

Innovative Parking Pricing Demonstration







CTS 22ND TRANSPORTATION
RESEARCH CONFERENCE

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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’ tipping point for price acceptability in bundling flexibility into their commuting package


Test Modules




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



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

Participants Recruitment





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

Module	Number of Participants
Buying Flexibility	14
Marginal Rebate	38
PayGo	31
Disincentive Removal	139

Recruitment Results



 Around 25% of all eligible participants responded to surveys

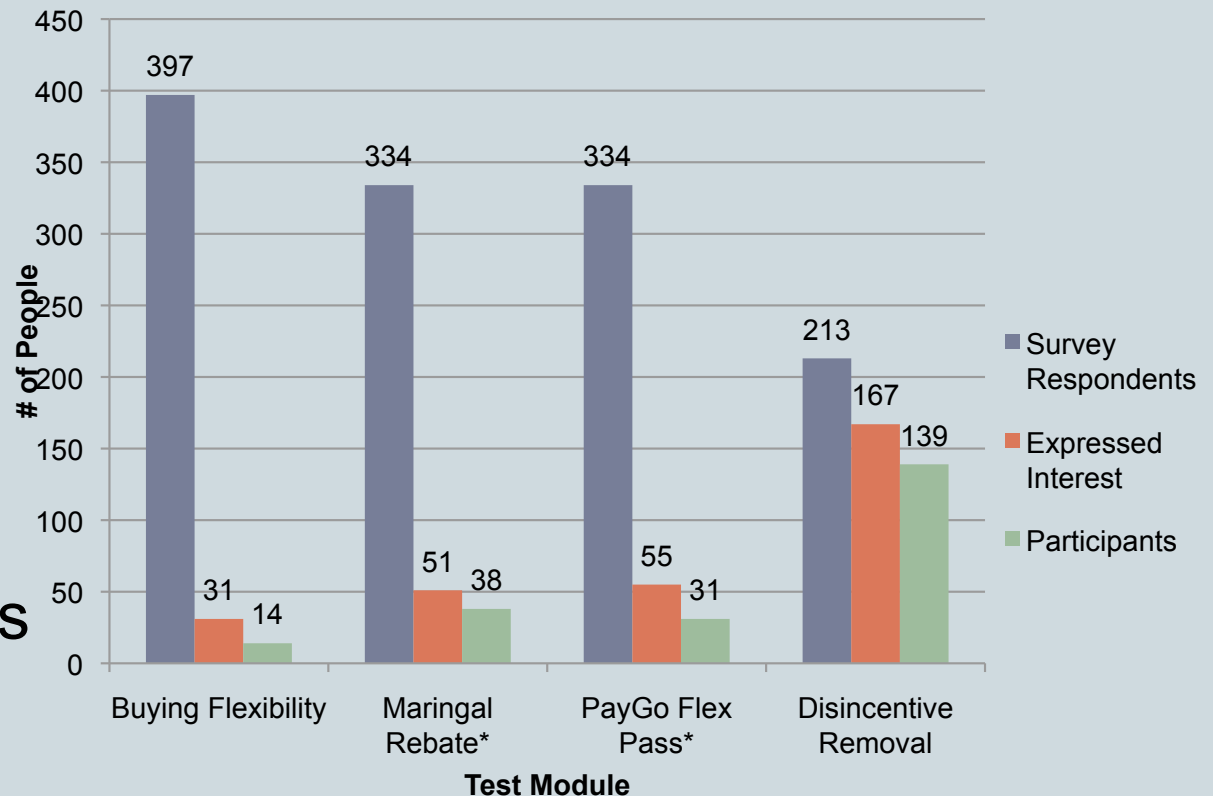
 Large drop off from survey response to actual participation, with the exception of Disincentive Removal

- 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




Module I (Buying Flexibility)



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



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



Modules II & III



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

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 II (Marginal Rebate)




 The majority of commute trips were taken by car

- Roughly 15 days per month

 The transit share of commute trips held relatively steady

- Range from 0.4 days per month to 1.9 days per month
- Average 1.08 days per month

 The number of “other” days increased in winter months

- However, not statistically significant


Average Monthly Commute Days by Mode - Marginal Rebate




* Total number of days in a month may not add up to the same, because different holidays were taken out and the first month was prorated based on each participant's actual enrollment date.

