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KNOWLEDGE FOR ACTION
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WCAI RESEARCH OPPORTUNITY

Analysis of a Coalition Loyalty Program

Introductions

Angela

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Team Leader, Customer Analytics

Lukas

Head of Information Technology & Projects

Ben Adams

Research Director, WCAI

Elea McDonnell Feit

Executive Director, WCAI



A Note on Press & Public

This webinar is intended for **researchers & scholars**

- Questions on program: wcai-research@wharton.upenn.edu
- Press contacts: wcai-press@wharton.upenn.edu



A Note on Process

Today, we are going to describe a data set that the project sponsor is making available for research. To gain access to the data for your research, you can submit a proposal to WCAI.

- Proposals expected from academics and researchers, but non-academics are welcome to submit.
- Sponsor has some questions of interest, but is also interested in questions that YOU want to research. Don't be limited to the sponsor's questions.
- We strive to keep the proposal process as efficient as possible. Proposals should be submitted online, succinct and follow the WCAI format (described at the end).



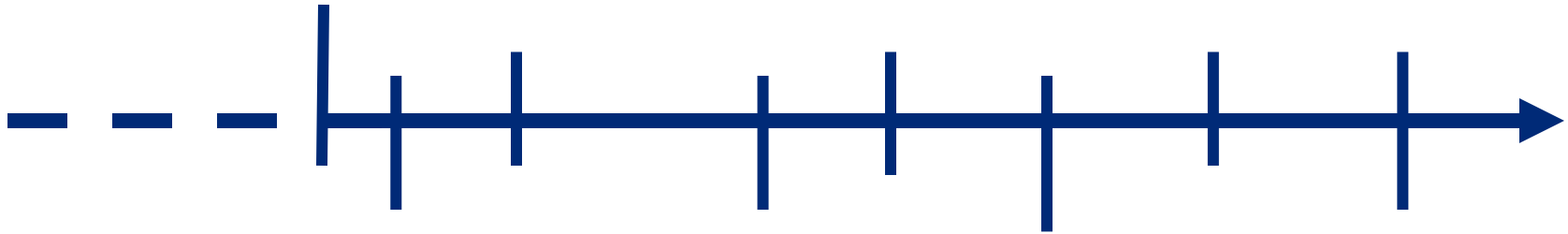
A Note on the Sponsor

This research opportunity is sponsored by a European Coalition Loyalty Program.

- Awarded research teams will be introduced directly to the company
- Sponsor and its Retailers must **not** be named in any publication or presentation
- Proposals from any country are welcome
 - European researchers especially encouraged
 - Closing symposium may be held in Europe

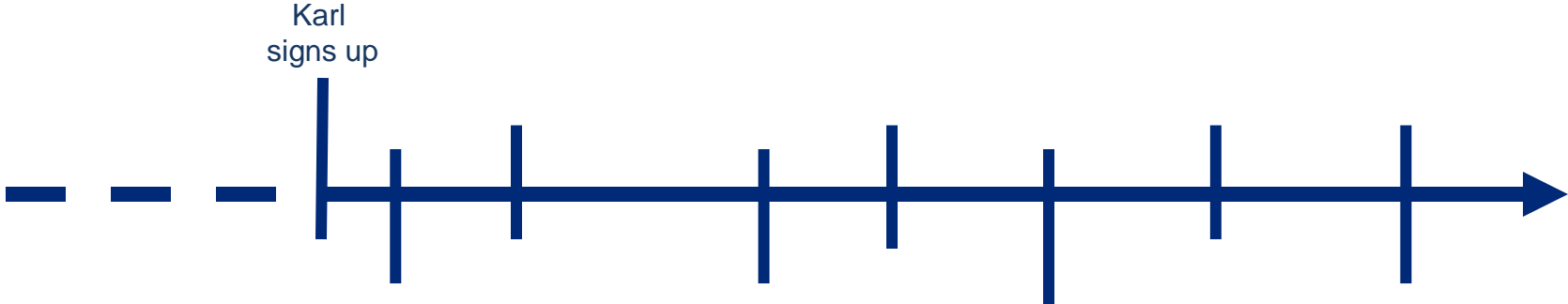


A Coalition Loyalty Program

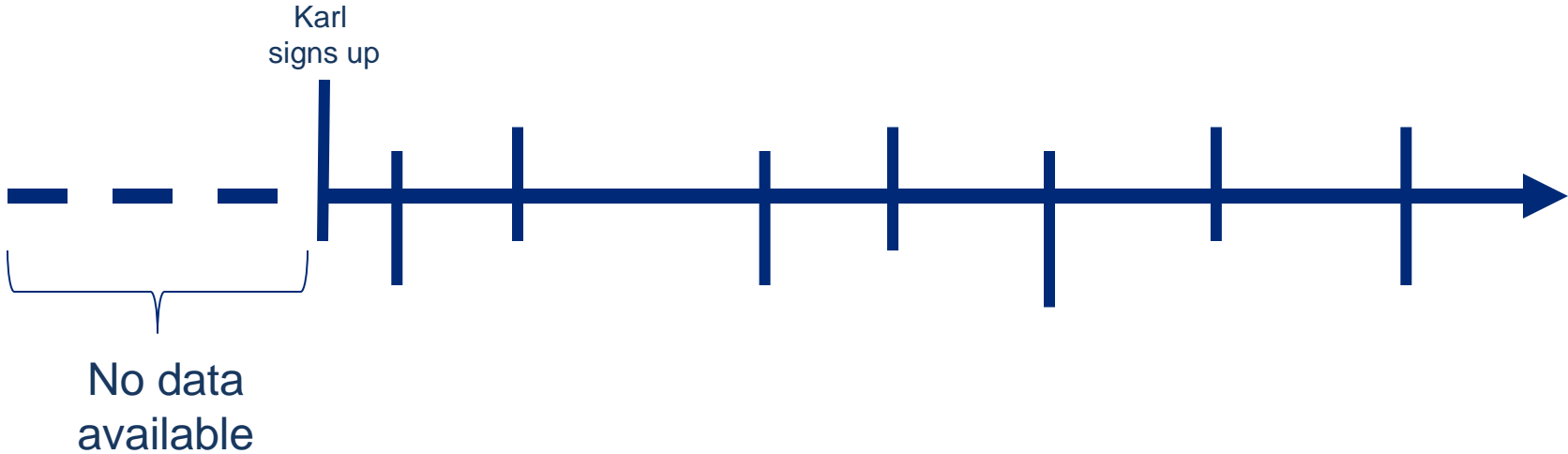


- Customers – aka “**Cardholders**” – sign up for a loyalty program combined with a credit card, any number of cardholders (uniquely tracked) under the same **account**.
- Credit card is used for **transactions** as any other typical card, including purchases, cash withdrawal, etc.
- Purchases can be made anywhere, but tracked by **partner retailers** (if in-network) or “**out of network**” otherwise.
- As card is used, account accumulates “**points**” according to a schedule, points to be redeemed for “**cash vouchers**”, can be used to purchase additional goods & services at selected **partner retailers**.
- Program sends **outbound marketing campaigns** to encourage signup, purchases and voucher usage.

