

# Innovative Parking Pricing Demonstration

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Adeel Lari

HUMPHREY SCHOOL  
OF PUBLIC AFFAIRS

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UNIVERSITY OF MINNESOTA  
**Driven to Discover**<sup>SM</sup>

# Background

- **Participants:** downtown Minneapolis commuters with monthly parking contract — “married” to drive-and-park routines.
- **Partner agencies:** ABC Ramps (City of Minneapolis), Metro Transit, MnDOT, FHWA.
- **Inquiry:** what happens to commuter behavior when flexibility is introduced to parking contracts?
- **Goal:** to demonstrate an innovative pricing strategy to determine 1) whether monthly parking contracts prevent commuters from using transit; 2) commuters’ responsiveness to various levels of incentives and flexibility being bundled into their commuting package.

# Background

- **Module I - Buying Flexibility:** a deeply discounted (\$20) transit pass bundled into monthly parking contract.
- **Module II – Marginal Rebate:** a free transit pass and a \$2 refund on days when transit is used.
- **Module III – PayGo:** a free transit pass and a “credit” for the amount of the parking contract. Participants are charged against the “credit” based on the marginal cost of their commute mode choice and the rest of the credit is paid back as refund.
- **Module IV – Disincentive Removal:** a free transit pass.

# Project Timeline

<b>Module</b>	<b>Phase</b>
Buying Flexibility	Spring 2010
Marginal Rebate	Fall 2010/Spring 2011
PayGo	Fall 2010/Spring 2011
Disincentive Removal	Spring 2011

# Participants Recruitment

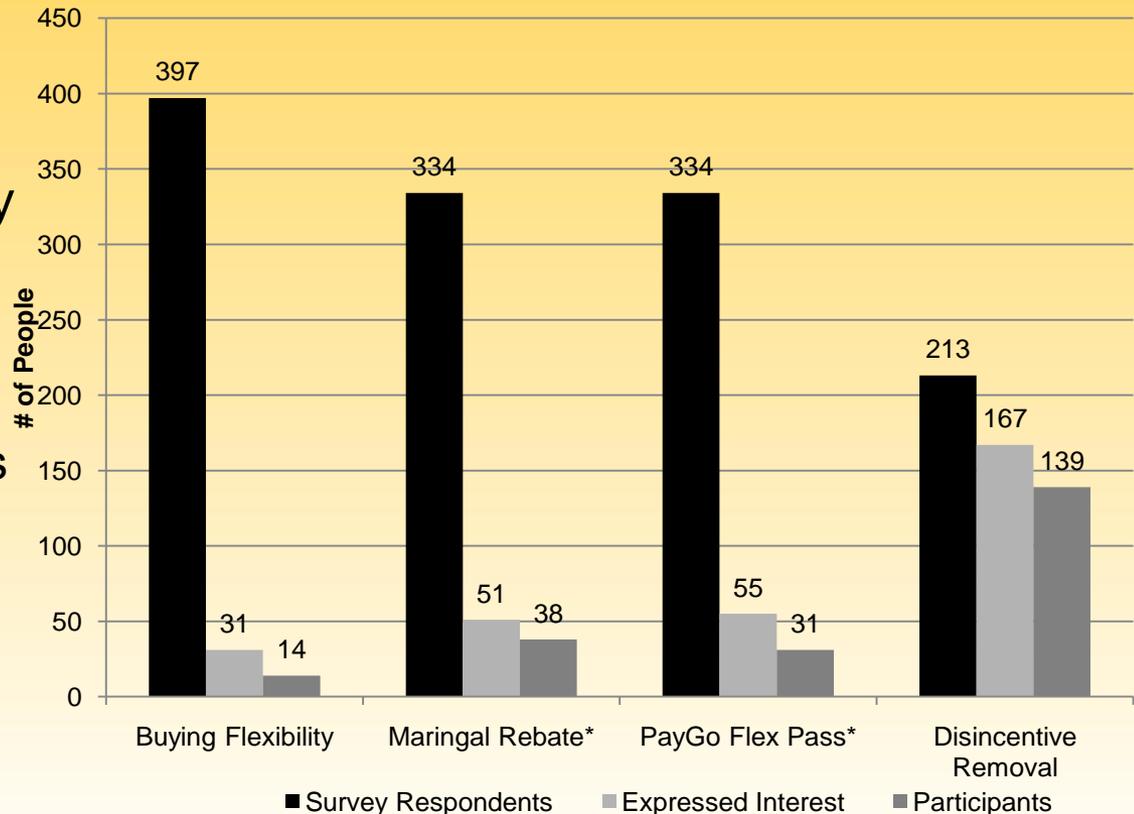
- **Recruitment Types:**
  - In-ramp outreach events
  - Email blasts to eligible contract holders, with link to an online survey
- **Recruitment results:**

<b>Module</b>	<b>Number of Participants</b>
Buying Flexibility	14
Marginal Rebate	38
PayGo	31
Disincentive Removal	139

# Recruitment Results

- Around 25% of all eligible participants responded to surveys
- Large drop off from survey response to actual participation, except for Disincentive Removal
  - Many don't see transit as an option
- Participation increases with incentive
  - Again, Disincentive Removal is an exception

## Participant Levels by Test Module



\*Marginal Rebate and PayGo surveys were conducted at the same time

# Modules I & II

- **Module I: Buying Flexibility**

- Participants sign up for a deeply discounted transit pass bundled into their monthly parking contract
- Discounted transit pass - \$20.00/month

- **Module II: Marginal Rebate**

- Provide participants with a free transit pass and are refunded the difference of the marginal parking cost and the transit fare on days when transit is used.
- Marginal costs: Parking - \$7.00; Daily transit fare - \$5.00

# Modules III & IV

- **Module III: PayGo Flex-Pass Rebate**

- Participants receive a free transit pass and a “credit” for the amount of the parking contract. Participants are charged against the “credit” based on the marginal cost of their commute mode choice.
- Marginal costs: Parking - \$7.00; Daily transit fare - \$5.00; Bicycle/Telework/etc. - \$0.00

- **Module IV: Disincentive Removal**

- Participants receive a free unlimited ride transit pass with their monthly parking contract.

