

Household Participation and Response Quality in a Survey Featuring Mobile and Desktop Modes

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Outline

1. Test design
 - a. Overview
 - b. Mode Assignment
 - c. Demographics
2. Performance
 - a. Within-HH participation
 - b. Data quality
 - i. Logins/Entries
 - ii. Consistency
3. Discussion



1. Test Design



Overview

- The Consumer Expenditure (CE) Diary includes a household paper diary
- Households record all expenditures over a 2 week period
- CE tested feasibility of household individuals completing survey using web diaries
- Test fielded by Census August – December, 2014 with a realized sample of 241 households in Philadelphia, Chicago, and Los Angeles Regional Offices

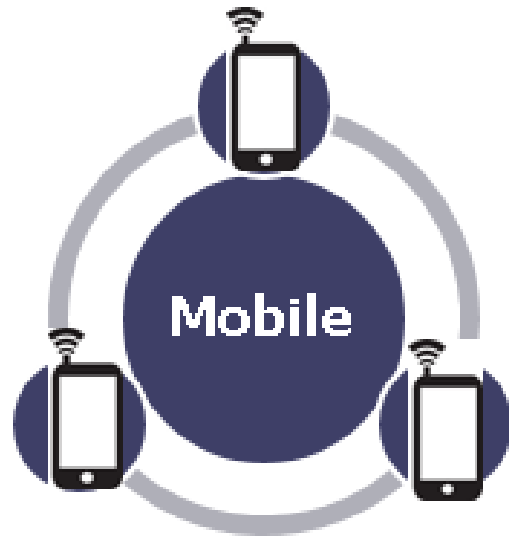


Mode Assignment

Each eligible respondent (age 16+) assigned diary for expenditure entries (2 weeks):

Mode	Assignment
1. Smartphone	'Mobile'
2. No smartphone, but home internet	'Desktop' (laptop/tablet)
3. No home internet access	Screened-out

Mode Assignment



N= 81



N= 106



N= 23

Mobile-Optimized Diary

Enter Date

respond.census.gov/ced

Logout **CE Diary**

July 15, 2014

Enter Description

\$0.00

Recorded for another household member

Food and Drink Away from Home

Breakfast Lunch
Dinner Snack/Other

Select Type of Vendor

Alcohol Included?
Wine Beer Other

Cost of Alcohol:
\$0.00

Cancel

Desktop-Optimized Diary

United States **Census** Bureau

CONSUMER EXPENDITURE DIARY SURVEY

About the Survey Help User Guide Change Password

Food and Drink Away from Home Food and Drink for Home Consumption Clothing, Shoes, Jewelry, and Acc. All Other Products/Services

Meal Type	Description	Where Purchased	Total Cost with tax and tip	Alcohol Included? (Check all that apply)			Total Alcohol Cost	Date Purchased	Recorded for another household member	Clear
				Wine	Beer	Other				
Breakfast	sandwich & coffee	Employer or School C	\$5.98	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		07-15-2014	<input type="checkbox"/>	X
Snack/Other	soda	Vending Machines or	\$1.25	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		07-15-2014	<input type="checkbox"/>	X
Lunch	sandwich & chips	Fast Food, Take-out, (\$7.95	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		07-15-2014	<input type="checkbox"/>	X
Dinner	Steak dinner	Full Service Places	\$55.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$15.00	07-15-2014	<input type="checkbox"/>	X
Select One		Select One		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Select One	<input type="checkbox"/>	X
Select One		Select One		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Select One	<input type="checkbox"/>	X
Select One		Select One		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Select One	<input type="checkbox"/>	X
Select One		Select One		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Select One	<input type="checkbox"/>	X
Select One		Select One		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Select One	<input type="checkbox"/>	X
Select One		Select One		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Select One	<input type="checkbox"/>	X

Add Rows

Burden Statement Accessibility Privacy Security

Demographics

	Mobile	Desktop	Mix
Household Size			
- 1 member	17%	20%	-
- 2-3 members	49%	62%	65%
- 4+ members	33%	18%	35%
Average members	2.1	2.1	2.6



