

The Survey of Consumer Expectations

November 18, 2016



The views presented here are those of the author and do not necessarily reflect those of the Federal Reserve Bank of New York, or the Federal Reserve System

Roadmap for Today's Presentation

- SCE Overview
- A Closer Look at Inflation Expectations
- SCE Credit Access Survey
- SCE Labor Market Survey



SCE Overview



The Survey of Consumer Expectations (SCE)

- What is it?
 - A relatively new survey focusing on expectations using frontier methodology from economics, psychology and survey design

- Why collect expectations data?
 - Monitor the public expectations for (e.g.) inflation, wage
 - Understand the link between expectations and decisions
 - Understand expectations formation
 - Collect evidence on time-sensitive topics of interest



Survey of Consumer Expectations

- 2006-2012: Development & testing. June 2013: Official launch
- SCE is fielded by ***Demand Institute***, a partnership between the ***Conference Board*** and ***Nielsen***
- Key features of the survey:
 - Monthly
 - Internet-based
 - ~1,300 household heads
 - Nationally representative
 - **Rotating panel (12 months)**
 - **Elicit point predictions and density forecasts**
 - Wide range of expectations (e.g. labor, housing markets)
 - Wide range of (past and intended) decisions



The SCE Has Three Components

- A **core module** fielded **each month** on expectations about macro-economic and household level variables
 - Inflation, unemployment, wage growth, home prices, individual expenditure items, HH income, HH spending, taxes, government debt, credit access, labor market transitions
- **Rotating modules** fielded **each month** on special topics
 - Repeated: **Credit access, labor market**, spending
 - Ad hoc: ACA, gas prices, student loans, family leave
- **Annual modules** on special topics:
 - Housing; Labor Market; Household Finance



SCE Monthly Webpage

SURVEY OF CONSUMER EXPECTATIONS (NOV 2016)

DOWNLOADS

The New York Fed's *Survey of Consumer Expectations (SCE)* provides timely and comprehensive information about consumer expectations through three broad categories: inflation, labor market and household finance. The SCE contains monthly insight about how consumers expect overall inflation and prices for food, gas, housing, education and medical care to change over time. It also provides Americans' views about job prospects and earnings growth, as well as their expectations about future spending and access to credit. The SCE also provides measures of uncertainty in expectations for the main outcomes of interest. Expectations are available by age, income, education, numeracy and geography. [Get more details about the Survey of Consumer Expectations...](#)

Main Survey Results

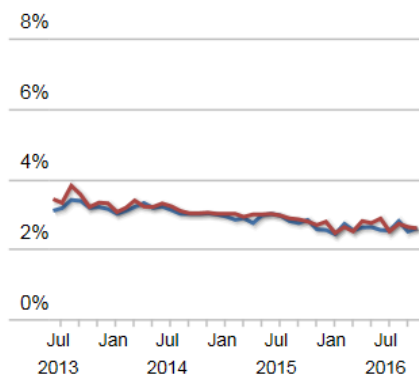
- + Inflation
- + Labor Market
- + Household Finance



The SCE Housing Survey, conducted annually since February 2014, collects rich and high-quality information on consumers' experiences and expectations regarding

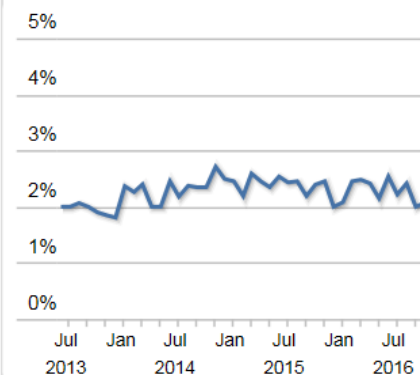
Inflation

Inflation expectations



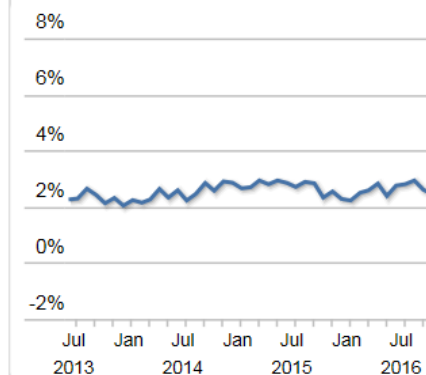
Labor Market

One-year ahead earnings growth expectations



Household Finance

One-year ahead household income growth expectations



One-Year Ahead Expected Change in Home Prices

Main Survey Results

- Inflation

Inflation expectations

Inflation uncertainty

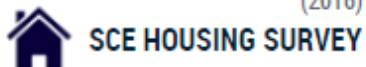
Home price change expectations

One-year ahead home price change uncertainty

One-year ahead commodity price change expectations

+ Labor Market

+ Household Finance



The SCE Housing Survey, conducted annually since February 2014, collects rich and high-quality information on consumers' experiences and expectations regarding housing.