# Module I (Buying Flexibility)

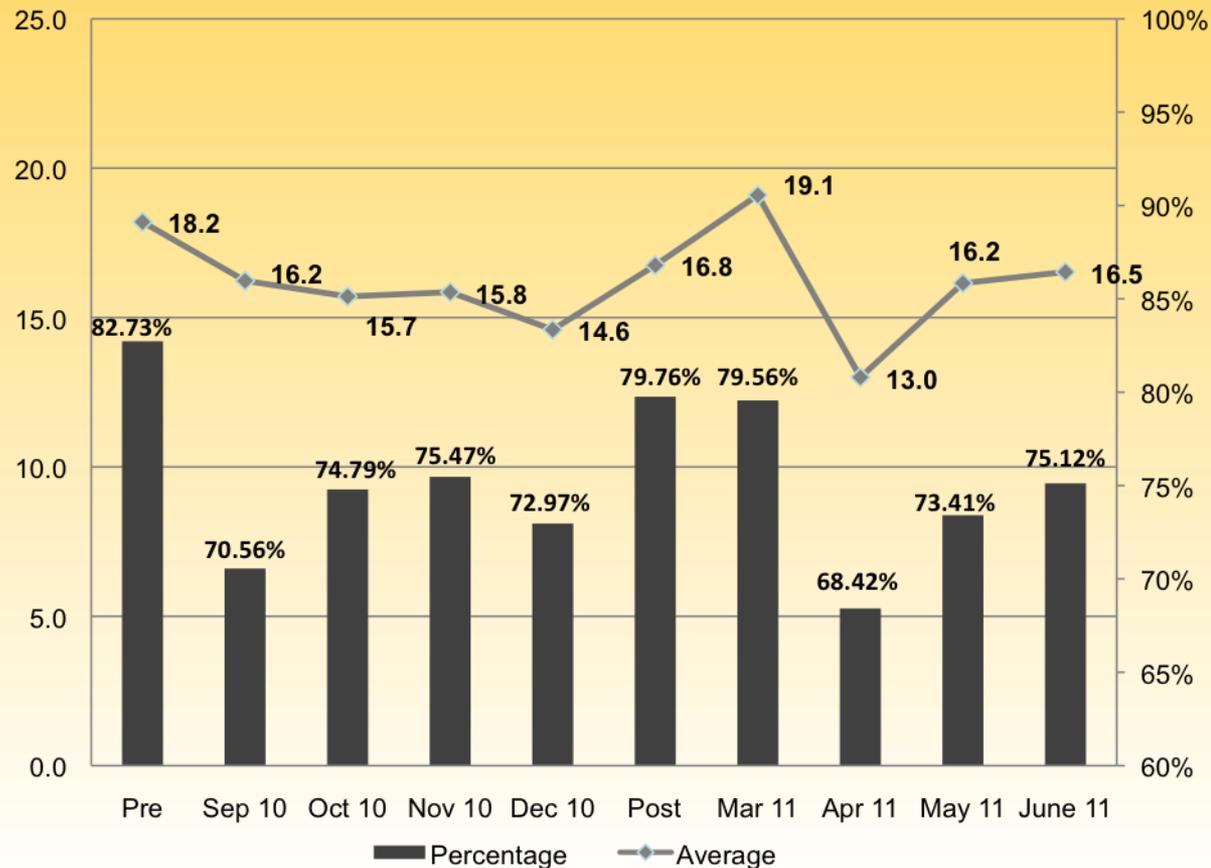
- **Key Results**

- Average transit use among participants was roughly 7 days/month
- Deeply discounted price of \$20/month is too high to attract significant participation – only 14 final participants
- Survey provided useful demographic and attitudinal data on parking contract holders
- Not directly comparable to other modules

# Module II (Marginal Rebate)

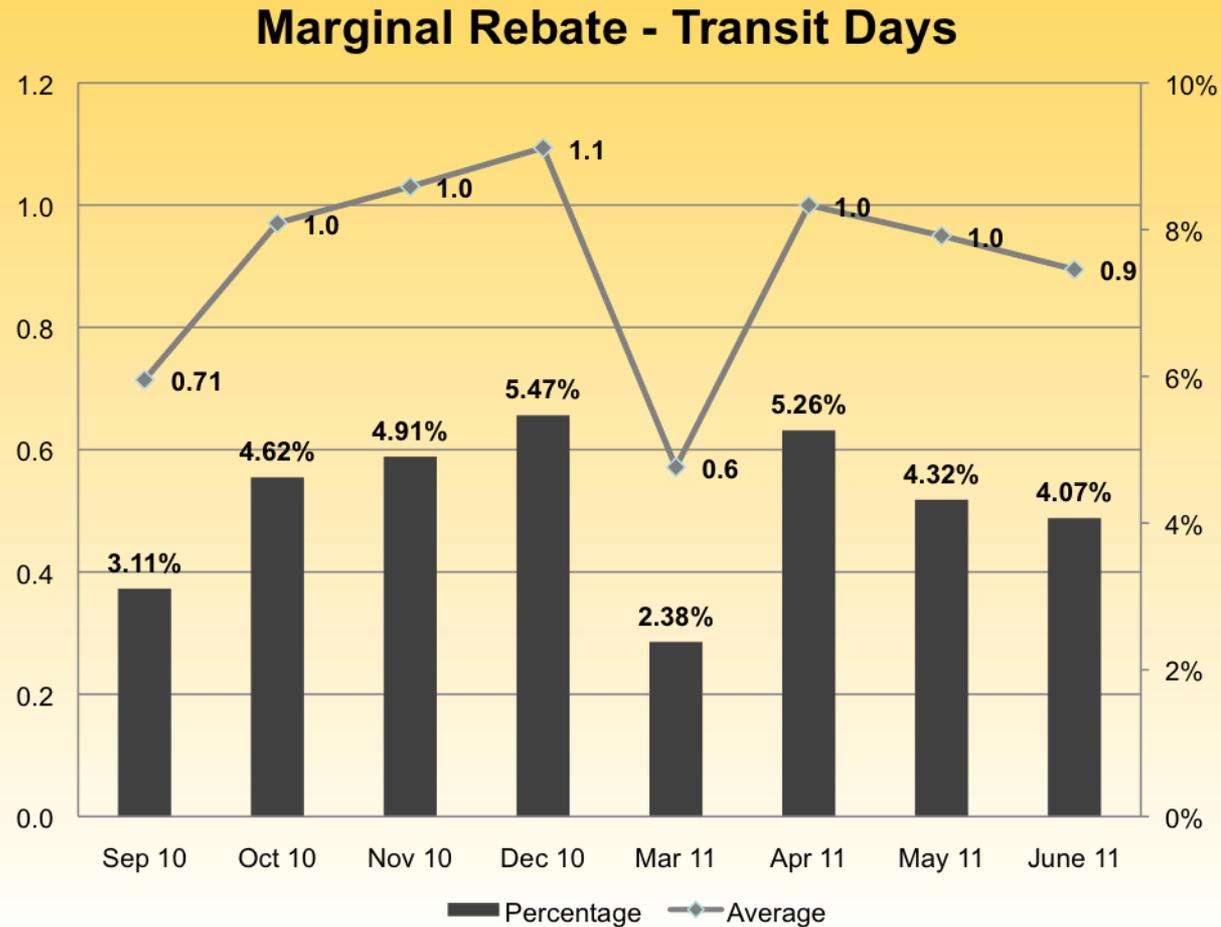
- The majority of commute trips were taken by car – roughly 74%
  - Average range from 13.0 to 19.1 days or 68.42% to 79.5% during study months
- Participant parking activity responded very sensitively to incentive
  - Bounce back to roughly 80% in “post” phase after incentives were lifted