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Age composition			
-youngest 16-35	58%	30%	52%
-youngest 36-50	31%	21%	17%
-youngest 51+	11%	49%	30%

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Highest Education			
-no high school	11%	15%	0%
-some college	26%	29%	35%
-college grad	63%	56%	65%
Own home	58%	74%	74%



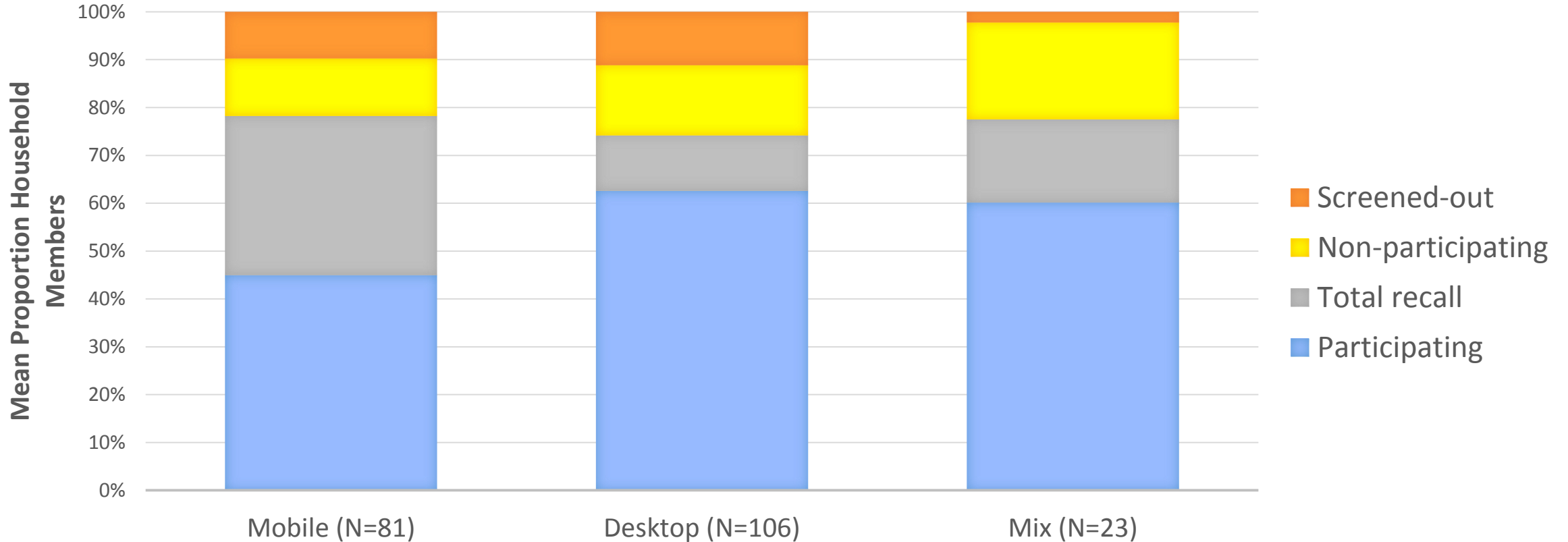
2. Performance