Module II (Marginal Rebate)




 The minimum rebate each month was always \$0.00

- At least one person per month did not use transit

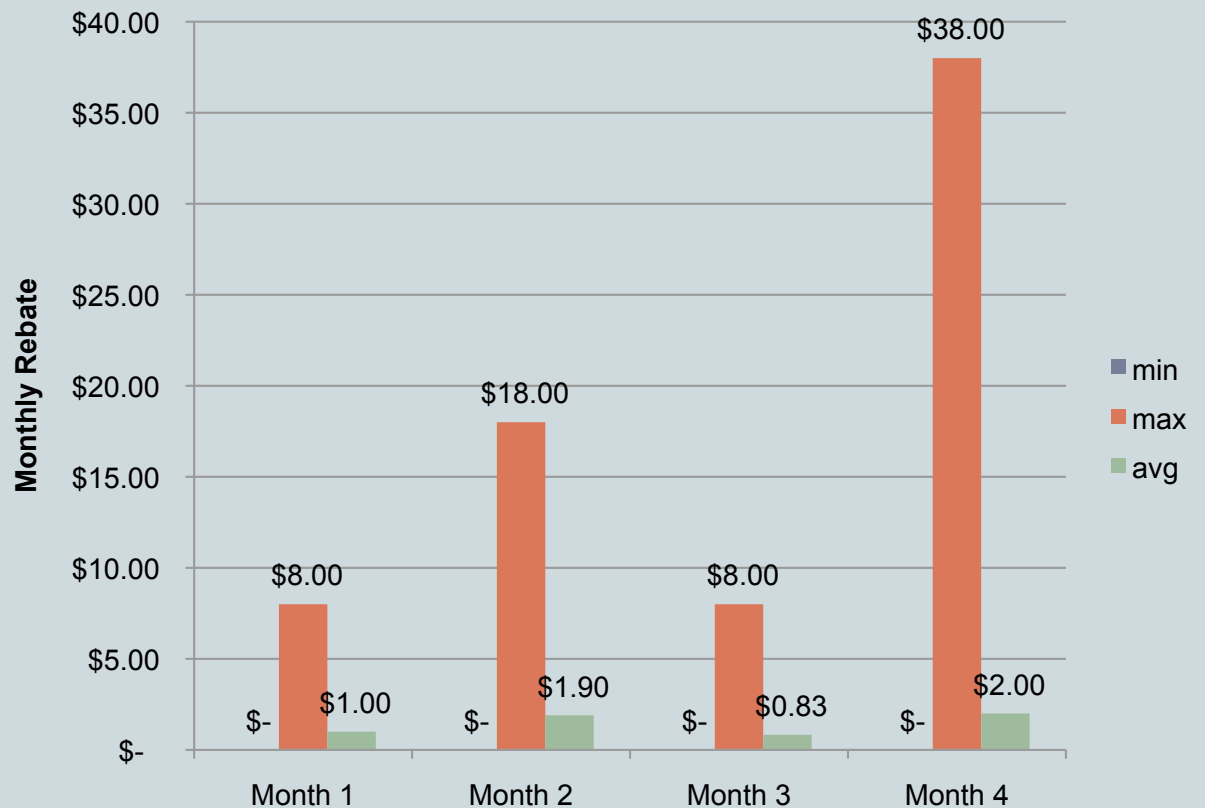
 The maximum rebate varied by month

- Minimum \$8.00, maximum \$38.00

 The average monthly rebate held relatively steady


- Average \$1.78 per month across all participants

Monthly Rebates - Marginal Rebate




Module III (PayGo)




 The majority of commute trips were taken by car

- Statistically significant drop in month 3 and month 4.