### Marginal Rebate - Parking Days



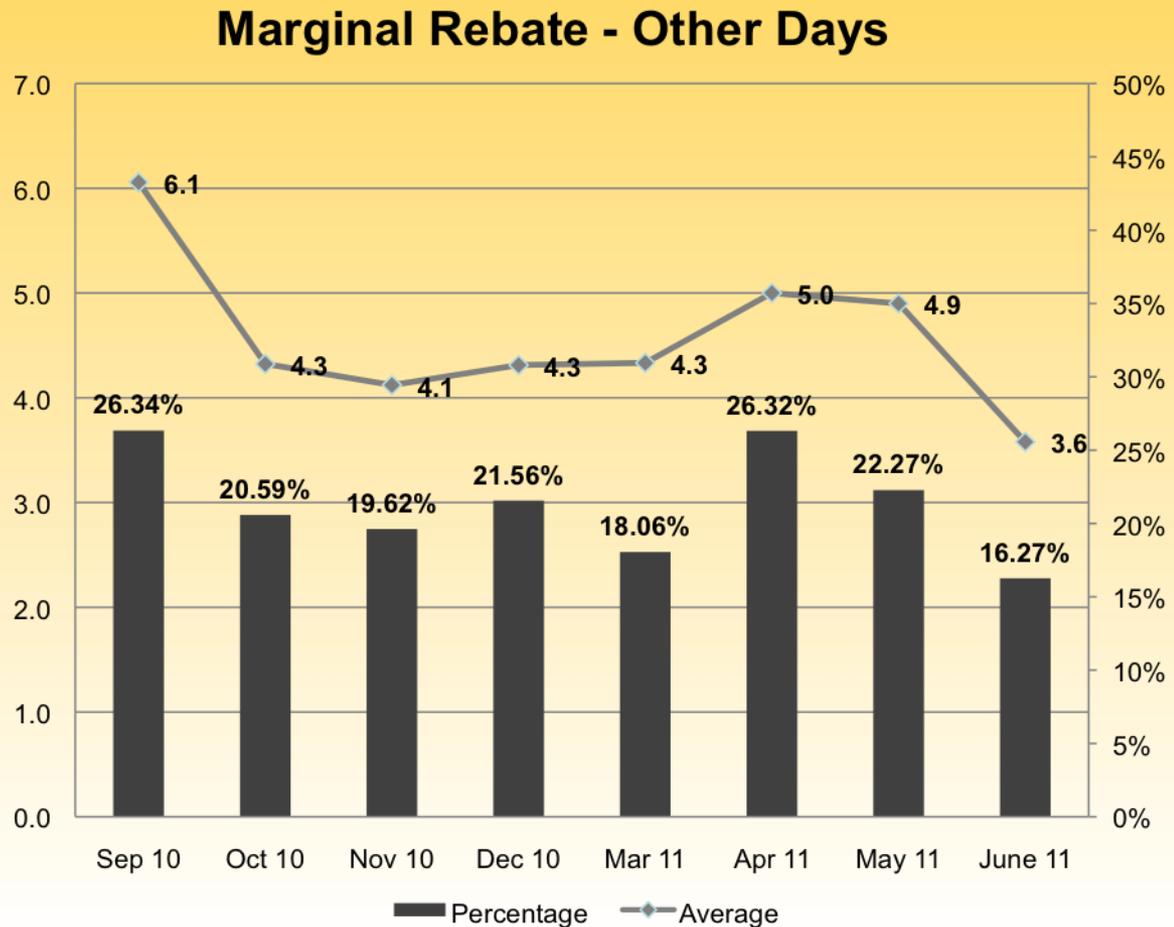
# Module II (Marginal Rebate)

- Transit was used for roughly 4.3% of commute days in study months
  - Average range from 0.6 to 1.1 days or 2.38% to 5.47%