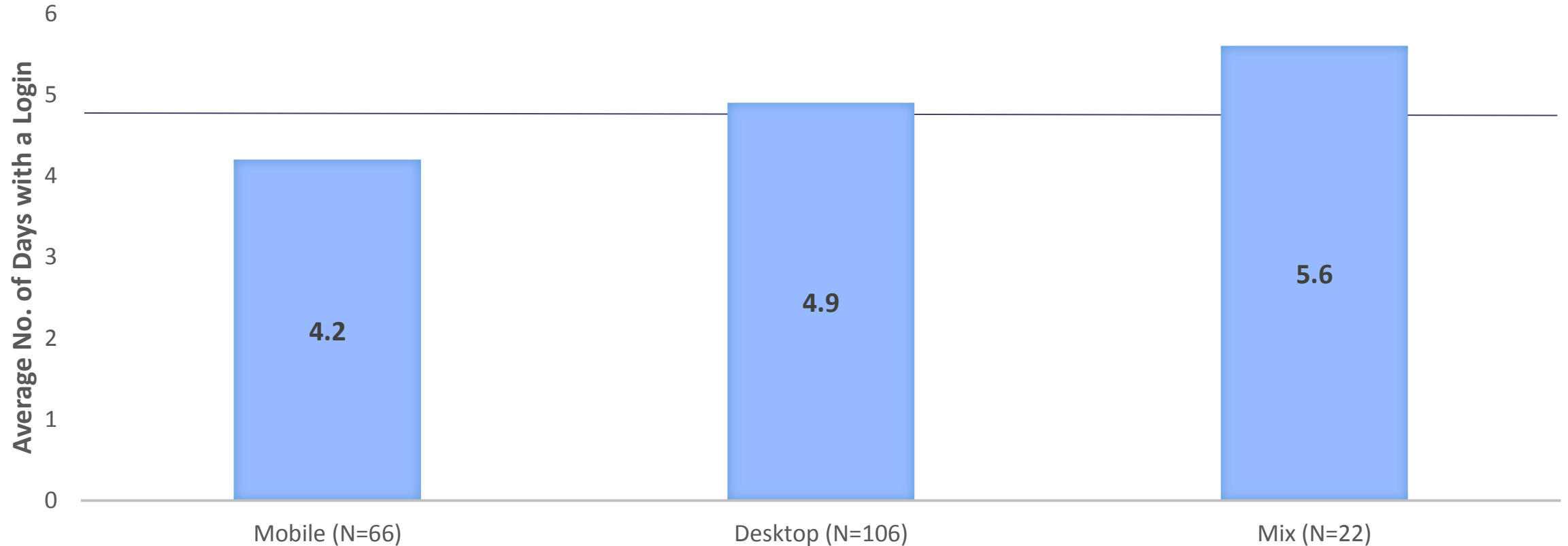
Within-Household Participation

- Household member involvement:
 - ▶ Screened-out (no diary – no internet access)
 - ▶ Non-Participating (assigned diary, but no entries)
 - ▶ ‘Total Recall’ (assigned diary, but telling interviewer expenses instead of making entries)
 - ▶ Participating (assigned diary, and making entries into mobile or desktop diary)