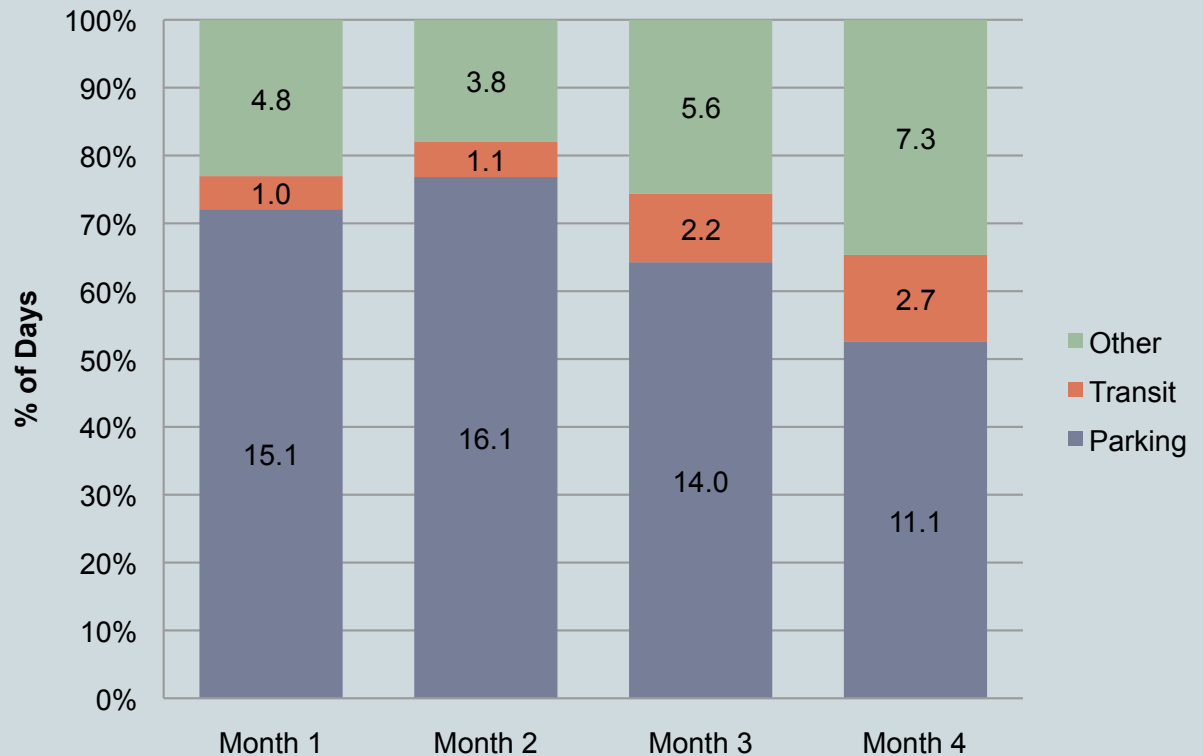
 The transit share of commute trips increased each month

- However, not statistically different

 The number of “other” days increased in winter months

- Average of 7.3 days in month 4
- Average 5.4 days per month


Average Monthly Commute Days by Mode - PayGo




*Month 1 data pro-rated based on when participant registered for program


Module III (PayGo)



 The minimum rebate each month was \$0.00 except for month 3

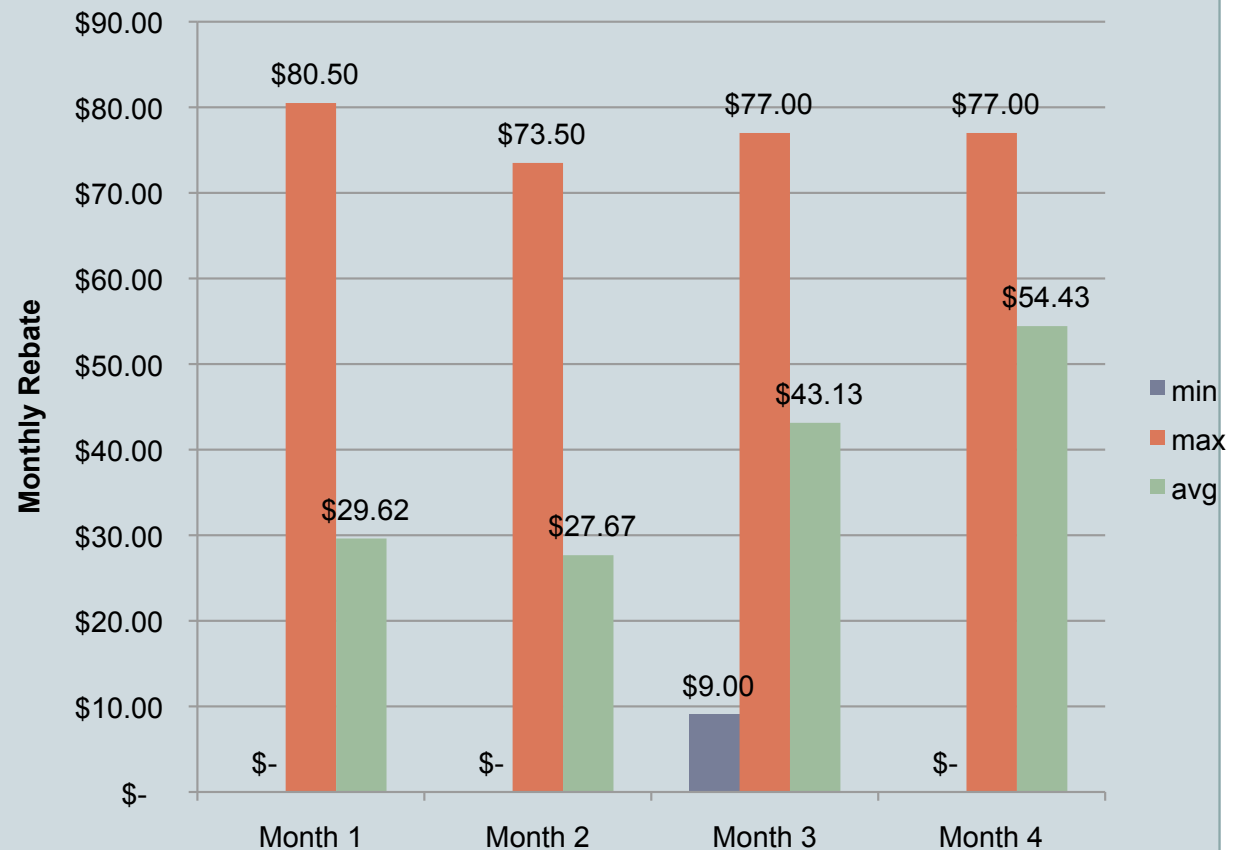
 The maximum rebate was always half of contract cost