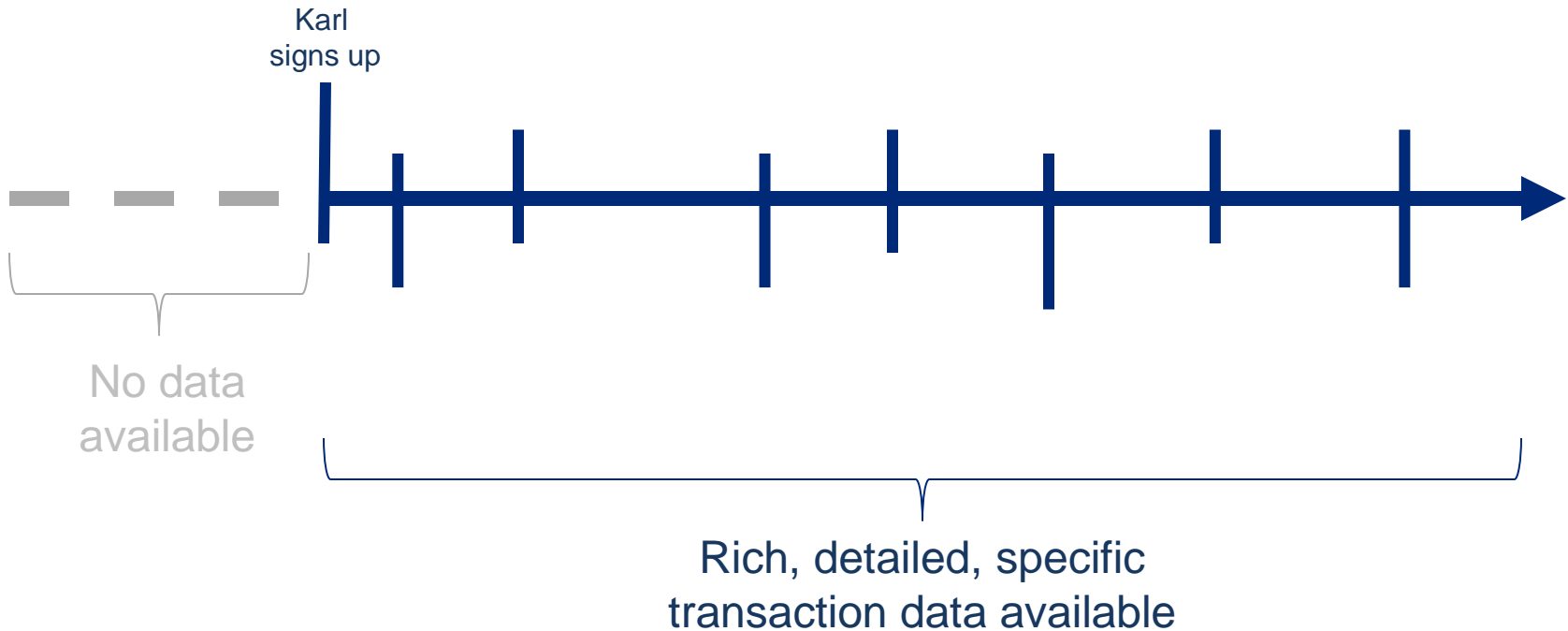
A Coalition Loyalty Program



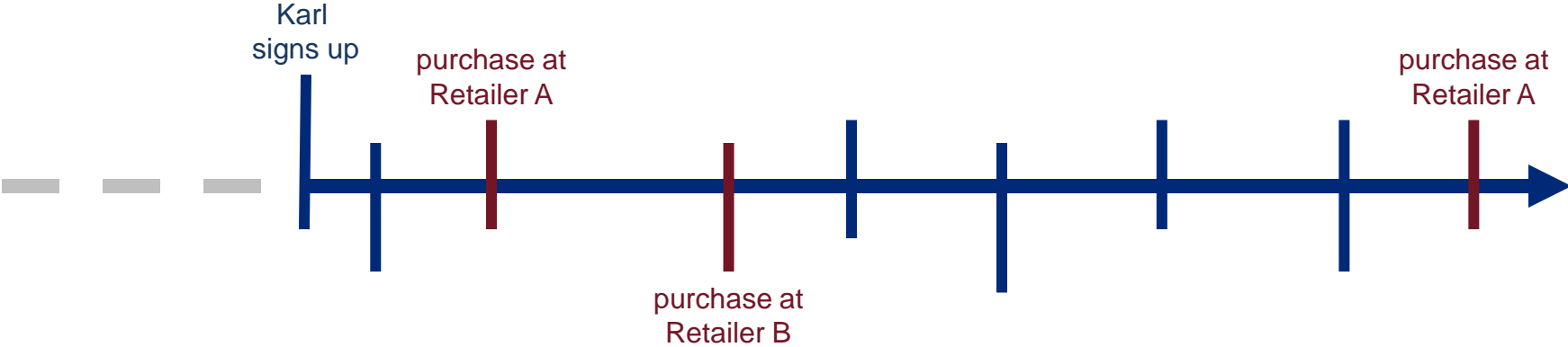
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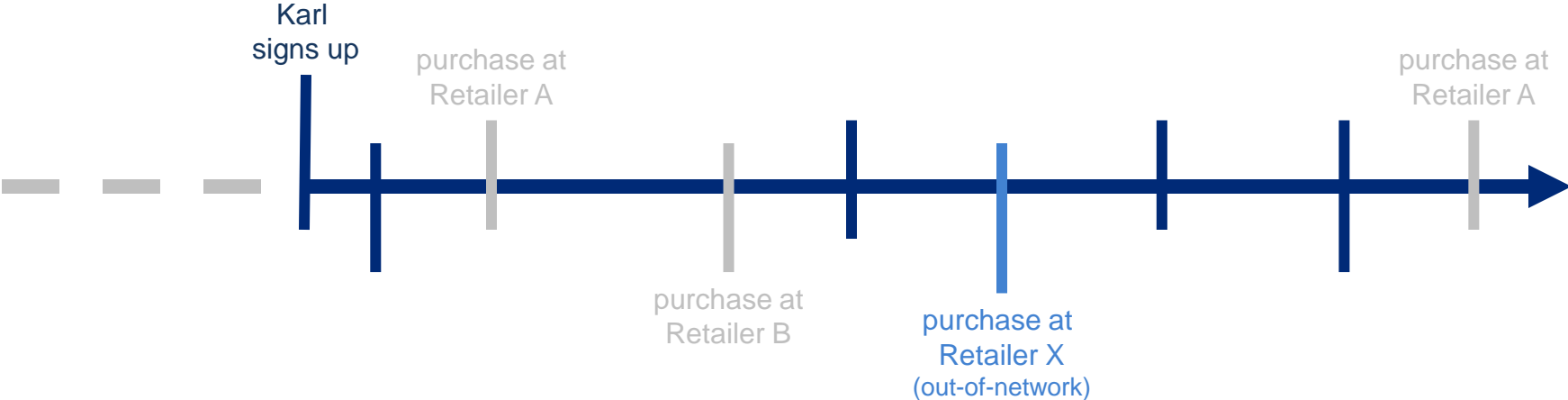
A Coalition Loyalty Program