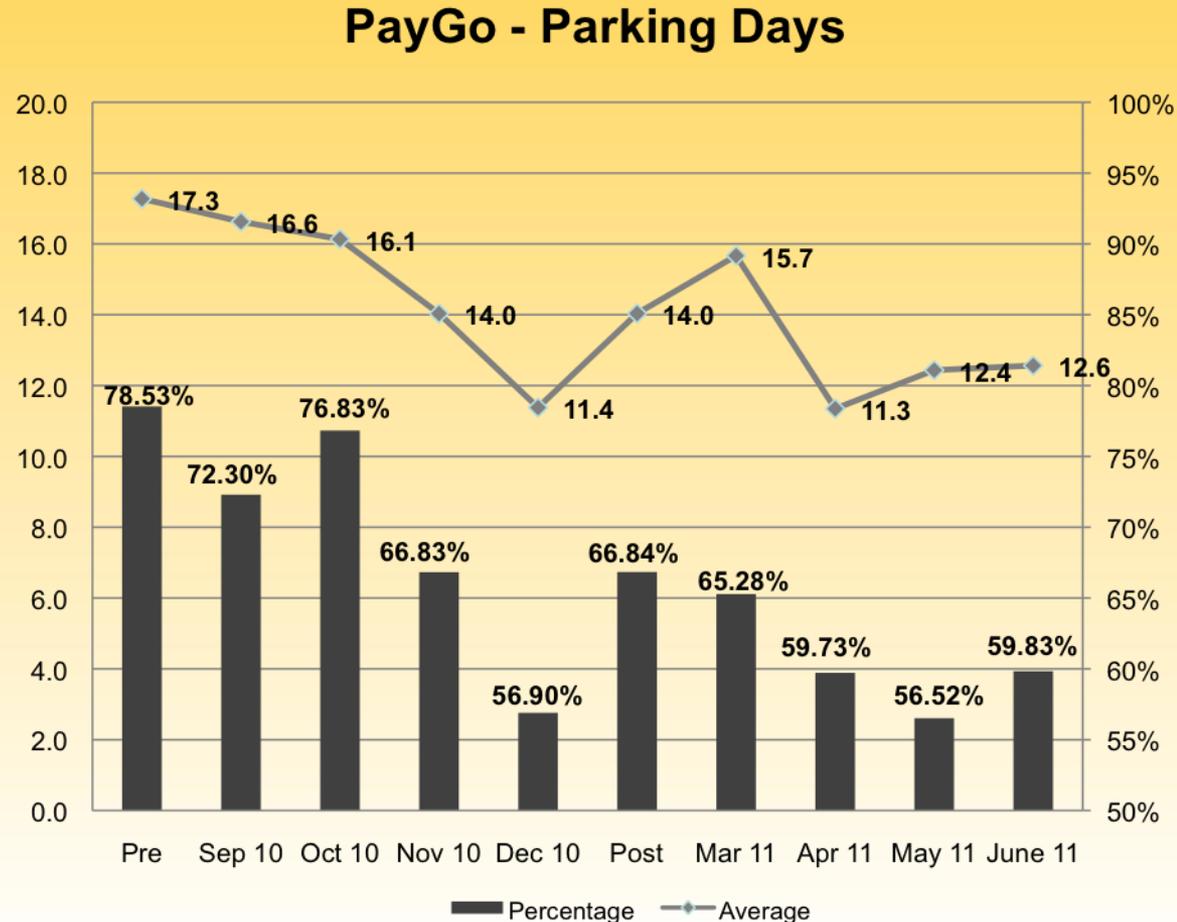
# Module II (Marginal Rebate)

- Other modes were used for roughly 21% of commute days in study months
  - Average range from 3.6 to 6.1 days or 16.27% to 26.34% during study months



# Module III (PayGo)

- The majority of commute trips were taken by car – roughly 64%
  - Average range from 11.3 to 17.3 days or 56.52% to 76.83% during study months
- Trend of decreased driving continued after incentive was lifted
  - 66.84% in “post” phase is a statistically significant decrease from 78.53 in “pre” phase