 The average rebate is \$37.12 per month

 The average monthly rebate increased in the winter months

- More people taking vacations

Monthly Rebates - PayGo



Historical Comparison



Historical Comparison

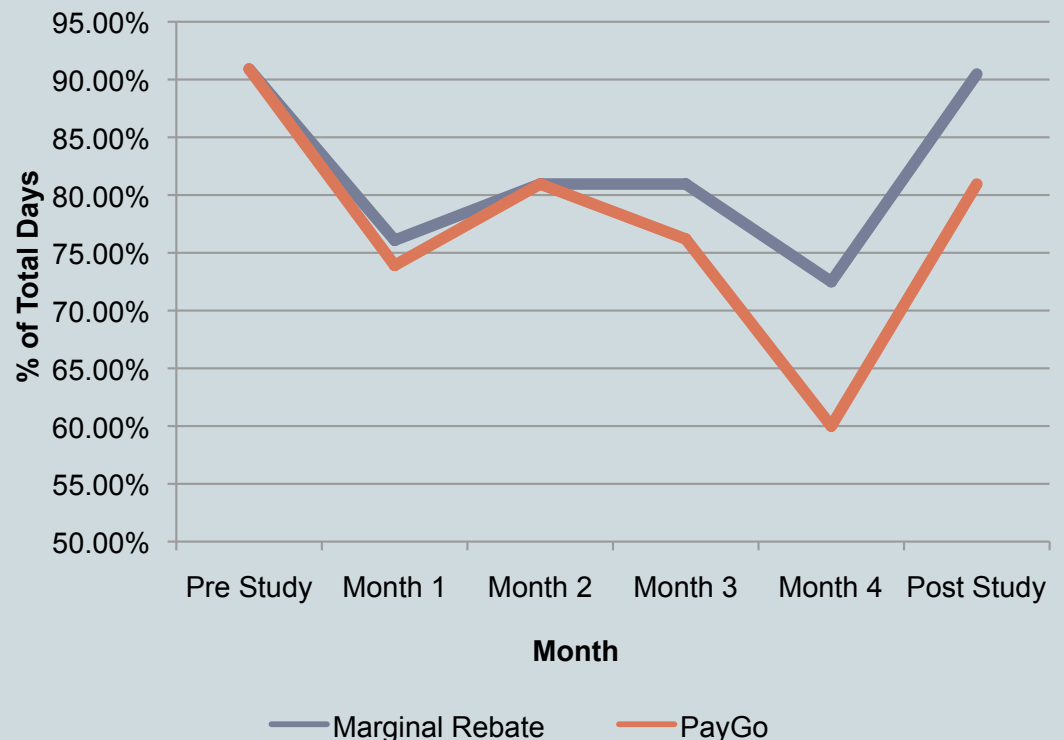
For Marginal Rebate group:

- Decrease in driving days in month 2, 3 and 4
- Bounce back to original level of driving after the project

For PayGo Group:

- Decrease in driving days in month 3 and 4
- Did not bounce back to original level of driving 1 month after the project