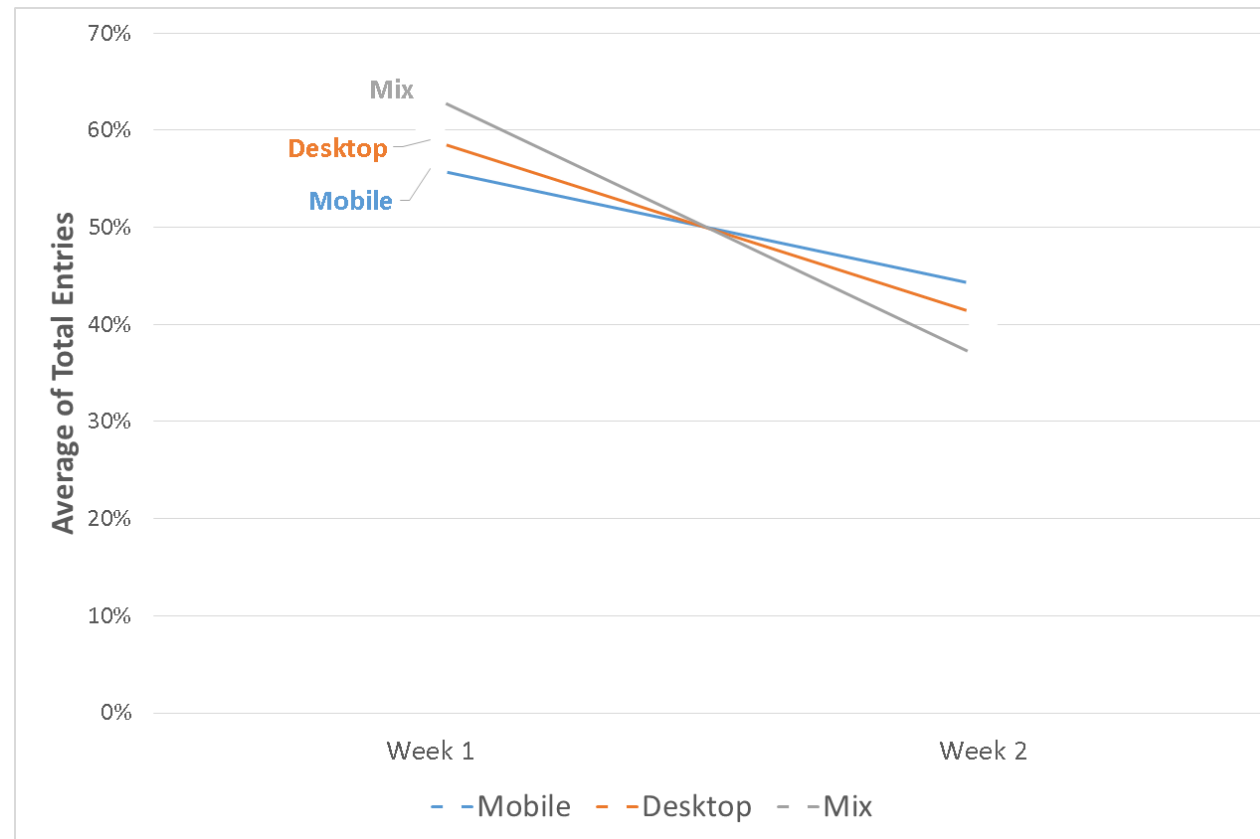
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