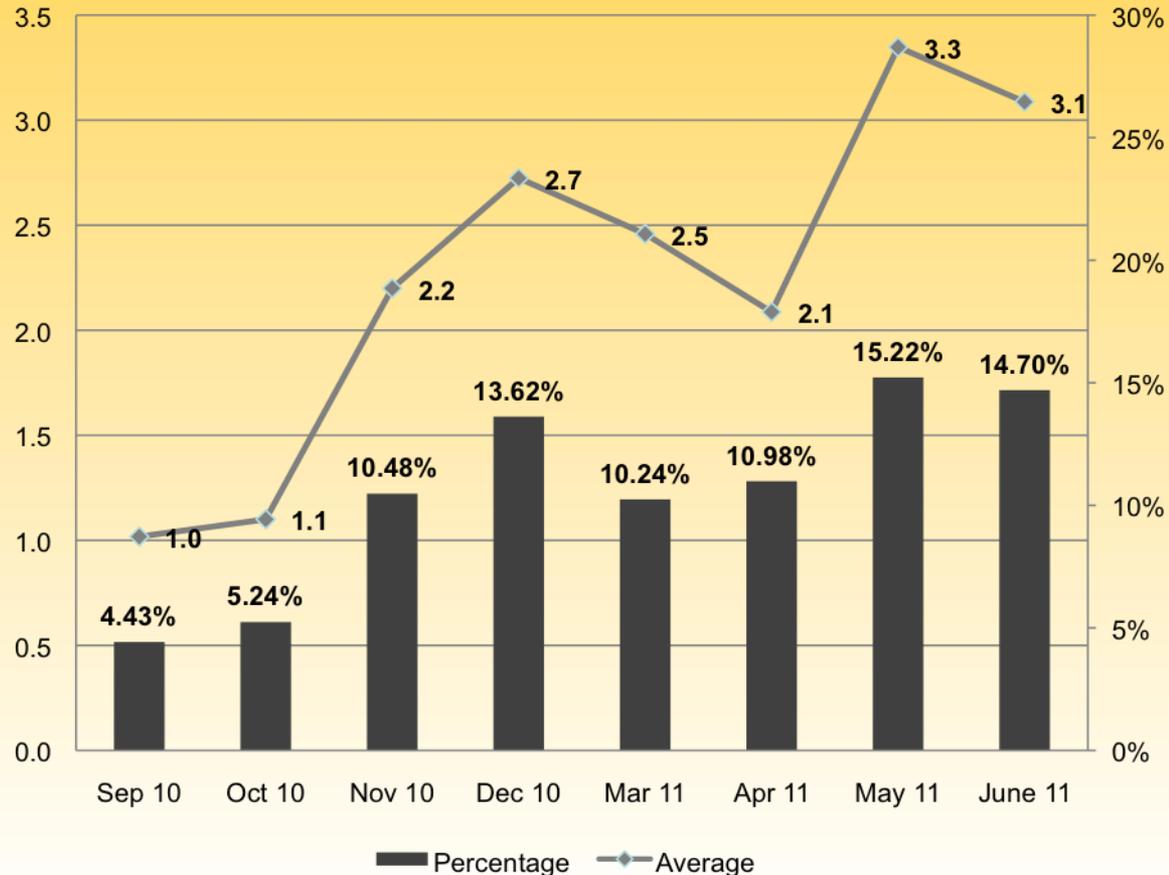


\*Sep 10 data pro-rated based on when participant registered for program

# Module III (PayGo)

- Transit was used for roughly 11% of commute days in study months
  - Average range from 1.0 to 3.3 days or 4.43% to 15.22% during study months

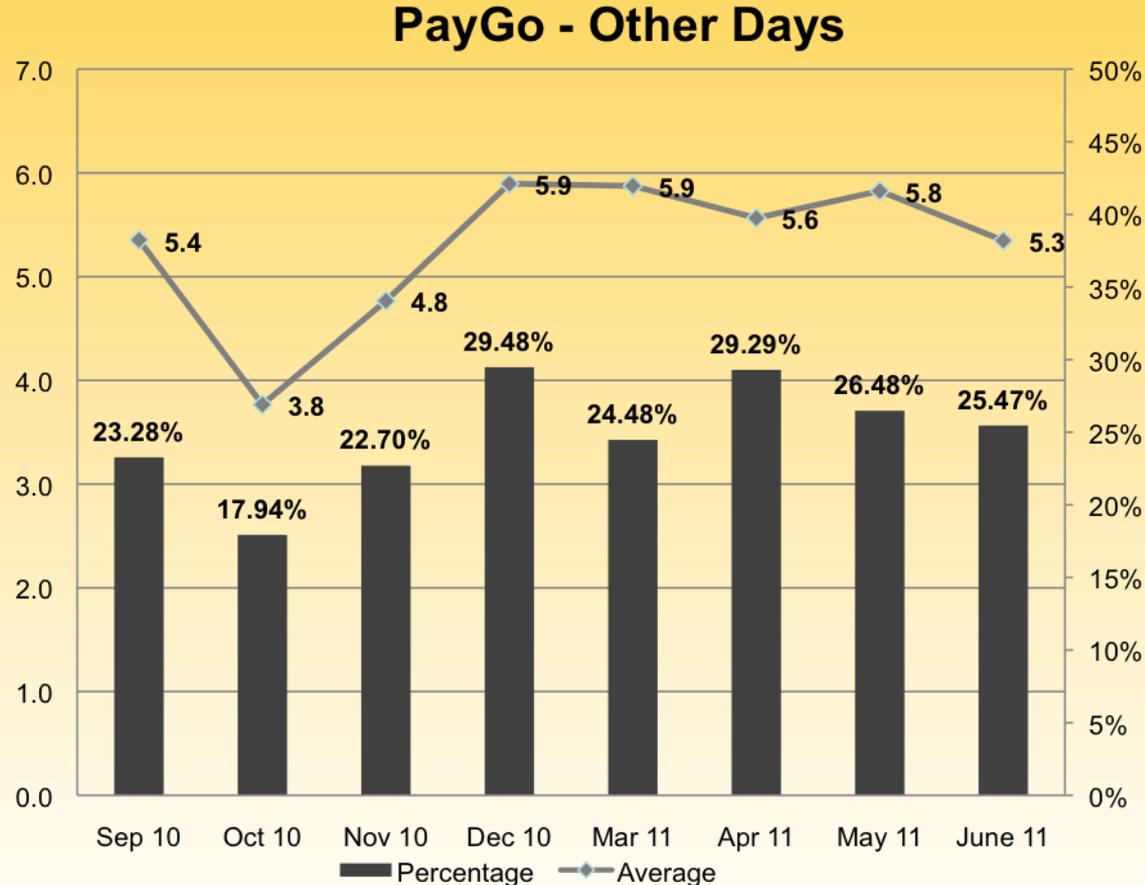
## PayGo - Transit Days



\*Sep 10 data pro-rated based on when participant registered for program

# Module III (PayGo)

- Other modes were used for 25% of commute days in study months
  - Average range from 3.8 to 5.9 days or 17.94% to 29.48% during study months