Median Days Parking as Percent of Total Days



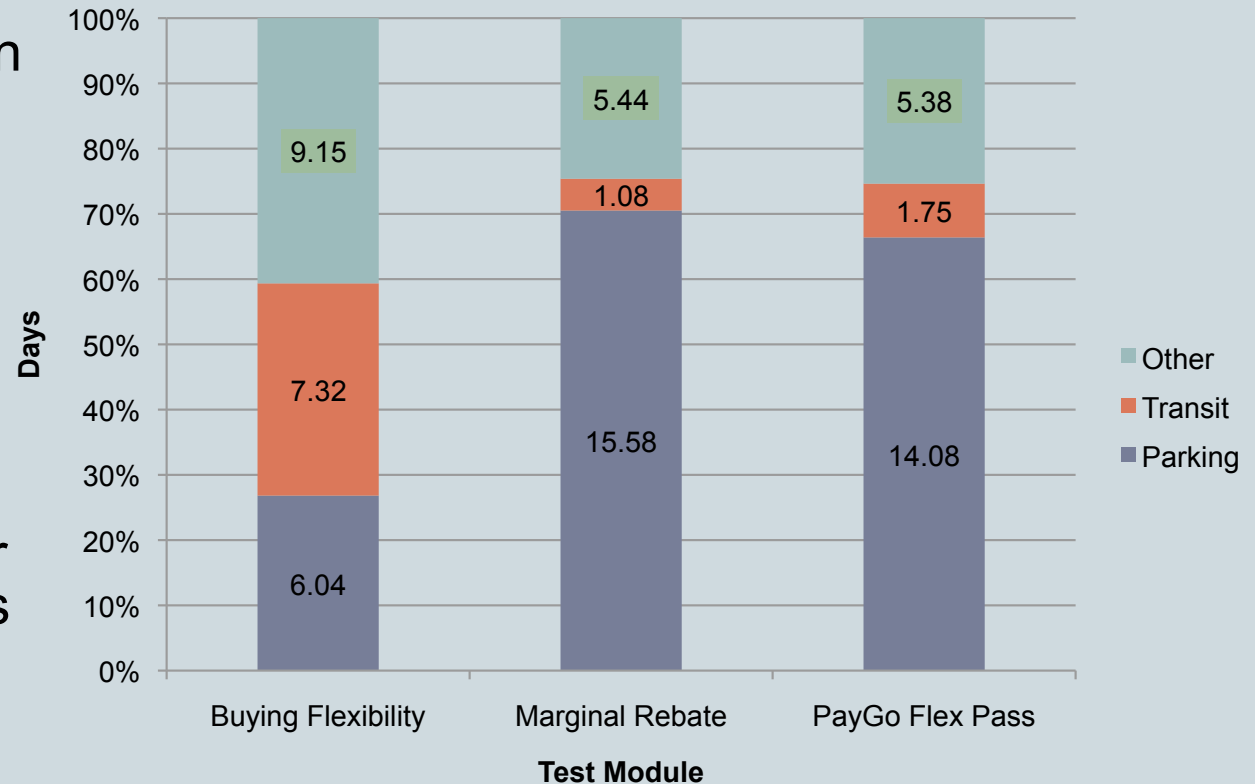
Comparing All Modules



Travel behavior change varies with incentive and investment

- Transit use highest in Buying Flexibility (most investment)
- Auto use highest in Marginal Rebate
- When compared to Marginal Rebate, PayGo (most incentive) demonstrated higher use of “other” modes


Average of Monthly Commute Days by Mode




* Total number of days in a month may not add up to the same, because different holidays were taken out and the first month was prorated based on each participant's actual enrollment date.

Cost-Benefit



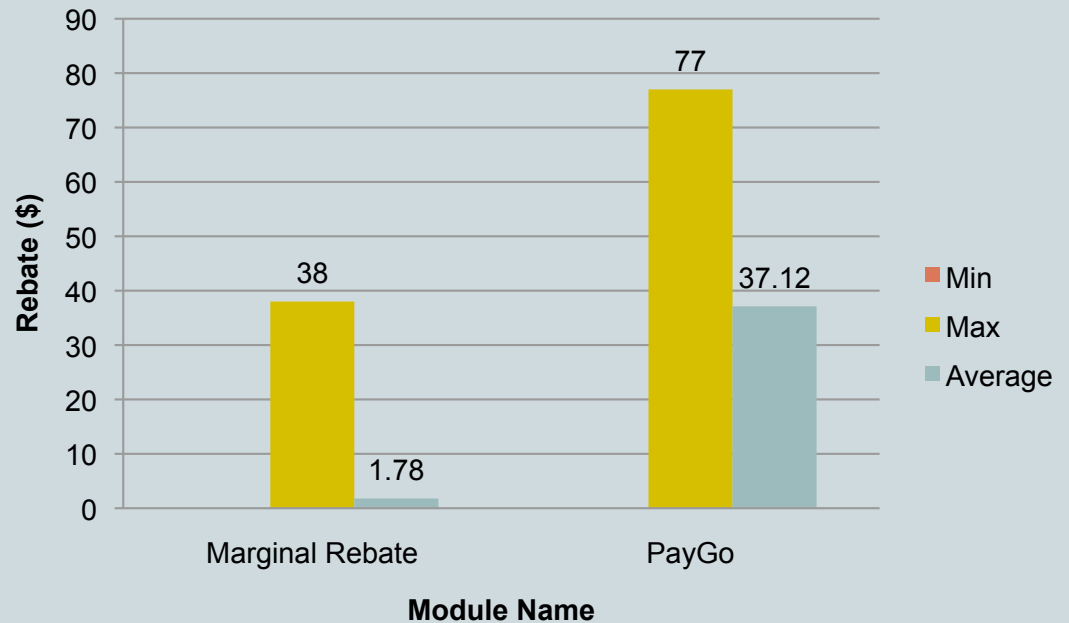
 Significantly higher rebates per participant in PayGo