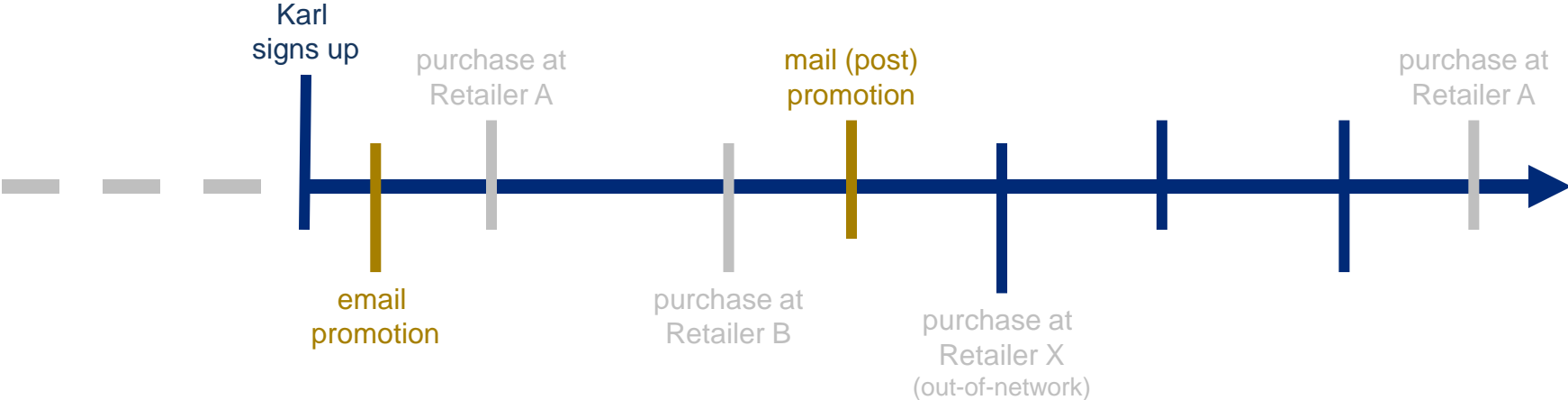
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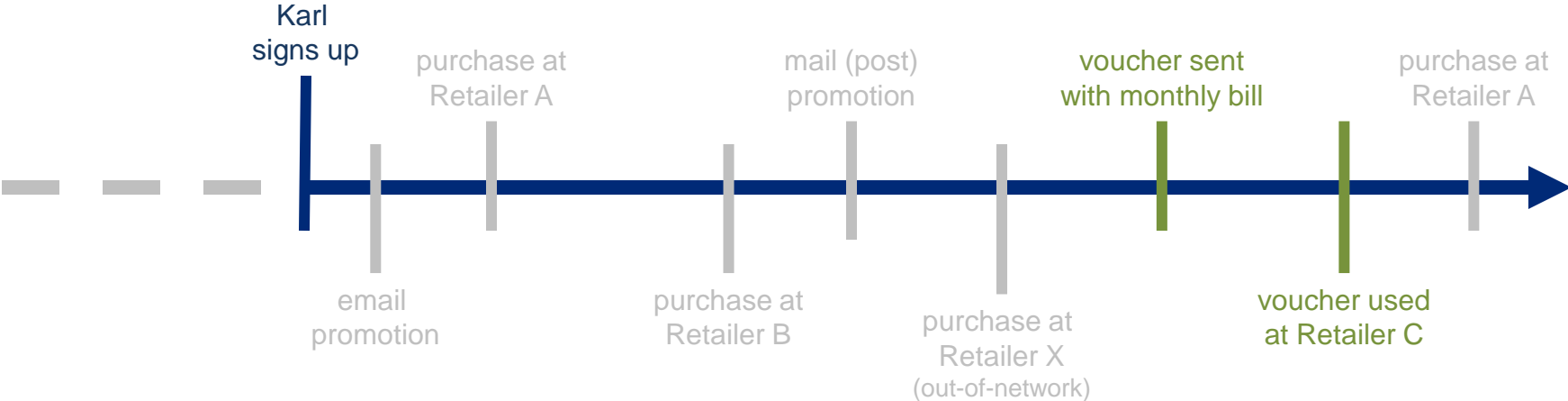
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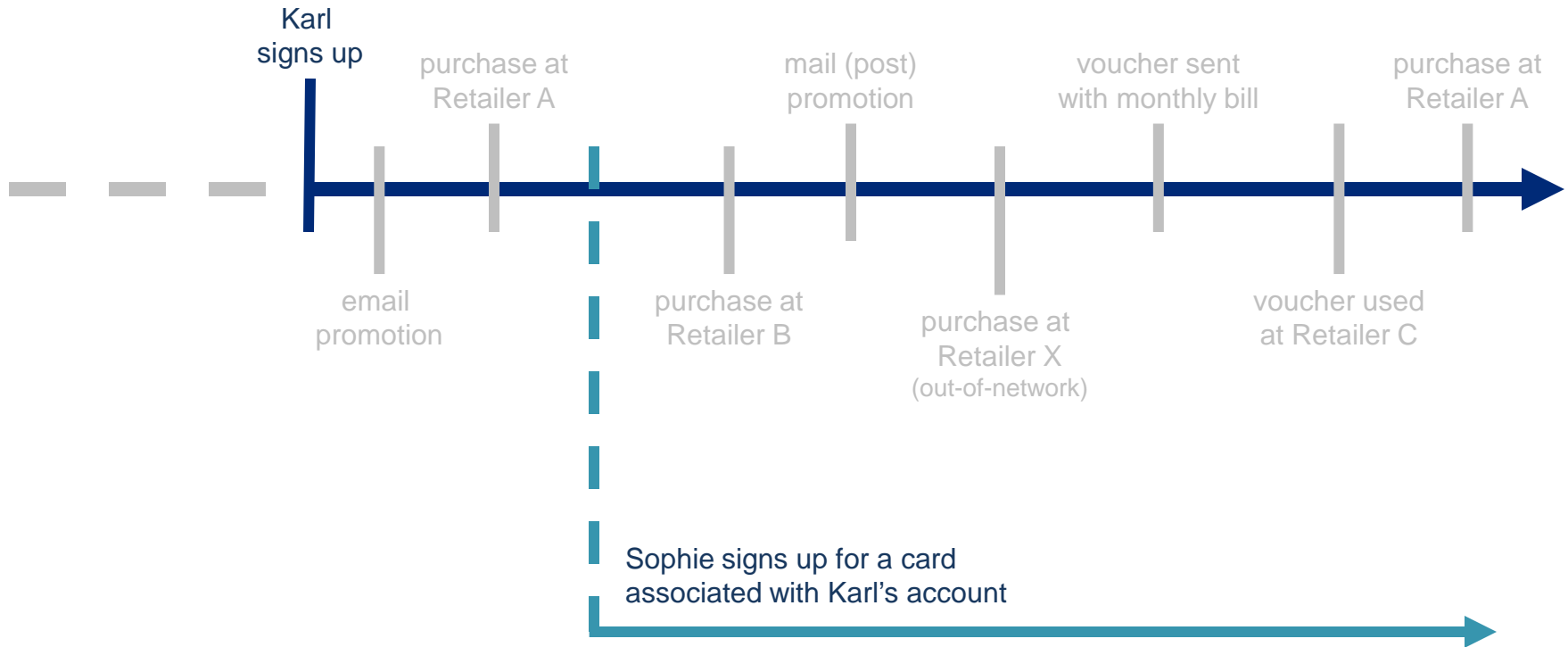
A Coalition Loyalty Program



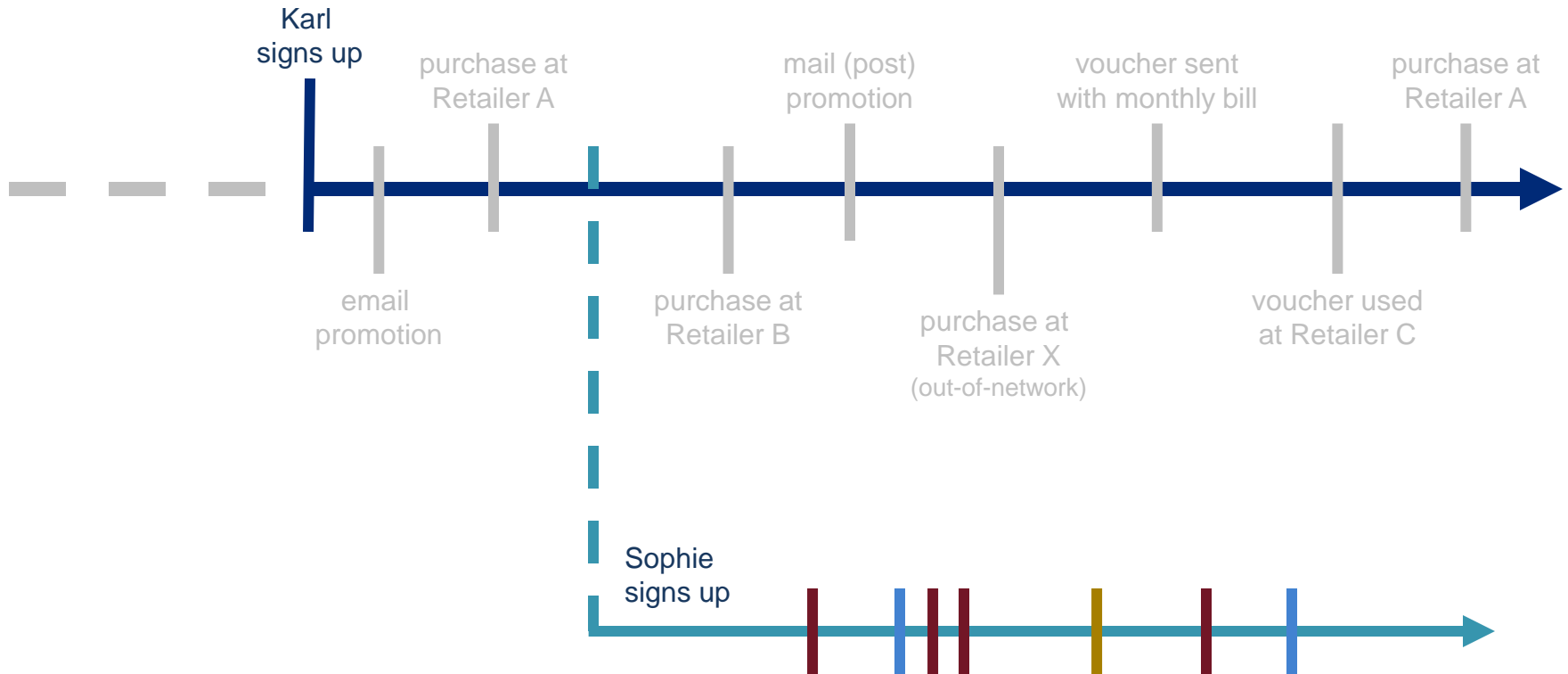
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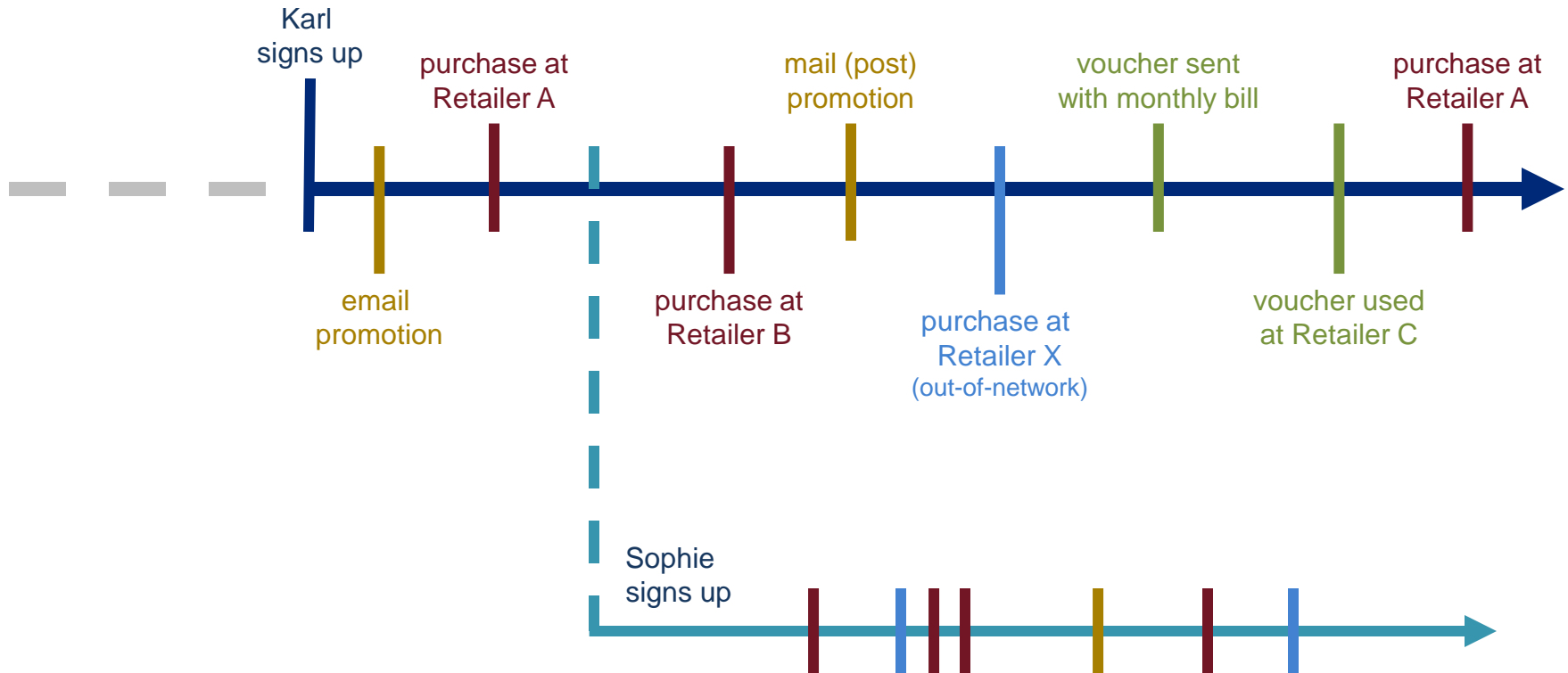
A Coalition Loyalty Program