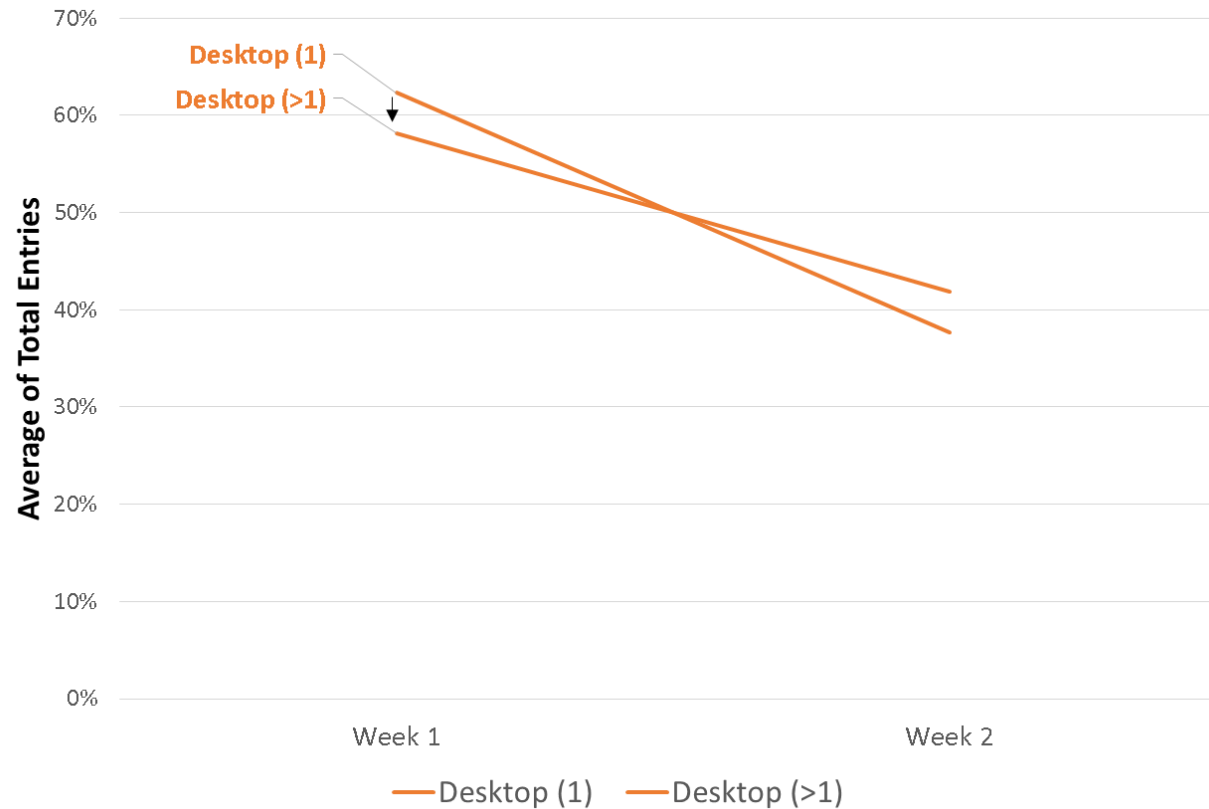
Data Quality: Login Days