- Average of \$37.12 per month verses \$1.78 per month in Marginal Rebate

 Cost per non-parking day roughly 11 times higher in PayGo

- Marginal Rebate: \$3.50 per non-parking day
- PayGo: \$37.43 per non-parking day






Rebate Comparison



Follow-up Survey Results



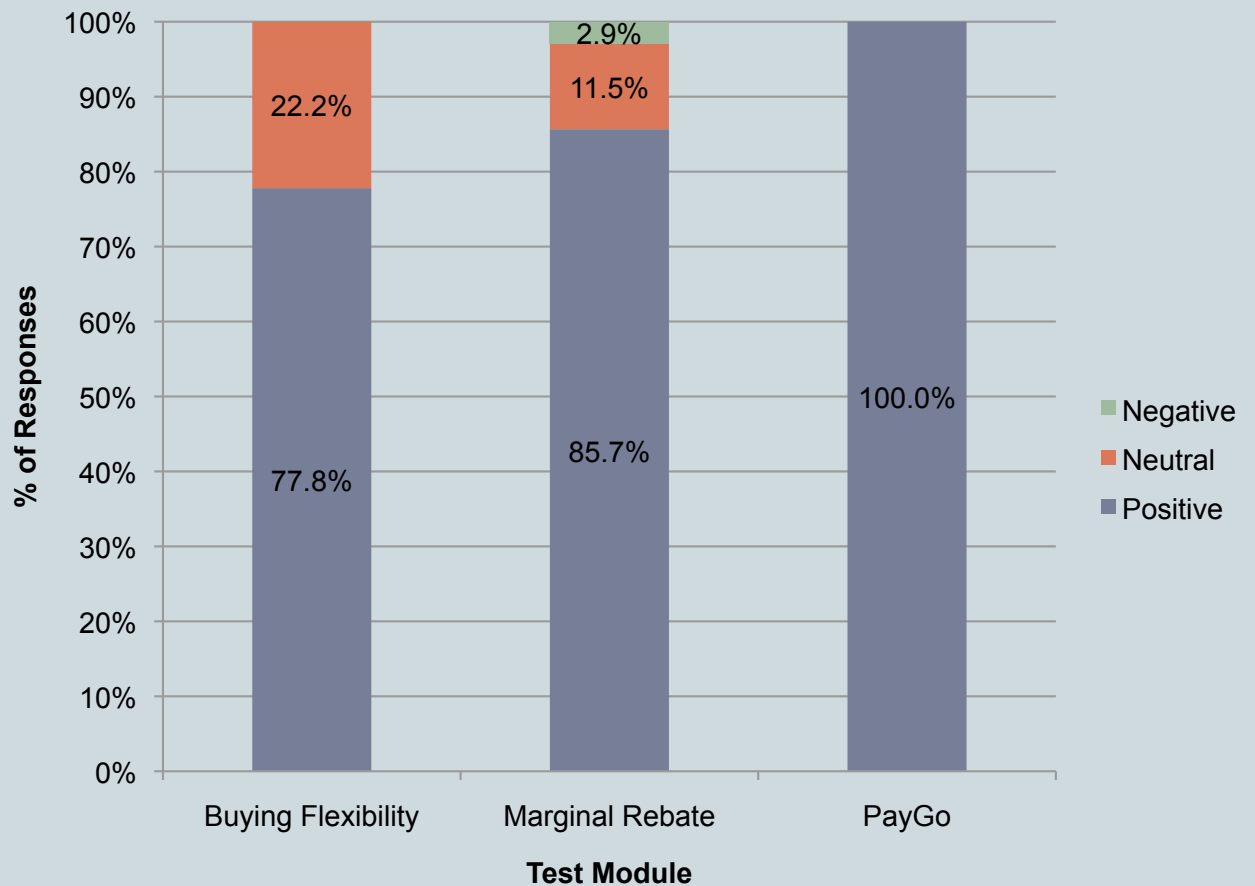
Follow-up Survey sent to all participants