A Coalition Loyalty Program



A Coalition Loyalty Program



Change in Loyalty Program

Collection	before 1st September 2009	after 1st September 2009
Earning Ratio at Network Partners	0.5 or 1.0 points per local currency unit	0.5 or 1.0 points per local currency unit
Earning Ratio outside Network Partners (Visa)	0.1 points per local currency unit	0.2 points per local currency unit
Redemption	before 1st November 2009	after 1st November 2009
ratio points to voucher value	500 points = 15 units of local currency	500 points = 5 units of local currency
frequency of Voucher production	4x per year (Feb, May, Aug, Nov), when account accumulates more than 500 points	monthly, when account accumulates more than 500 points
distribution channel	invoice	invoice
voucher units	15 and multiple of it	5, 10, 20, 50, 100
validity	2 years	2 years
limit of using vouchers	30% of purchase amount	100% of purchase amount

Note:

Vouchers which were produced before November 2009 but have a validity after November 2009 still follow the old rule for the usage limit.



Data Set

Customers &
Accounts

Network
Partners

Transactions
“in” network &
“out” network

Vouchers

Marketing
Campaigns

Data Set

Customers & Accounts

- Data made up of cohorts, random samples of new accounts in a given year. E.g. Cohort 1 = 2012 sign-up, Cohort 2 = 2011 sign-up, etc.
- 14 Cohorts of 1000 Accounts per Cohort
- All cardholders associated with selected account
- Demographic Data: Age, Gender, Nationality, Job Category
- Income & Education by Zip Code
- Credit Limits and Credit History

Vouchers

Transactions “in” network & “out” network

Network Partners

Marketing Campaigns

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Vouchers

- All vouchers issued for each account
- Voucher date issued, date redeemed
- Location of redemption
- Value in both points & cash amount
- Both Regular and Campaign types of vouchers

Transactions “in” network & “out” network

Network Partners

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Transactions

“in” network &
“out” network

- All transactions from start date* to December 9, 2012 for every account
- Linked to cardholders, allowing analysis deeper than just “household” purchasing
- Includes all purchases at in-network partners and all purchases out of network using the same card
- Data is from the card-issuer’s perspective and so only includes purchases on this card
- Total Amount in local currency (not itemized)
- Detailed payment history, including revolving credit
- Bonus Points earned
- Cash Withdrawals

Network Partners

Marketing Campaigns

* Cohort 14 only has transactions from 2000 forward



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Network Partners

- ~370 different partner retailers
Data includes
- Geographic location
 - Category
 - Specific Branch/Location

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- All specific marketing campaigns sent to cardholders from 2000-2012
- Includes some specific selection criteria for a few campaigns

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Network Partners

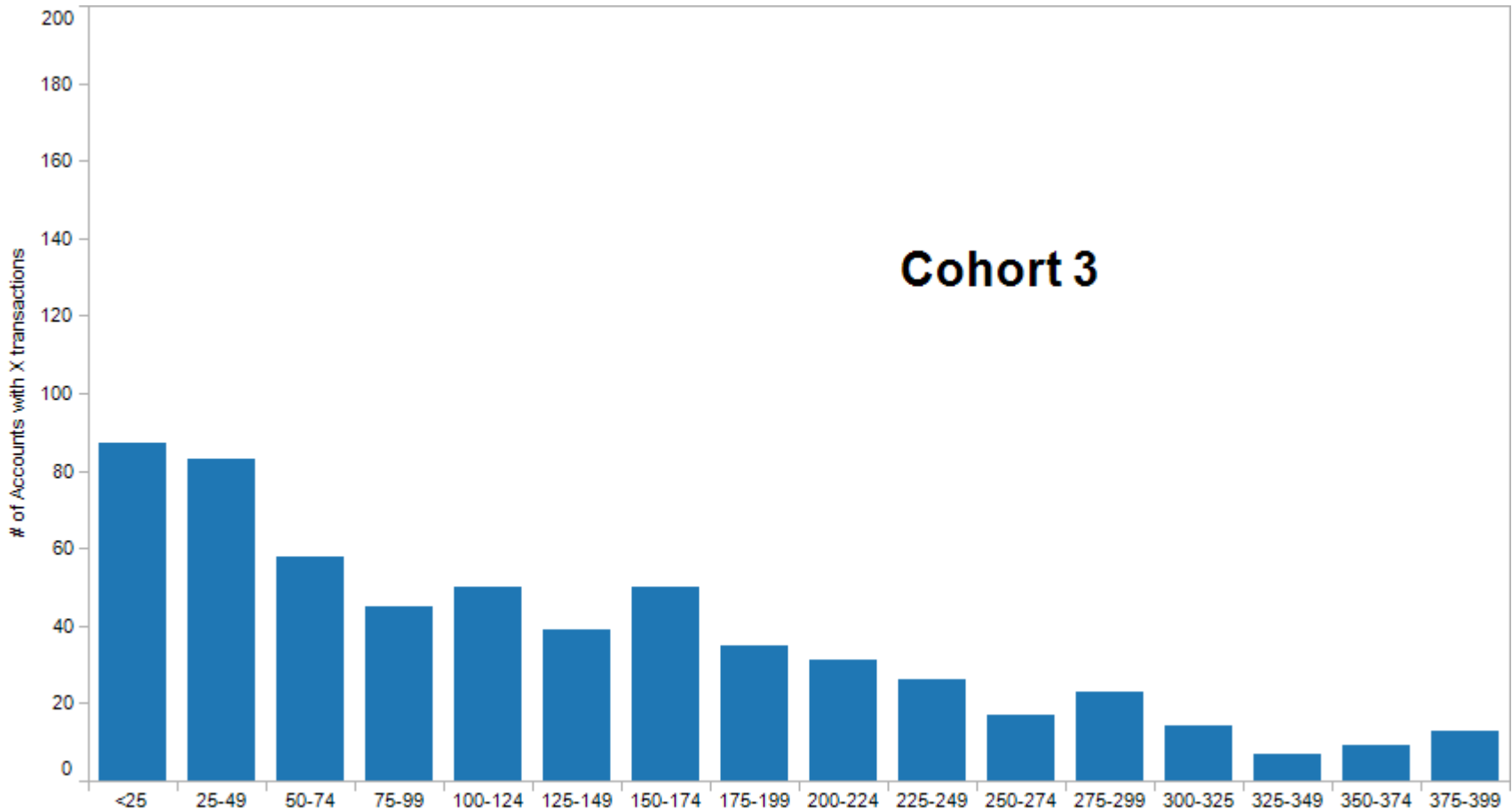
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Wide variation in how much customers use the card