\*Sep 10 data pro-rated based on when participant registered for program

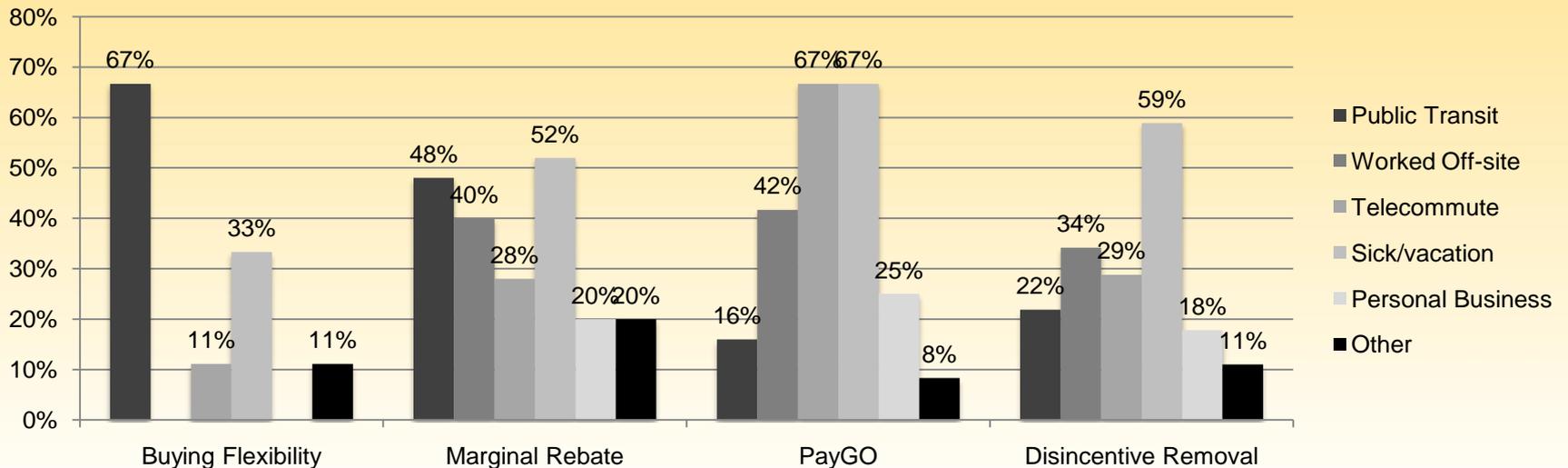
# Module IV (Disincentive Removal)

- 139 participants
- Key Finding
  - Free parking pass alone did not significantly impact commuter mode choice.
- Points of Interest:
  - The longer participants had been in the project, the more often they used the free transit pass to work (2.87% commute days per month in 3/11 up to 3.48% in 6/11).
  - Only 13% of participants used the transit pass for commute purposes. However, average driving days per month for those who used pass for commuting were much lower (61.24% driving days per month).

# Comparing All Modules

- The perception of transit as inconvenient was the top reason for transit not being used. Family responsibilities was second. (results from post-phase 2 follow-up survey.)
- Reasons for not using Parking Pass differ across modules. (results from post-phase 2 follow-up survey.)

## Reasons for Not Using Parking Pass



# Follow-Up Survey

- Surveys sent to participants after Phases II and III.
- Respondents include Marginal Rebate, PayGo, and Disincentive Removal participants.
- Respondent Demographics:

<b>Module</b>	<b>Number of Respondents</b>
Marginal Rebate	25
PayGo	12
Disincentive Removal	73
<b>Total</b>	<b>106</b>

# Follow-Up Survey: Employer vs. Employee Provided Parking

- Does your employer provide you with free or reduced parking at work?

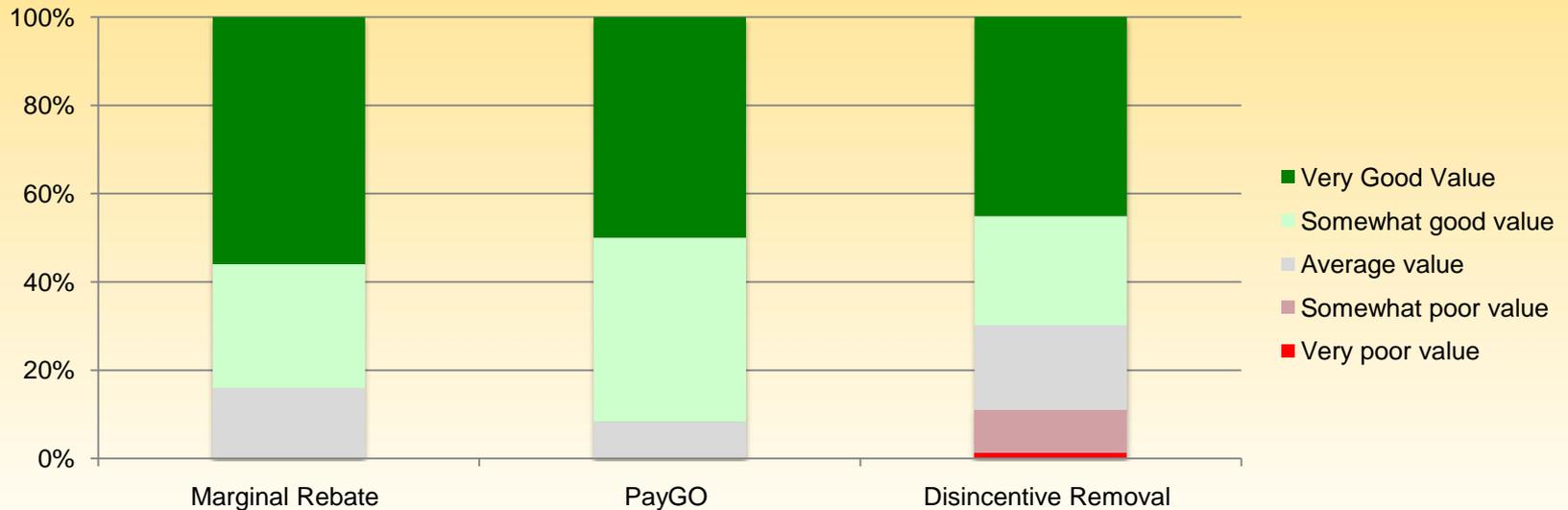
	Marginal Rebate	PayGo	Disincentive Removal	Total
Yes, free parking	17.9%	-	19.2%	17.9%
Yes, reduced parking costs.	12.3%	8.3%	13.7%	12.3%
No	69.8%	<b>91.7%</b>	67.1%	69.8%
Don't Know/Refused	-	-	-	-

Those with the most potential to recoup a personal investment chose to participate in the Module with the most incentive (PayGo).

# Follow-Up Survey: Perception of Parking Package Value

- Majorities of Marginal Rebate, PayGo, and Disincentive Removal participants found the programs to be of somewhat or a very good value (84%, 92%, and 70%, respectively).