-  Provide feedback on Modules I, II and III
-  High response rates for all modules
 -  Buying Flexibility – 71% of participants responding
 -  Marginal Rebate – 95% of participants responding
 -  PayGo – 58% of participants responding


Follow-up Survey Results



Overall Perception of Module




 Positive perception increased with incentive

 Top reasons noted for the test modules being appealing


- *Flexibility*
- *Monetary incentive/savings*
- *Encouraged mode shift*

Follow-up Survey Results



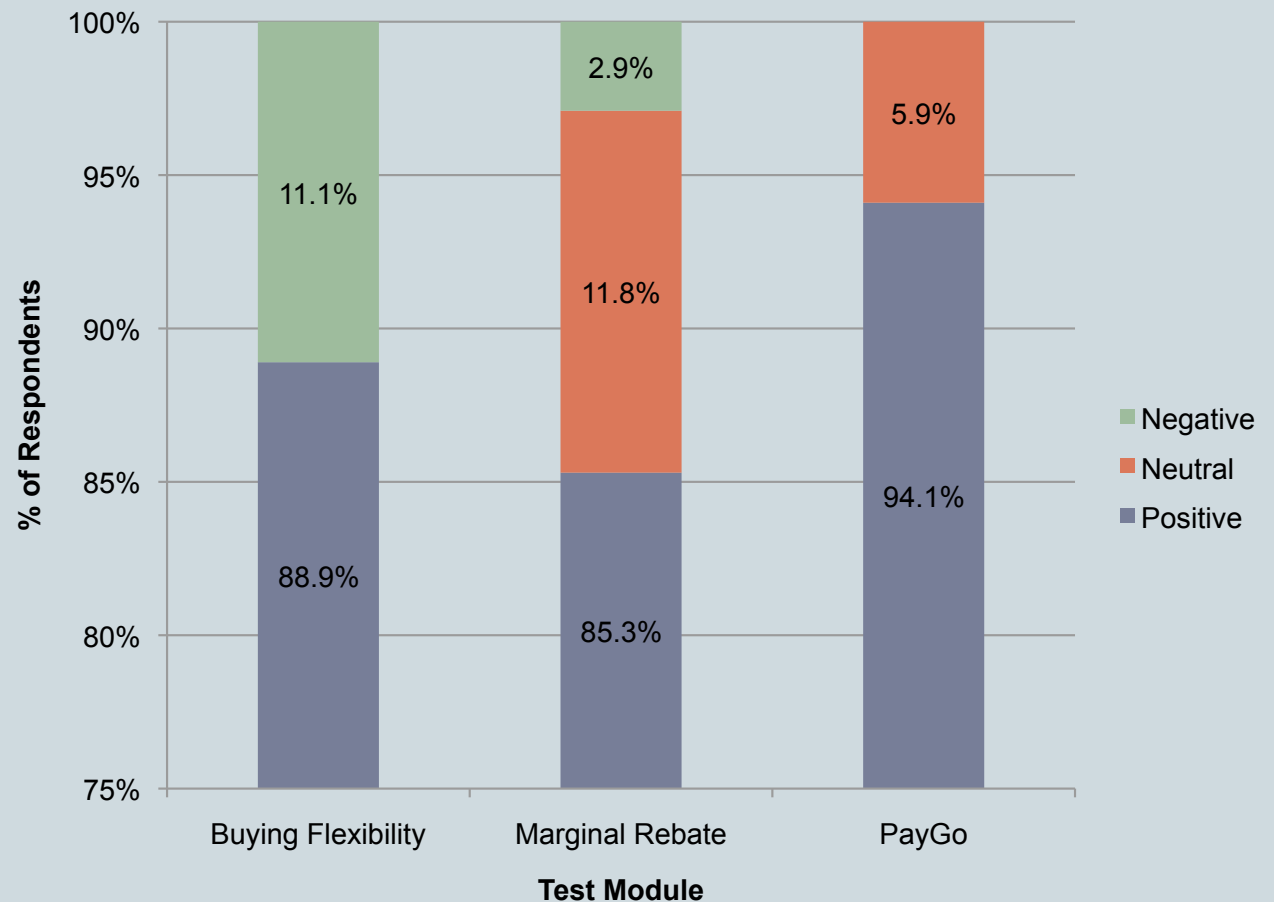
 PayGo was seen as the program with the most value