Number of accounts in Cohort 3 (accounts opened in 2010)
with N transactions from account start to 12/9/2012

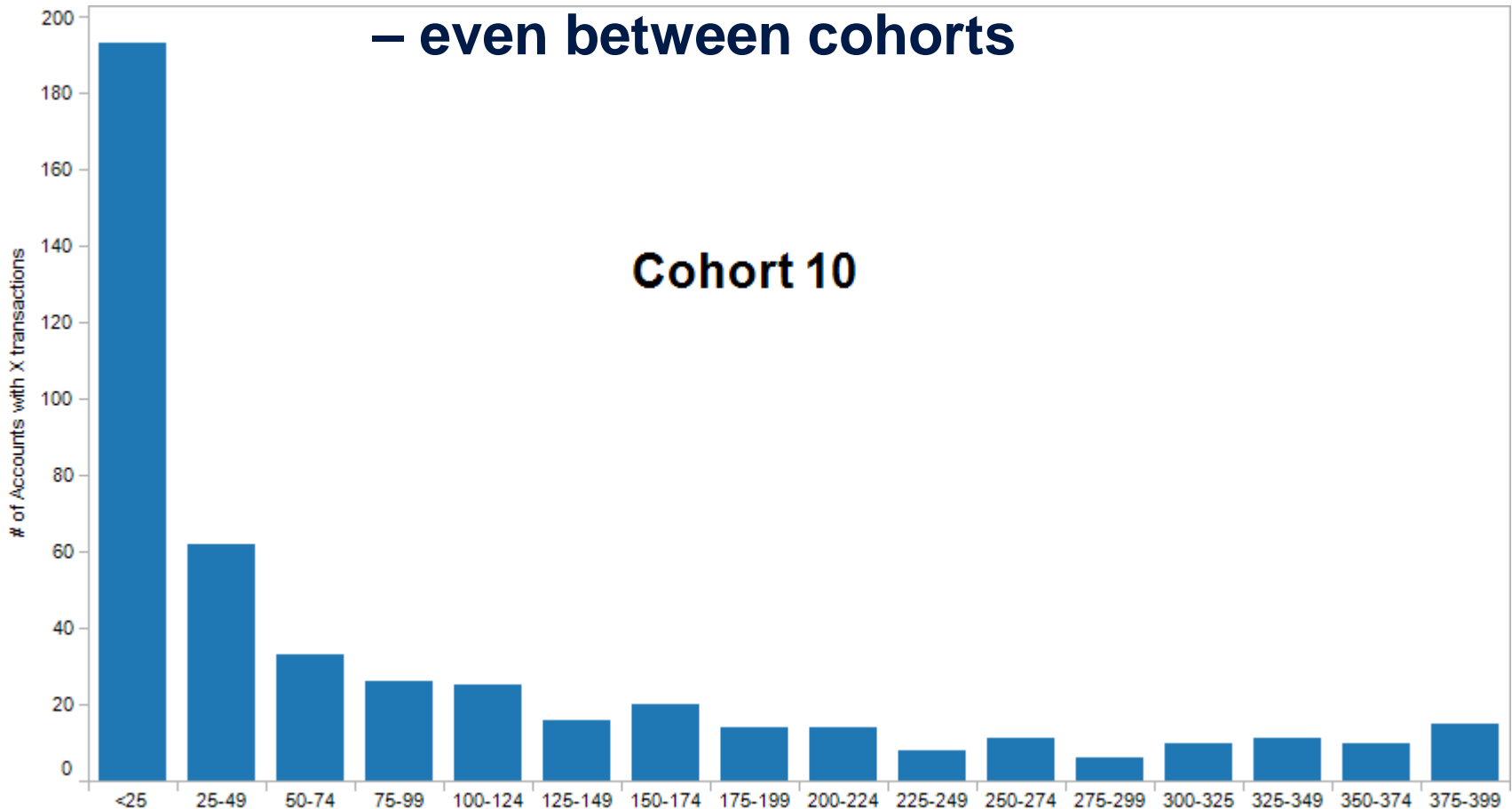
Notes:

42 accounts in Cohort 3 had > 400 transactions

Graph shows all accounts regardless of state on 12/9/2012. Some accounts closed.



Wide variation in how much customers use the card – even between cohorts



Number of accounts in Cohort 10 (accounts opened in 2003)
with N transactions from account start to 12/9/2012

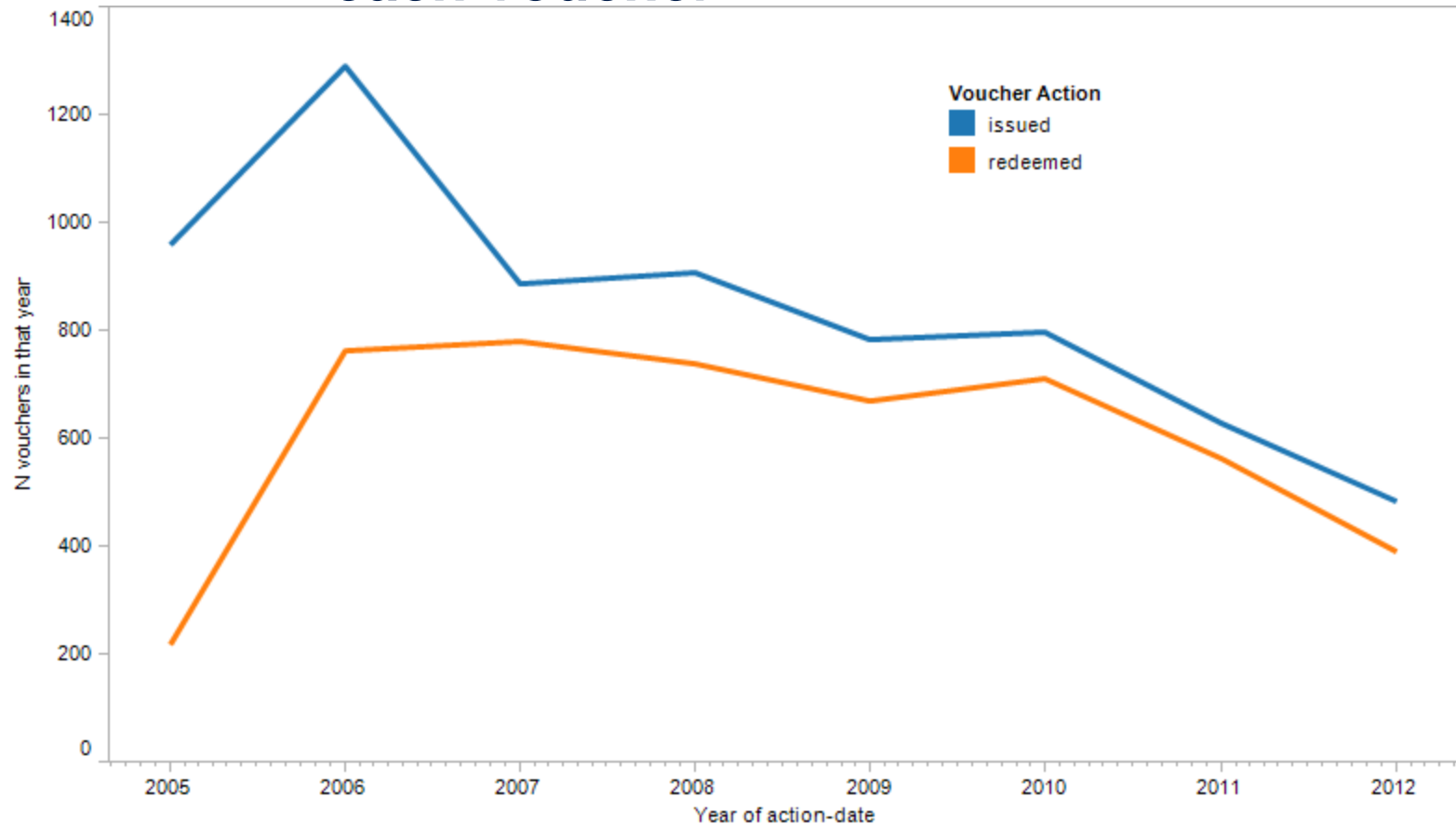
Notes:

137 accounts in Cohort 10 had > 400 transactions

Graph shows all accounts regardless of state on 12/9/2012. Some accounts closed.