VIEW

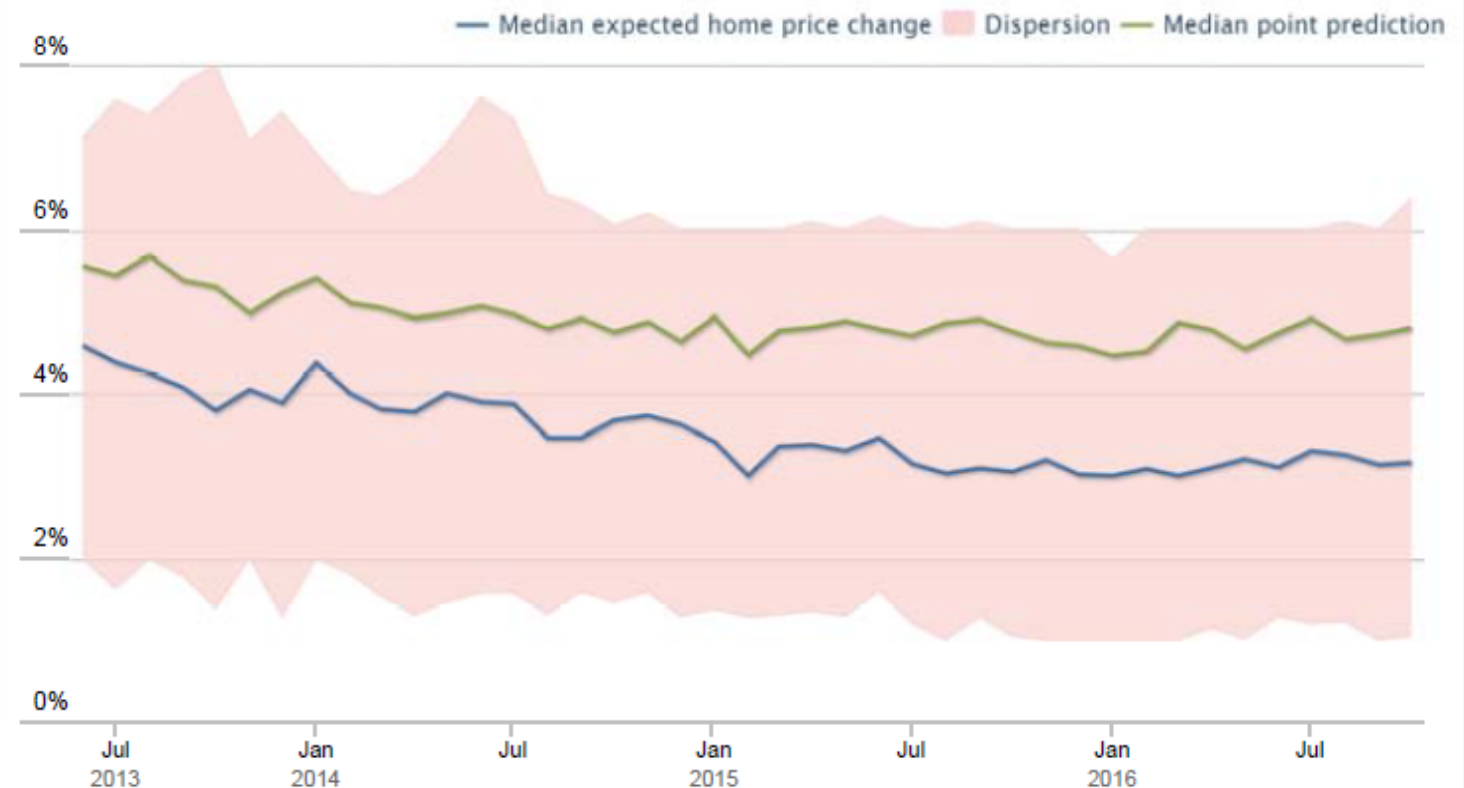
Home price change expectations

One-year ahead

OVERVIEW

DEMOGRAPHICS

Main 1-year detail 1- and 3-year point predictions



Source: New York Fed Survey of Consumer Expectations

One-Year Ahead Expected Change in Home Prices

Main Survey Results

- Inflation

Inflation expectations

Inflation uncertainty

Home price change expectations