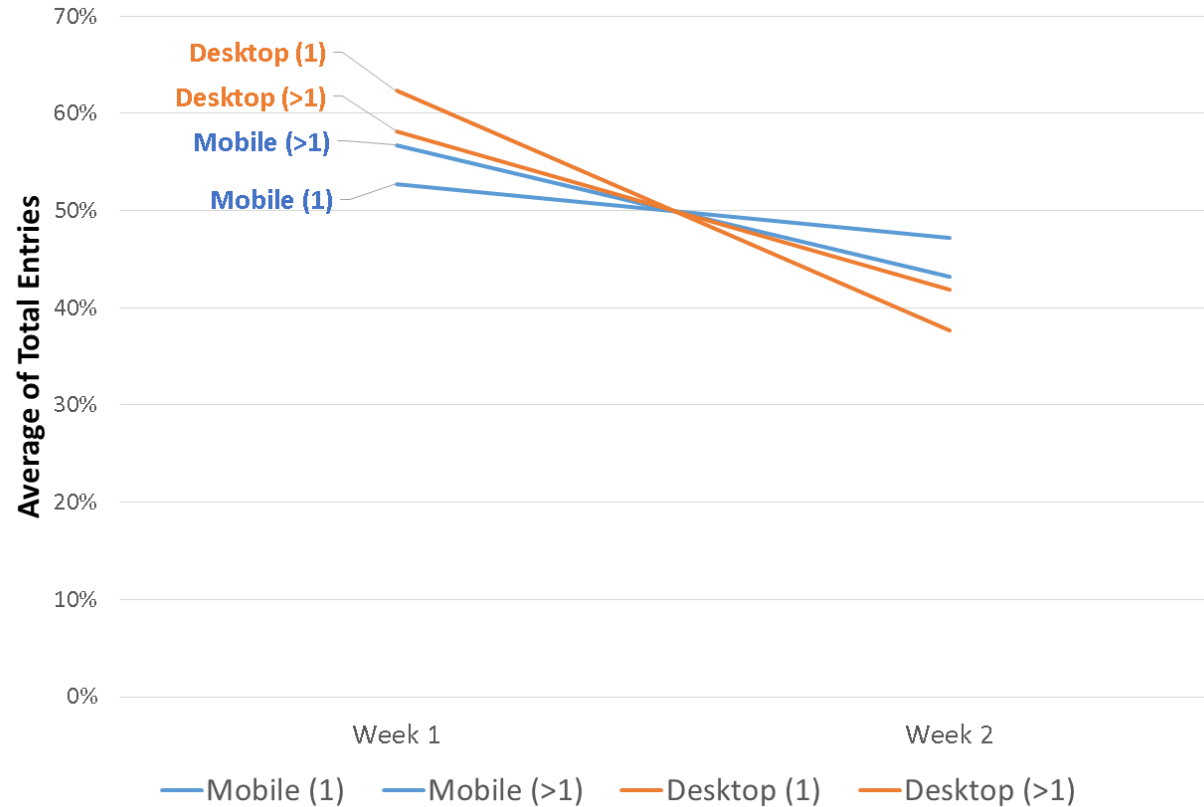
Reporting Consistency by Group



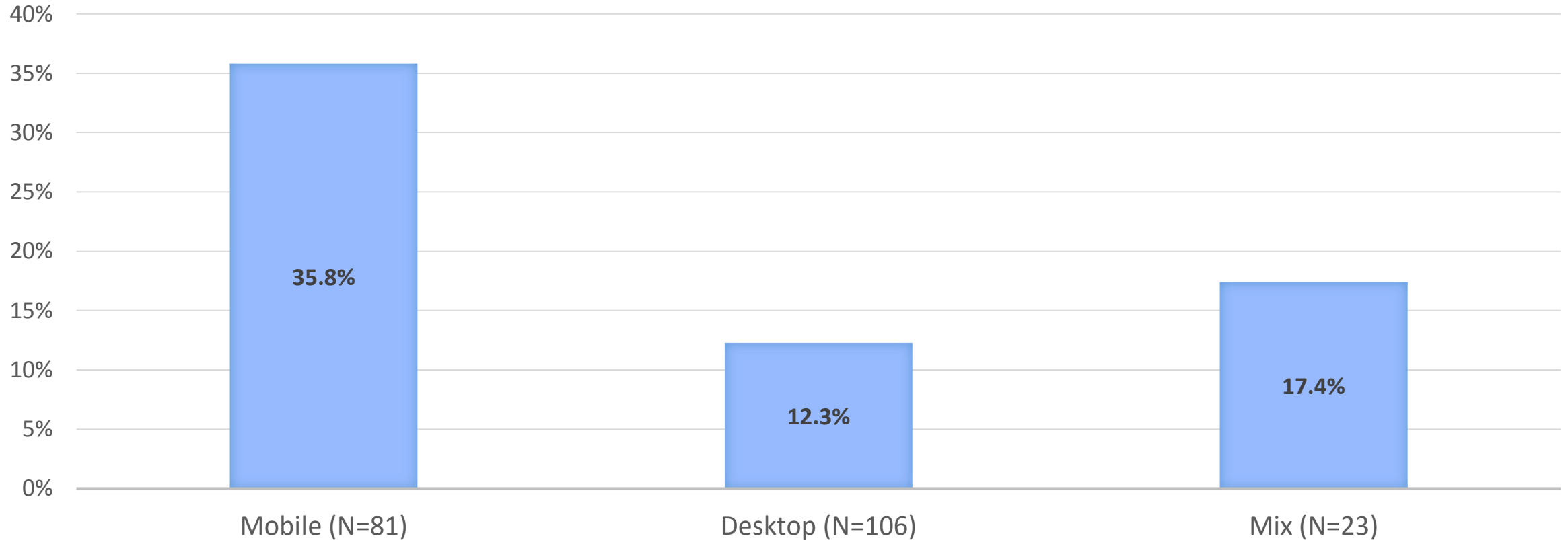
Reporting Consistency by Group and HH Size