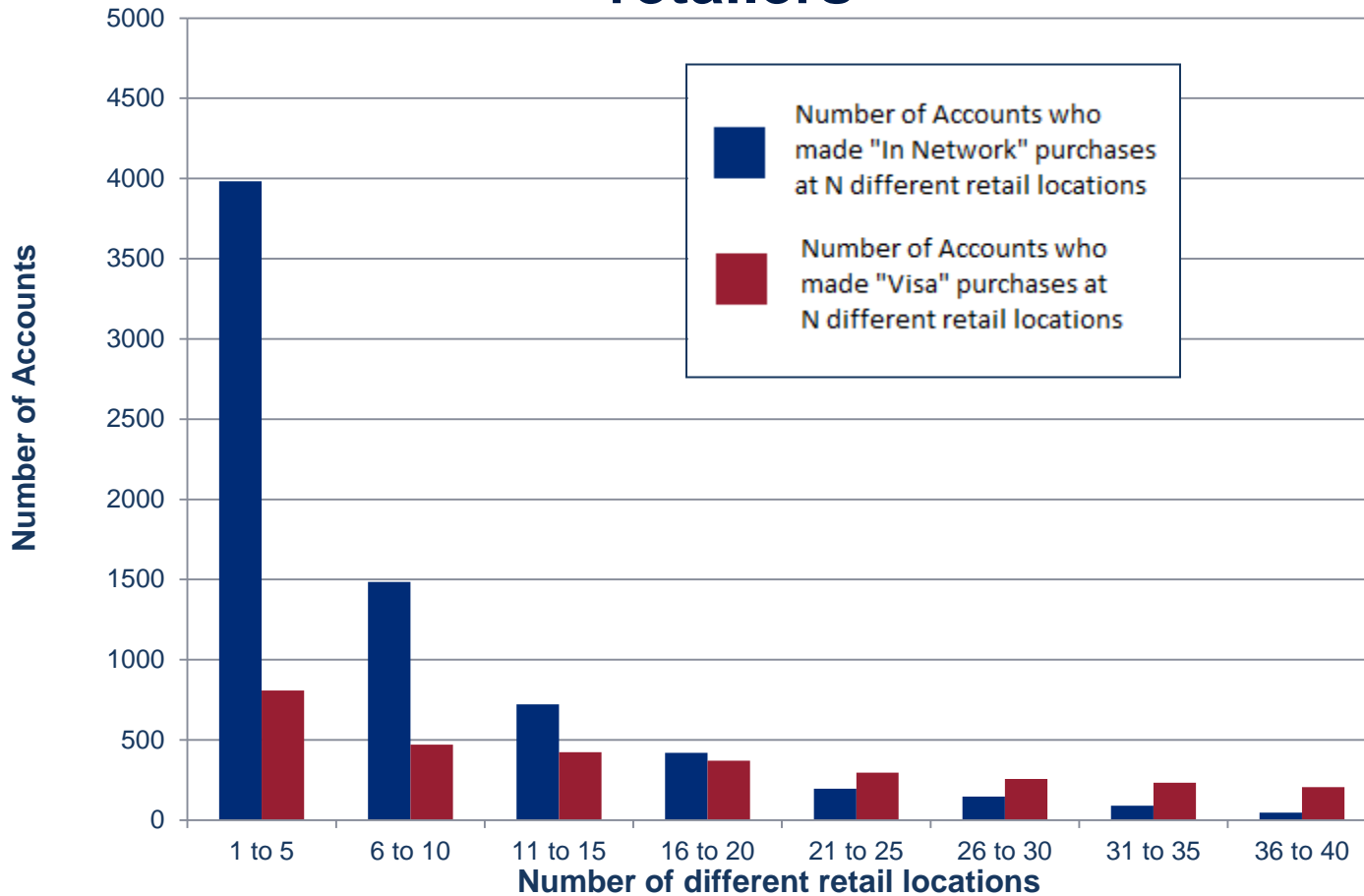
Data includes the issue and redemption dates for each voucher



All vouchers issued for Cohort 8



Customers tend to use the card at few in-network retailers



Notes:
There are ~2300 accounts that make transactions at more than 40 distinct “out of network” locations.

2 accounts have transactions at more than 800 distinct locations.

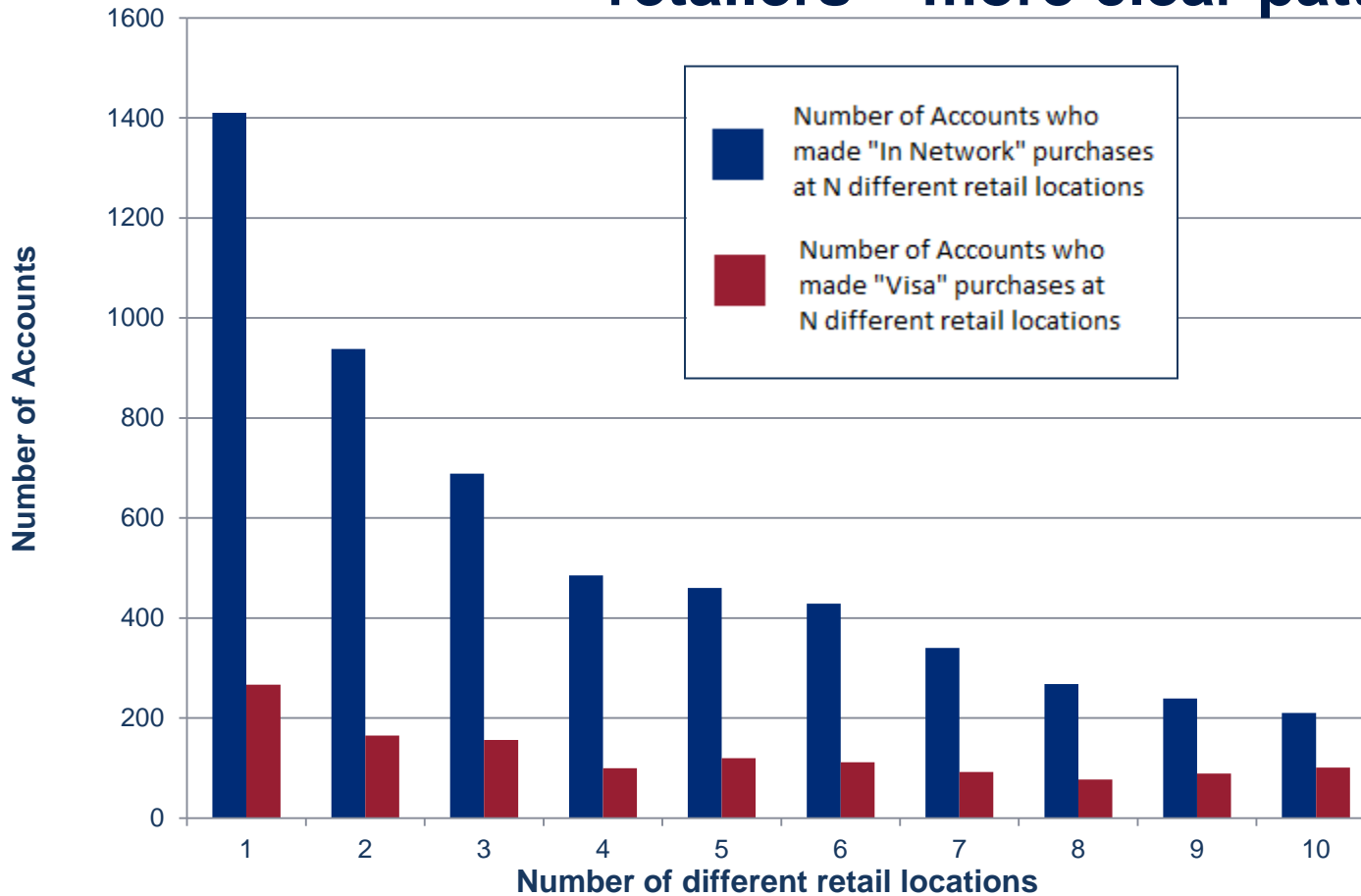
There are ~100 accounts that made transactions at more than 40 distinct “in Network” locations.