- 94.1% of respondents viewed the value positively

 Top reasons noted for the test modules being “better than expected”

- *Convenience of transit/took transit more*
- *Simple concept/ease of use*
- *Flexibility/mode choice options*

Perception of Value

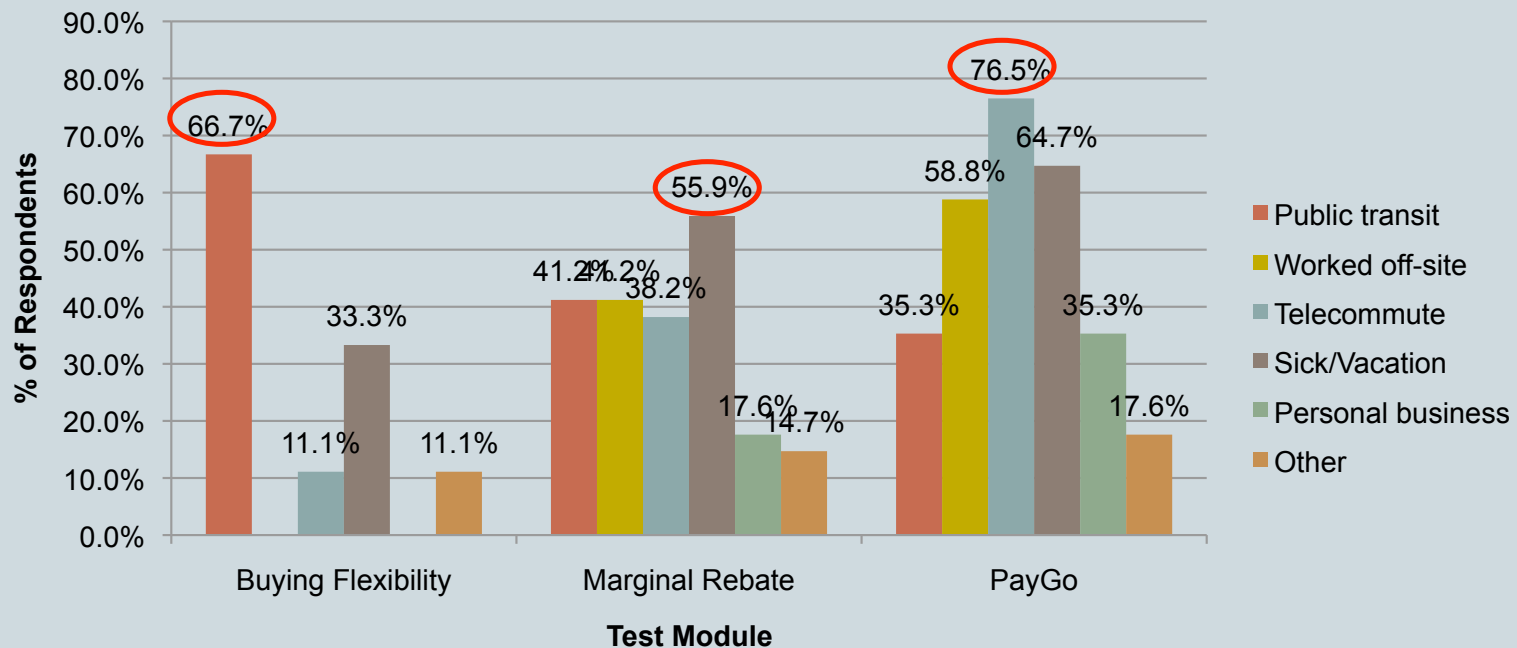


Follow-up Survey Results




- ❏ The perception of transit as inconvenient was the top reason for transit not being used. Family responsibilities was second
- ❏ Reasons for not using Parking Pass differ across modules.


Reasons for Not Using Parking Pass




Phase III – Ongoing



-  The same Marginal Rebate and PayGo Group as in Phase II: to enable a longitudinal study to learn if there is a long-term learning effect

-  A large free transit pass group: to compare Disincentive Removal group with Marginal Rebate and PayGo and to learn whether rebate as a financial incentive really reduce parking or a free transit pass is enough

-  Consideration of other factors affecting commuting behavioral choice:
 - *trust in the project*
 - *change in sales pitch*
 - *gas price*