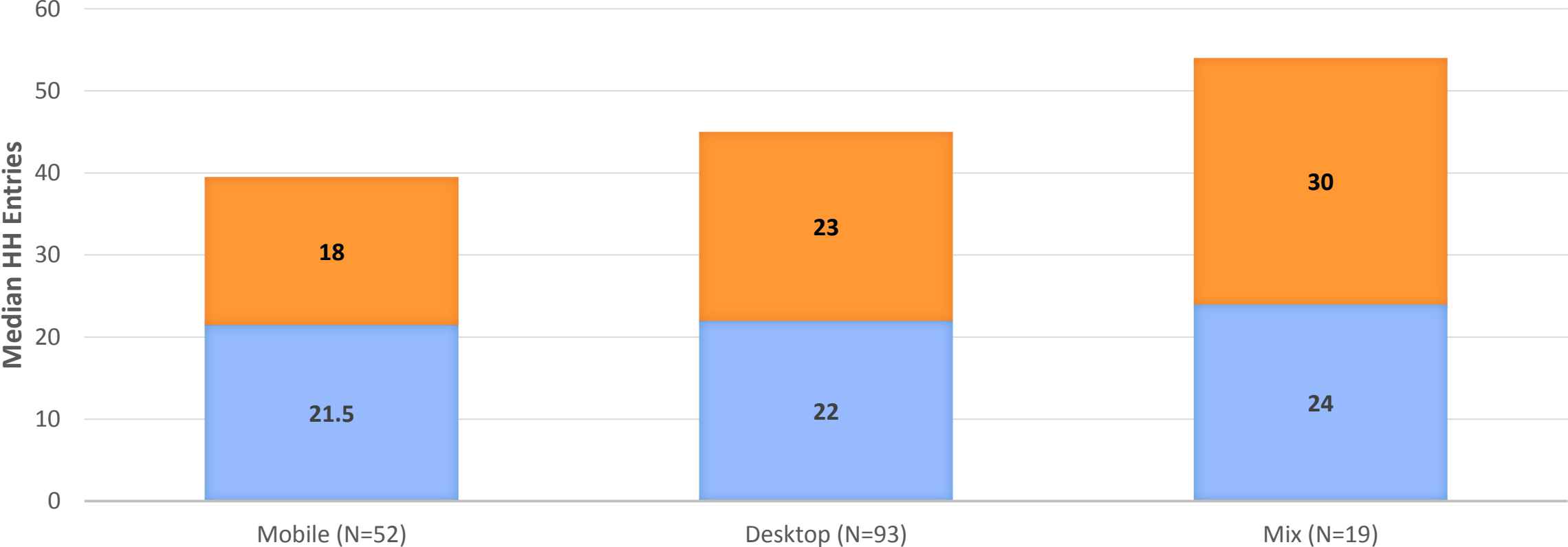
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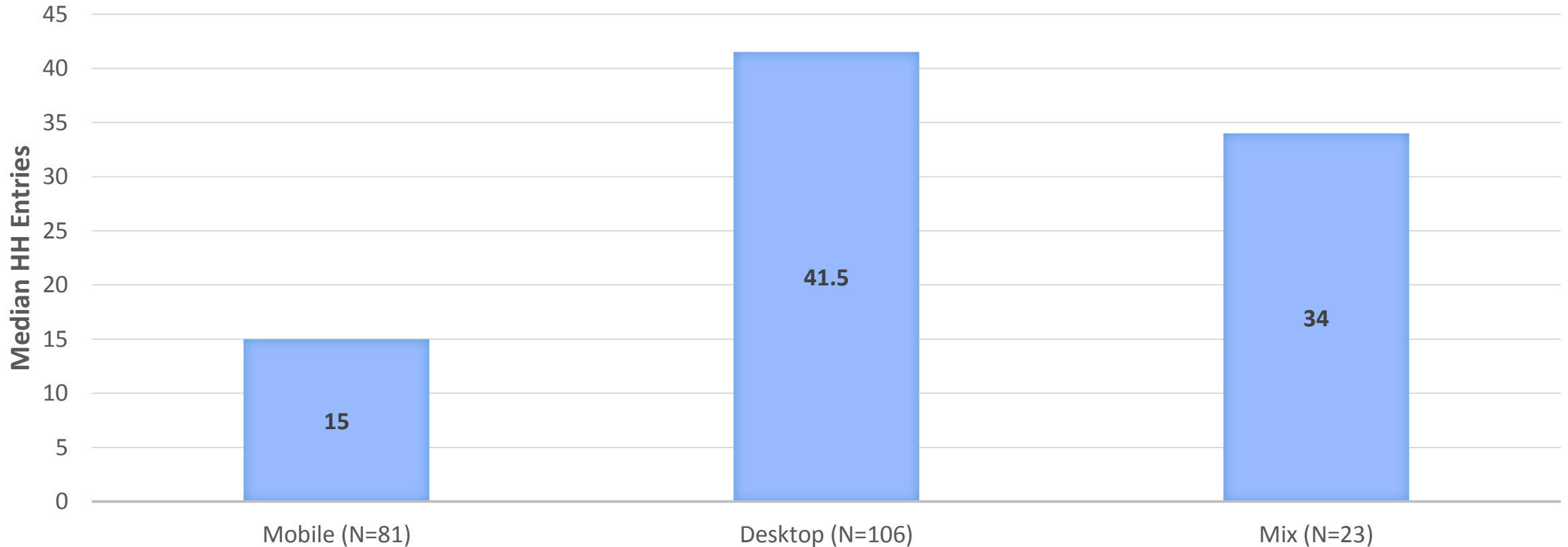
More Total Recall in Mobile HHs