3 accounts have transactions at more than 100 distinct locations.

These are all transactions from the sample of 14 cohorts, not the entire customer base.



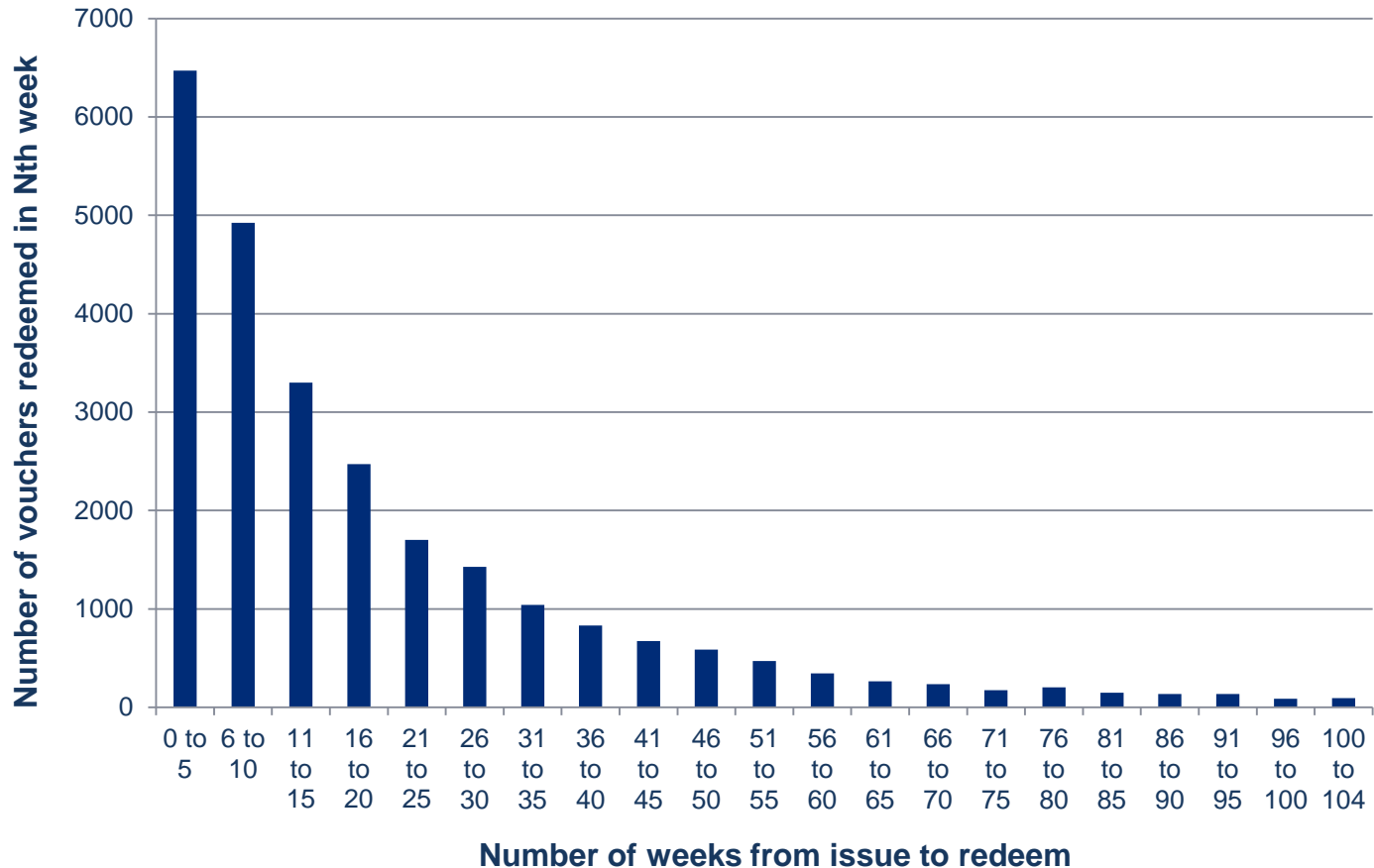
Customers tend to use the card at few in-network retailers – more clear pattern



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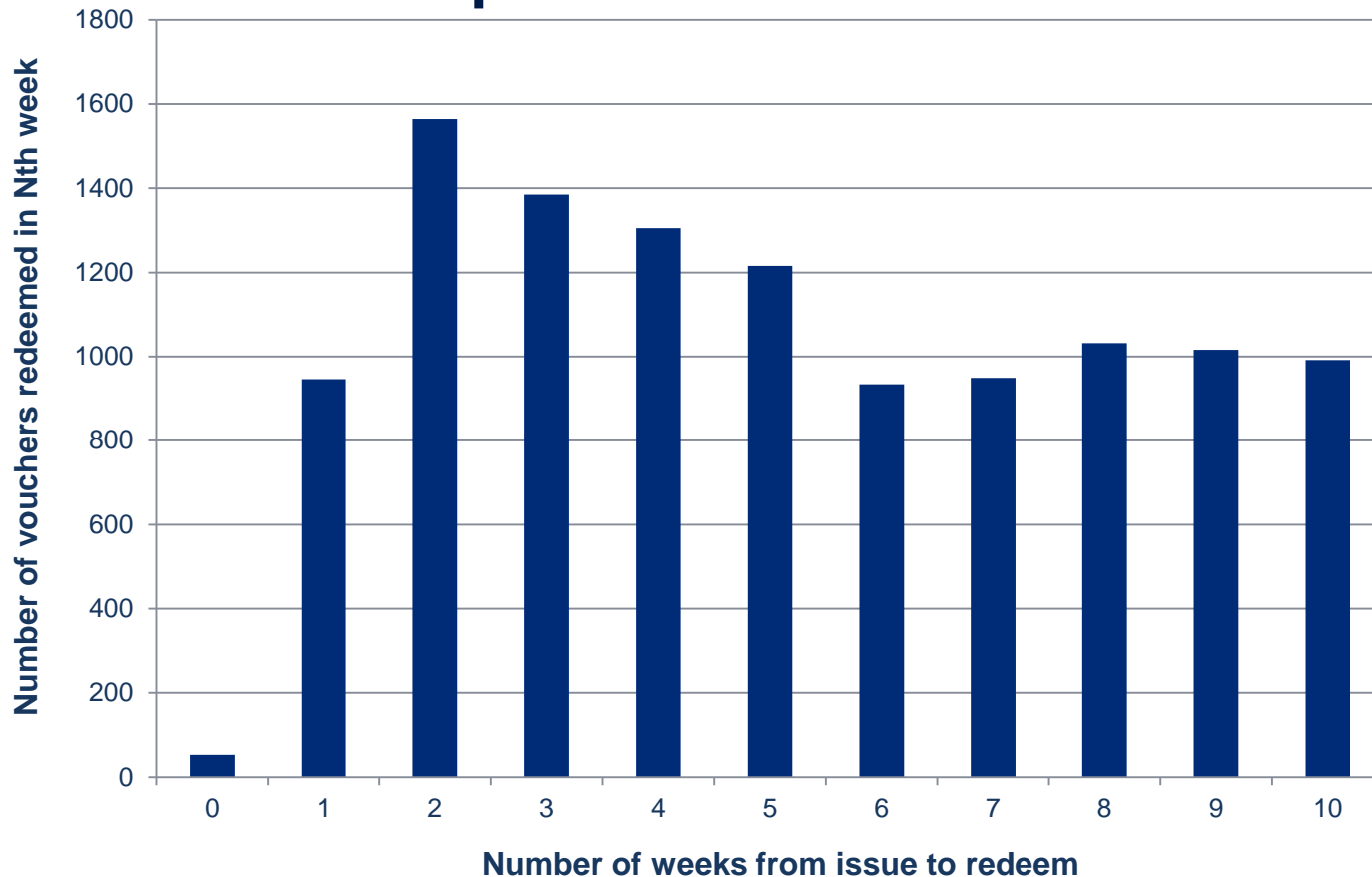
Most vouchers are redeemed within a few months