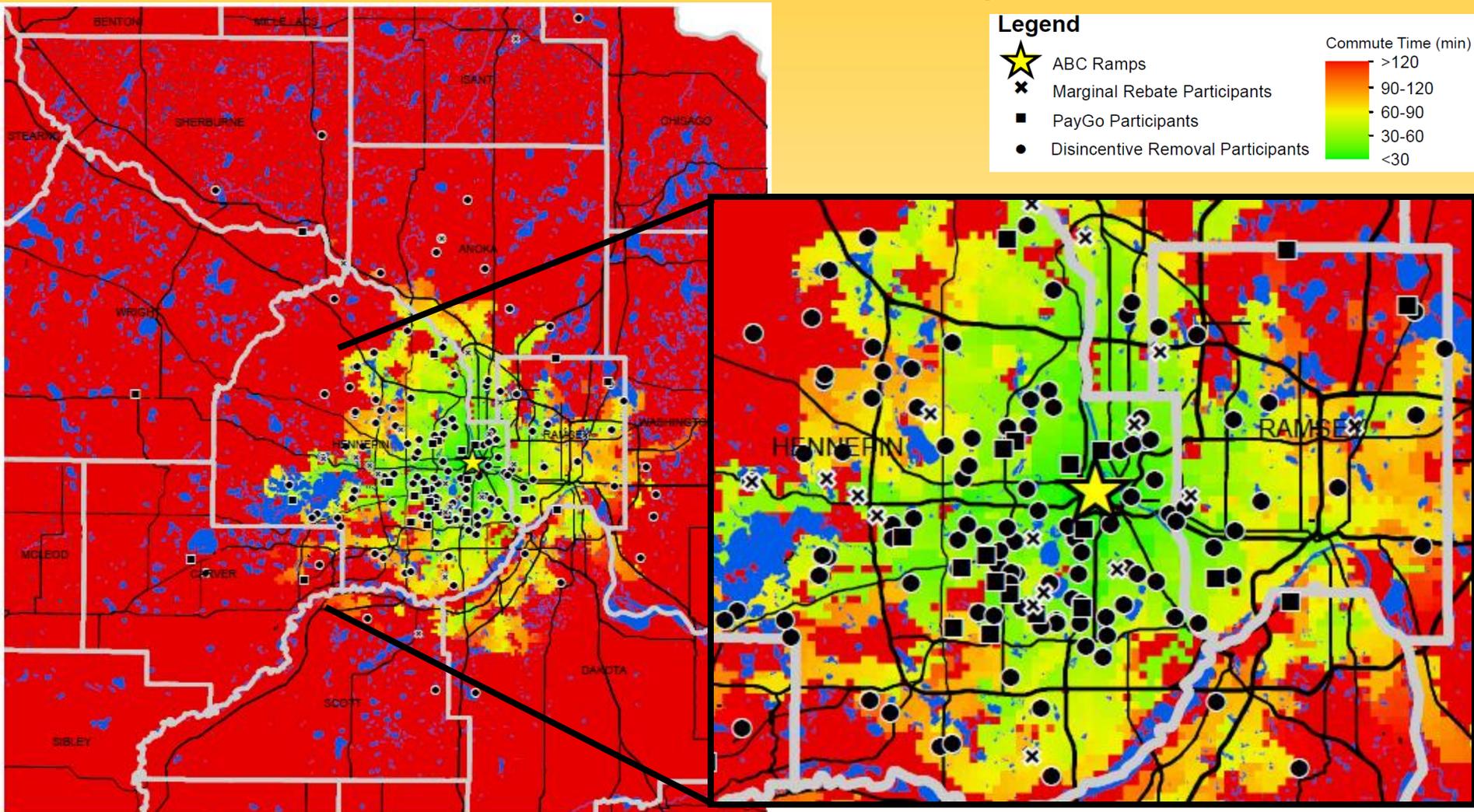
**Participants' Perception of Program Value**



# Key Findings

- The level of incentive positively correlates to the propensity for mode shift to occur.
- In order to shift mode choice of commuters with parking passes, incentive beyond a free transit pass is required.
- Parking pricing programs like these are best suited for parking constrained markets.
  - The cost of adding additional capacity may be greater than the cost to administer an incentive program.