Difference in Diary Entries Due to Groceries



Difference in Diary Entries Due to Total Recall



3. Discussion

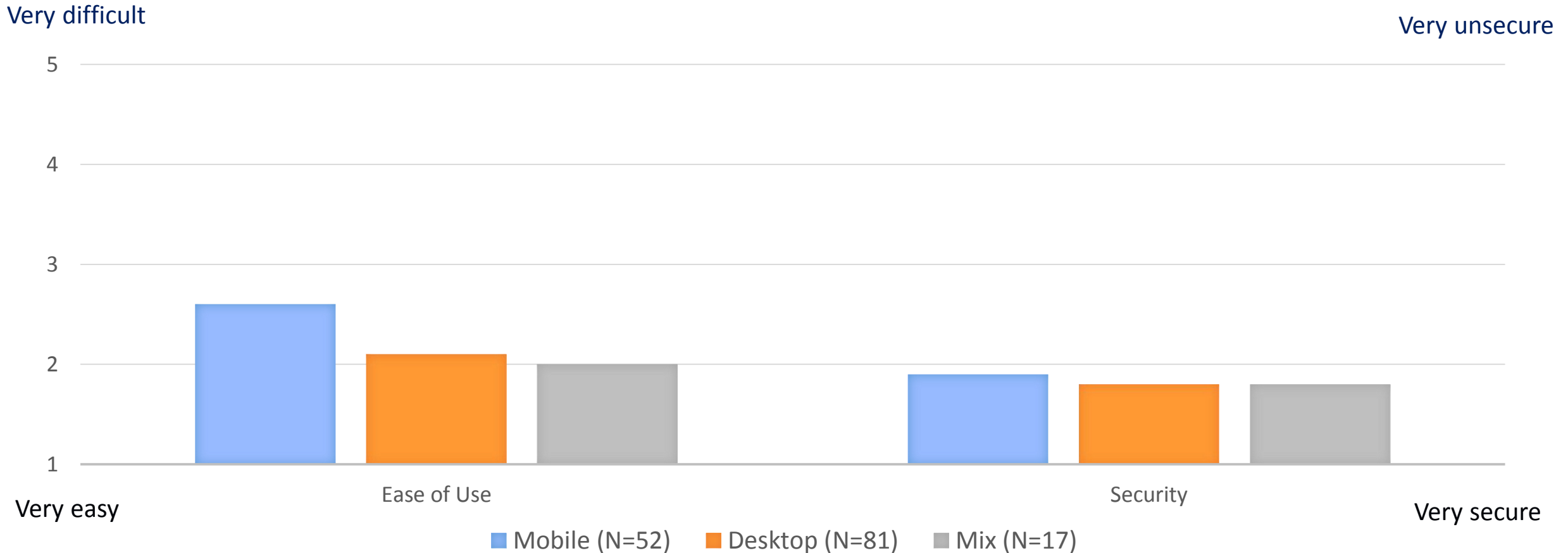


Comparative Performance

- ▶ Mobile: fewer within HH making entries
- ▶ Similar extent of days with log-in
- ▶ Mobile: HHs slightly more consistent in entries across weeks
- ▶ Many mobile HHs had ‘total recall’ and no diary entries
- ▶ Entries in diary: mobile HHs had fewer entries, due to fewer groceries entered



What accounts for performance difference?



Summary

Why improved performance for desktop HHs?

1. Lack of mode choice – total recall in mobile suggests tech difficulties
2. Desktop may be better for some expenditures (groceries)
3. More widespread desktop participation meant greater self-reporting
4. Possible ‘peer effect’ in desktop HHs?

Contact Information

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Additional Findings: Daily Diary Login Patterns