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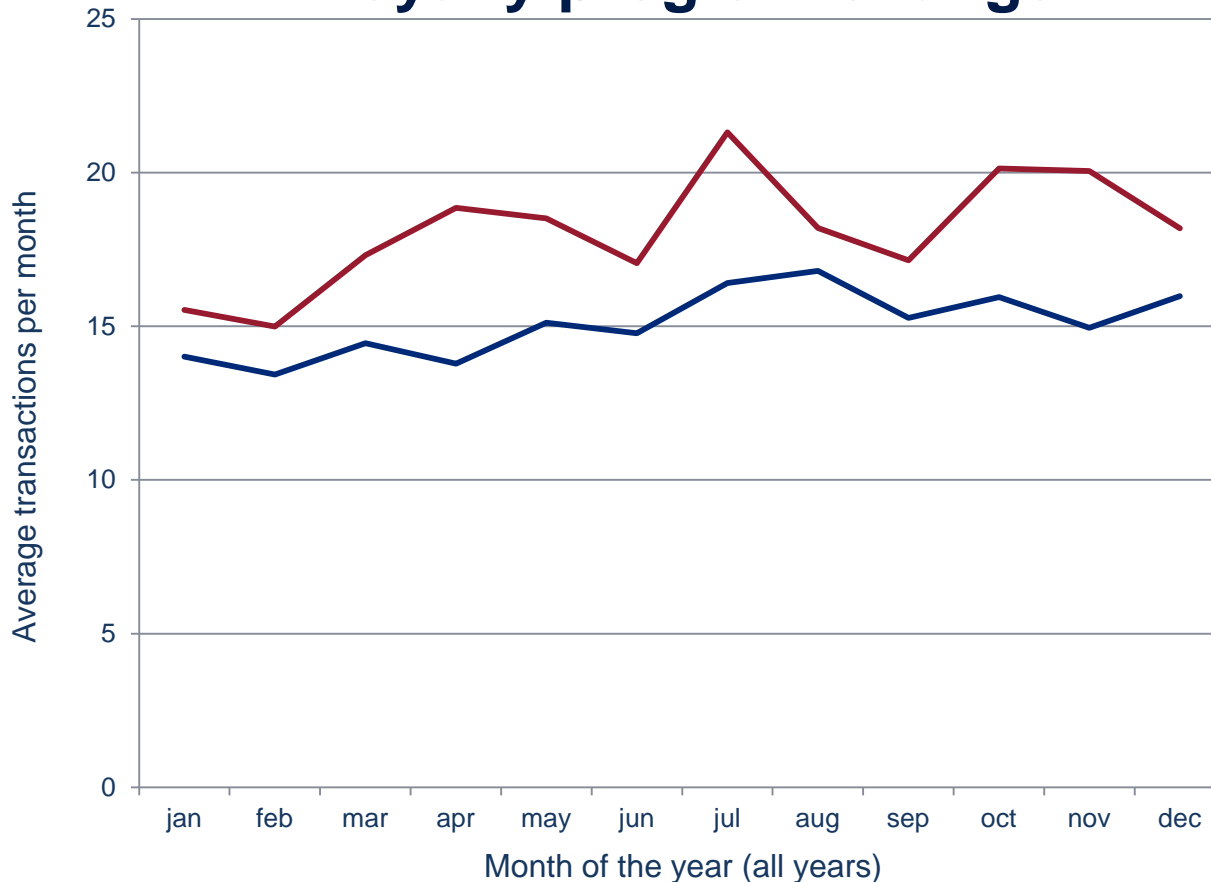
Vouchers redeemed in first few weeks show less clear pattern



These are all vouchers from the sample of 14 cohorts, not the entire customer base.



Transactions with the card increased after the loyalty program change



Average number of transactions per month for Cohort 11

— pre-2009
— post-2009

NOTE:
One of the goals of this research program is discover *causes* of increase in transactions. The loyalty program change may be one of many factors that contributed to the increase.

Cohort 11 started in 2002 (11 years ago)



Questions of Interest

Marketing to Members

- What is the best way to forecast what a customer will buy next week, next month, next year? Can you identify members who are likely to have **high CLV early in their tenure**?
- How should Sponsor **encourage** members to
 - use the card (which is a primary source of revenue),
 - spend with Network Partners (which produces more revenue),
and
 - redeem their vouchers (which may drive customer engagement in the program)?
- Given these **three marketing** objectives, how should the success of marketing campaigns be measured?
- What are the characteristics of **successful campaigns**? When is the right moment to send an e-mail? What offers should the campaign make? How do you activate or reactivate a customer? (Note there are several marketing cadences where new members receive increasing incentives to use the card, e.g. bonus points.)
- How can the spending a customer makes outside of the Partner Network (i.e., the “Visa” data) be used to **better target customers** to encourage them to use the Network?
- Is it possible to estimate the total spending of the customers and Sponsor’s share of wallet when we only observe the purchases on their card? Can this be used to identify customers who are **potentially valuable targets**?



Questions of Interest

Program Design

- How does the presence of loyalty incentives affect
 - members' purchase behavior including how frequently they purchase and how they choose which retailer to purchase from,
 - members' redemption behavior, and
 - new members' decision to enroll in the program?
- How does the design of the loyalty program (earning rates, redemption rules) affect all three of the above and, ultimately, the profitability of the program? Can this be inferred by
 - comparing transactions within the Partnership Network to those outside of the network,
 - comparing those Partners with higher earning rates to those with lower, or
 - studying the changes in the program that occurred in 2009?

What is the value of the program to the Sponsor and its partners?

- A unique aspect of the data is accurate information on individual and household demographics, including income and age. Can this be exploited to understand how the above questions differ for different types of customers? Is there a better way to segment customers beyond RFM? Can the fact that data is at the individual-level, i.e. more granular than the household level, be utilized to understand common aggregation biases and within household variation that can drive engagement?



Questions of Interest

Partner Network

- How does the **portfolio of Network Partners** affect purchase, redemption and enrollment behavior?
- What is the value of each company within the **Partnership Network**? Can we assess which **current partners have the most value** to customers either as a place to earn or a place to redeem points? Which partners enroll the most valuable new customers?
- How much competition is there between partner retailers and does this depend on the physical location of stores or the amount of overlap in products between partners? **How should new potential partners be evaluated?**



Questions of Interest

Marketing to Members

Program Design

Partner Network

or a question **YOU** might propose...



DATA Q&A

Why should you submit a proposal?

- Access to unique data
- Simple, efficient proposal process
 - Proposals due 2 weeks after the webinar
 - Data awarded about 4-6 weeks after the webinar
- Assistance with data cleaning and preparation
- Teleconference Q&A sessions with the research sponsor
- Invitation to a private symposium (typically at Wharton, possibly in Europe) to share your research findings with the corporate partner about a year from now
 - Awarded teams will be required to complete interim and final project reports for the research sponsor with focus on the practical implication of research and the sponsor's required steps to implement the research internally
- Promotion of your research paper through the WCAI SSRN Research Paper Series



Proposal Format

Proposals should be no more than 2,000 words and include the following:

- **Title**
- **Author(s) name, title, affiliation and e-mail address:** Please designate a corresponding author.
- **Summary information:** a single “slide” that visually summarizes team & project.
- **Abstract**
- **Introduction:** Describe expected contribution(s), covering both the academic and practical aspects. Please keep it concise, and cite relevant work as necessary to explain your academic contribution. There is no need to include a lengthy literature review.
- **Detailed project proposal:** Please include enough detail that we can assess the feasibility & merit of the proposed approach. For example, modeling projects should include at least a sketch of the model. In addition, include a rough estimate of how long the project will take. Also include the business relevance of your research and the impact for the sponsor as well.
- **Category:** “Marketing to Members” / “Program Design” / “Partner Network” / “Other”
- **Biographies:** Include up to a paragraph-long biography highlighting what each team member will contribute to the project.

PDF's ONLY PLEASE!



Proposal Submission Process

- Read more about the proposal format at <http://www.wharton.upenn.edu/wcai/Proposals.cfm>
- Submit proposals at <http://www.wharton.upenn.edu/wcai/proposalform.cfm> no later than Wednesday, February 20, 2013, 5pm US Eastern.
 - Proposals will only be accepted online.
 - A single PDF combining the written portion and the single slide.
- Proposals will be evaluated both on academic contribution and potential to significantly improve the research sponsor's marketing practice.
 - Martin Natter (Frankfurt), PK Kannan (U Maryland), Eric Bradlow (WCAI), Pete Fader (WCAI), Elea Feit (WCAI), and representatives from Research Sponsor.
- Contact wcai-research@wharton.upenn.edu, if you have questions prior to submitting your proposal.



Other WCAI Opportunities for Researchers

If you registered for this webinar, you will receive regular announcements about:

- Research Opportunities like this one
 - Online Ratings across multiple channels/brands: March 2013
 - Connecting survey research to online behavior: April 2013
- Grant/funding opportunities
- Measuring Advertising Effectiveness Conference – May 2013

Also find us at:

- SSRN Research Paper series:
<http://www.ssrn.com/link/Wharton-Cust-Analytics-Initiative-RES.html>
- Announcements: <http://wcai.wharton.upenn.edu>





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