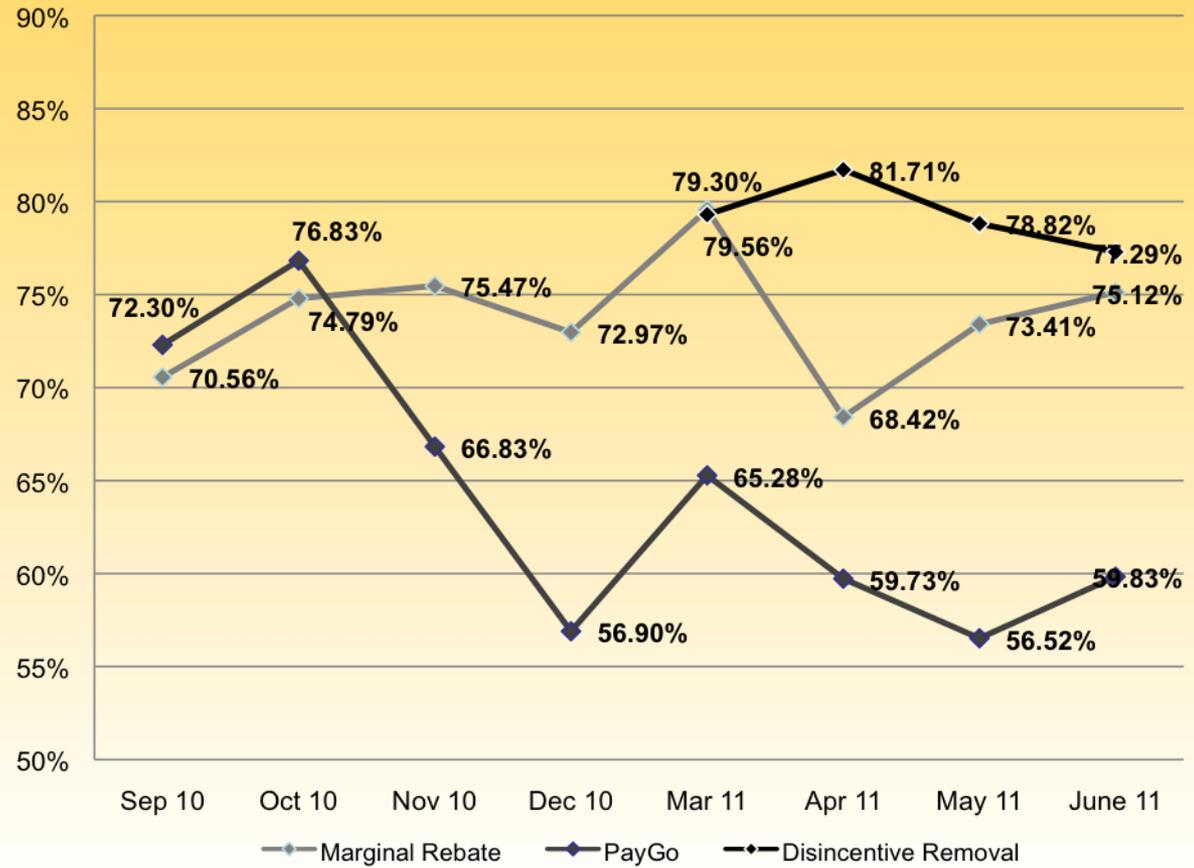
# Additional Analysis



# Comparing All Modules

- Propensity for mode choice behavior is directly connected to level of incentive
  - PayGo saw the greatest shift in commuter mode choice; Disincentive Removal saw the least
  - PayGo has highest level of incentive; Disincentive has the lowest

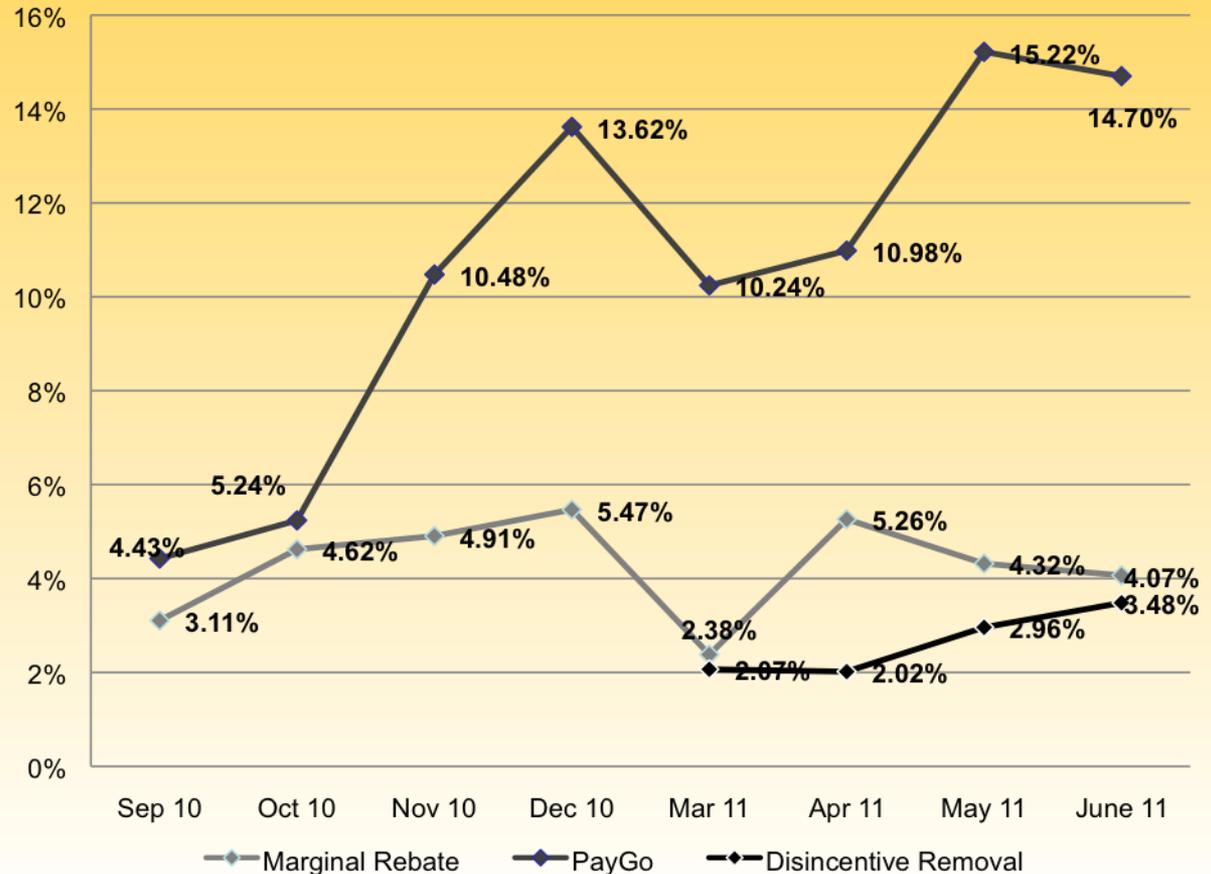
Proportion of Commute Days Driving to Work



# Comparing All Modules

- Incentive specific to transit not a primary motivating factor
  - PayGo saw greater transit use than Marginal Rebate despite equal rebate

Portion of Commute Days Using Transit



# Comparing All Modules

- Modes other than driving and transit were significant portions of commute days in all modules
  - PayGo was only module that offered incentive for other modes
  - PayGo saw the greatest use of other modes

Proportion of Commute Days Using Modes Other Than Driving or Transit