One-year ahead home price change uncertainty

One-year ahead commodity price change expectations

+ Labor Market

+ Household Finance

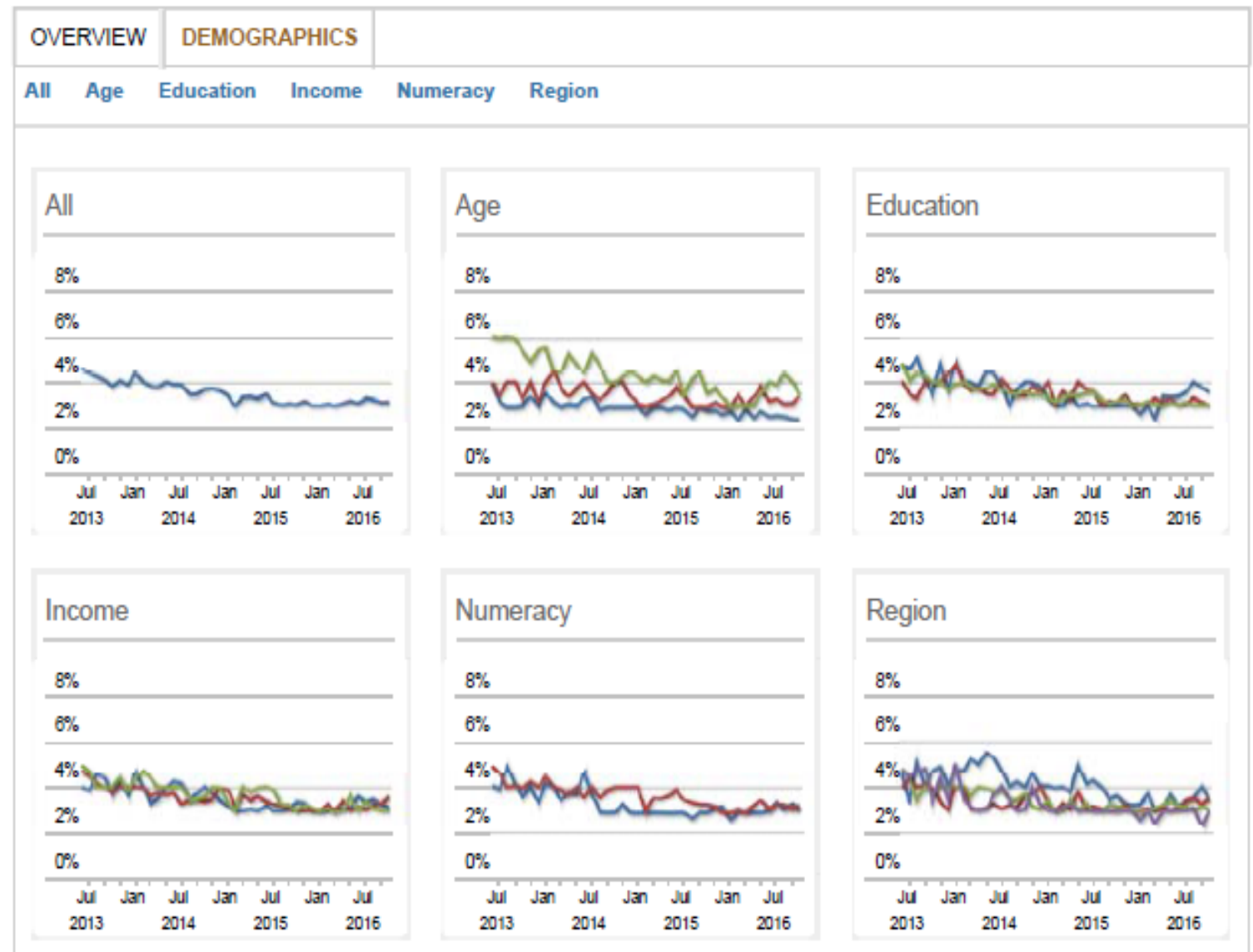


(2016)

SCE HOUSING SURVEY

The SCE Housing Survey, conducted annually since February 2014, collects rich and high-quality information on consumers' experiences and expectations regarding housing.

