jurisdiction Sales Impact Analysis:**

- Using ACT! data, divide worksites into categories by worksite and program characteristics
- Use baseline employee surveys to estimate “before” average vehicle occupancy rates for worksite
- Use COMMUTER model to estimate “after” average vehicle occupancy rates (with program)
- Apply difference in AVO (“before” – “after”) to employee population to estimate vehicle tips reduced
- Estimate VMT and emissions reduced
- Correct for double counting with TRC and EO-Bicycling

### **Means to Avoid Double Counting:**

- Discounted EO result by portion of credit for TRC TERM and by credit for Employer Outreach for Bicycling

### **Issues Raised/Improvements made in 2002 Evaluation:**

- Included all private employers, including < 100 employees
- Looked at Level 3 and 4 programs only (Level 2 not included)
- COMMUTER model allowed differentiation of employers into more program types (90+ categories) representing strategies in program

### **Enhancements Recommended for 2003-2005:**

- No changes to calculation/analysis methodology
- Describe EPA COMMUTER Model use

## **Employer Outreach (Metrochek) - Evaluation Methodology**

### **2002 Populations of Interest:**

- Metrochek client employer worksites (from WMATA)
- Employees at Metrochek worksites

### **2002 Data Sources:**

- WMATA Metrochek client list
- Metrochek employer survey (not part of contract work)
- EPA COMMUTER model runs

### **Metrochek Impact Analysis:**

- Identify Metrochek worksites not in ACT! database
- Divide worksites into categories by worksite and program characteristics
- Use baseline employee surveys to estimate “before” average vehicle occupancy rates
- Use COMMUTER model to estimate “after” average vehicle occupancy rates (with program)
- Apply difference in AVO (“before” – “after”) to employee population to estimate vehicle tips reduced
- Estimate VMT and emissions reduced

### **Means to Avoid Double Counting:**

- Counted only worksites not in ACT! database

### **Issues Raised/Improvements made in 2002 Evaluation:**

- Included all rideshare related activities at Metrochek worksites – previously had credited only transit benefit

### **Enhancements Recommended for 2003-2005:**

- No changes to calculation/analysis methodology
- Describe EPA COMMUTER Model use

## **Employer Outreach for Bicycling - Evaluation Methodology**

### **2002 Populations of Interest:**

- Client worksites with bicycle programs and employees at these worksites
- Participants in Bike-to-Work Day

### **2002 Data Sources:**

- ACT! database
- BTWD registration lists and participant survey (not part of contract work)
- Baseline employee travel surveys (voluntary, not part of contract work)
- EPA COMMUTER model runs

### **Bicycling Impact Analysis:**

Employer activities:

- Identify worksites with bicycle strategies
- Divide worksites into categories by worksite and program characteristics
- Use baseline employee surveys to estimate “before” average vehicle occupancy rates (without any program)
- Use COMMUTER model to estimate “after” average vehicle occupancy rates with all strategies and with non-bike strategies
- Calculate AVO difference between “with bicycling” and “without bicycling” programs
- Apply difference in AVOs to employee population to estimate vehicle trips reduced by bicycling
- Estimate VMT and emissions reduced

BTWD activities:

- Estimate bicycle use before and after BTWD
- Calculate new daily bicycle trips, adjusted for seasonality
- Multiply by drive alone rate on non-bike days to estimate vehicle trips reduced
- Estimate VMT and emissions reduced

### **Means to Avoid Double Counting:**

- Bicycle outreach impacts subtracted from overall employer outreach

### **Issues Raised/Improvements made in 2002 Evaluation:**

- Not included in 1999 Evaluation Framework – but included in 2002 TERM Analysis

### **Enhancements Recommended for 2003-2005:**

- No changes to calculation/analysis methodology
- Describe EPA COMMUTER Model use

## **Commuter Operations Center - Evaluation Methodology**

### **2002 Populations of Interest:**

- CC Rideshare Applicants for three-year evaluation period

### **2002 Data Sources:**

- Rideshare Placement Survey

### **COC Impact Analysis:**

- Identify all COC applicants
- Calculate continued, temporary, and one-time placement rates, VTR factors
- Calculate trips/VMT/emissions reduced

### **Means to Avoid Double Counting:**

- Subtracted some or all of credits for kiosks (portion), software upgrades (all), and GRH (portion) from COC credit to avoid double counting of activities provided via COC call center

### **Issues Raised/Improvements made in 2002 Evaluation:**

- Avoided double counting with kiosk TERM

### **Enhancements Recommended for 2003-2005:**

- Discount COC credit for portion of Mass Marketing TERM credit?
- Combine temporary and one-time placement rates/VTR factors – adjust duration

## Implications of Mass Marketing TERM Analysis on SOC Survey

### Mass Marketing Topics (Topics in italics already in SOC survey)

Awareness of advertising messages – 1-2 new questions

- *Heard, seen, or read advertising and source of ad (e.g., radio, direct mail)*
- *Message(s) recalled – tie to specific campaign messages*
- Typically listen to radio on way to or from work – stations

Attitudes toward travel and alternative modes – 1-2 new questions

- *More likely to try alternatives after seeing ad*
- What influenced about ad
- Perception of travel difficulty compared to one year ago

Contact – 2-3 new questions

- *Know of regional services – name of program*
- *Source of info about service*
- *Contacted regional number/web site*
- Recall types of information and assistance available
- Contacted other program or employer after hearing ad
- Information desired at time of contact/information obtained

Try alternative mode after hearing/seeing ad – 1-2 new questions

- *Try alt mode in past two years – what mode*
- *Shift to alternative mode in past 2 years*
- *Reason for changing mode*
- *Influence of services (GRH, HOV, employer) in trial or permanent change*
- Modes used before permanent change
- Influence of mass marketing ads in trial or permanent change

### Possible Questions to Delete to Create Space for Other Questions

Q5. How do you usually get to work?

Q45. Would you say your commute time is longer, shorter, or about the same now as it was one year ago?

Q46. Have you made a change in your work location or residence in the last year?

Q66. Were any of the services offered by your employer new within the past two years?