Home price change expectations



One-Year Ahead Expected Change in Home Prices

Main Survey Results

- Inflation

[Inflation expectations](#)

[Inflation uncertainty](#)

[Home price change expectations](#)

[One-year ahead home price change uncertainty](#)

[One-year ahead commodity price change expectations](#)

+ Labor Market

+ Household Finance



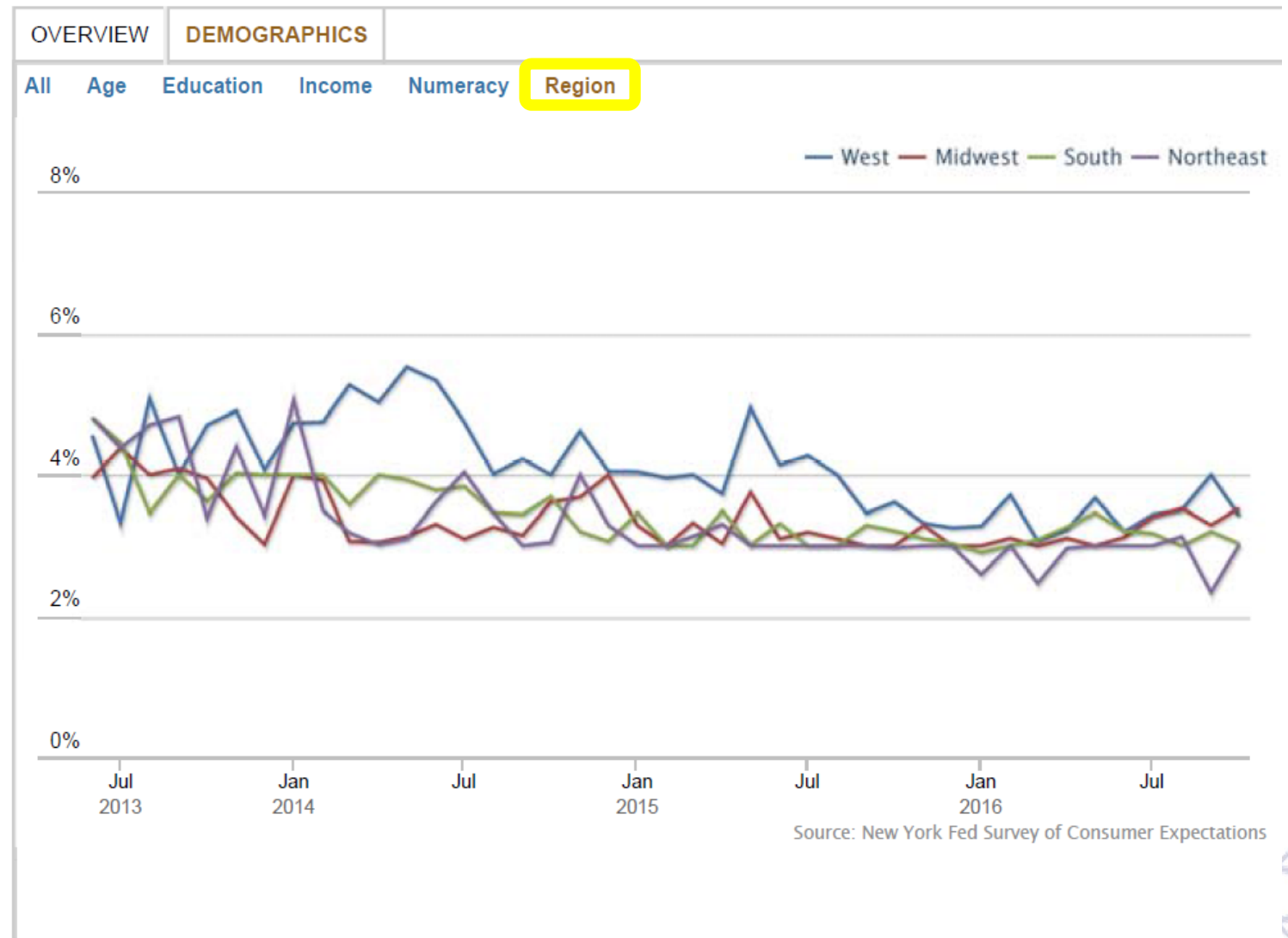
(2016)
SCE HOUSING SURVEY

The SCE Housing Survey, conducted annually since February 2014, collects rich and high-quality information on consumers' experiences and expectations regarding housing.

VIEW

Home price change expectations

Median expected home price change (One-year ahead)



A Closer Look at Inflation Expectations

Inflation Expectations

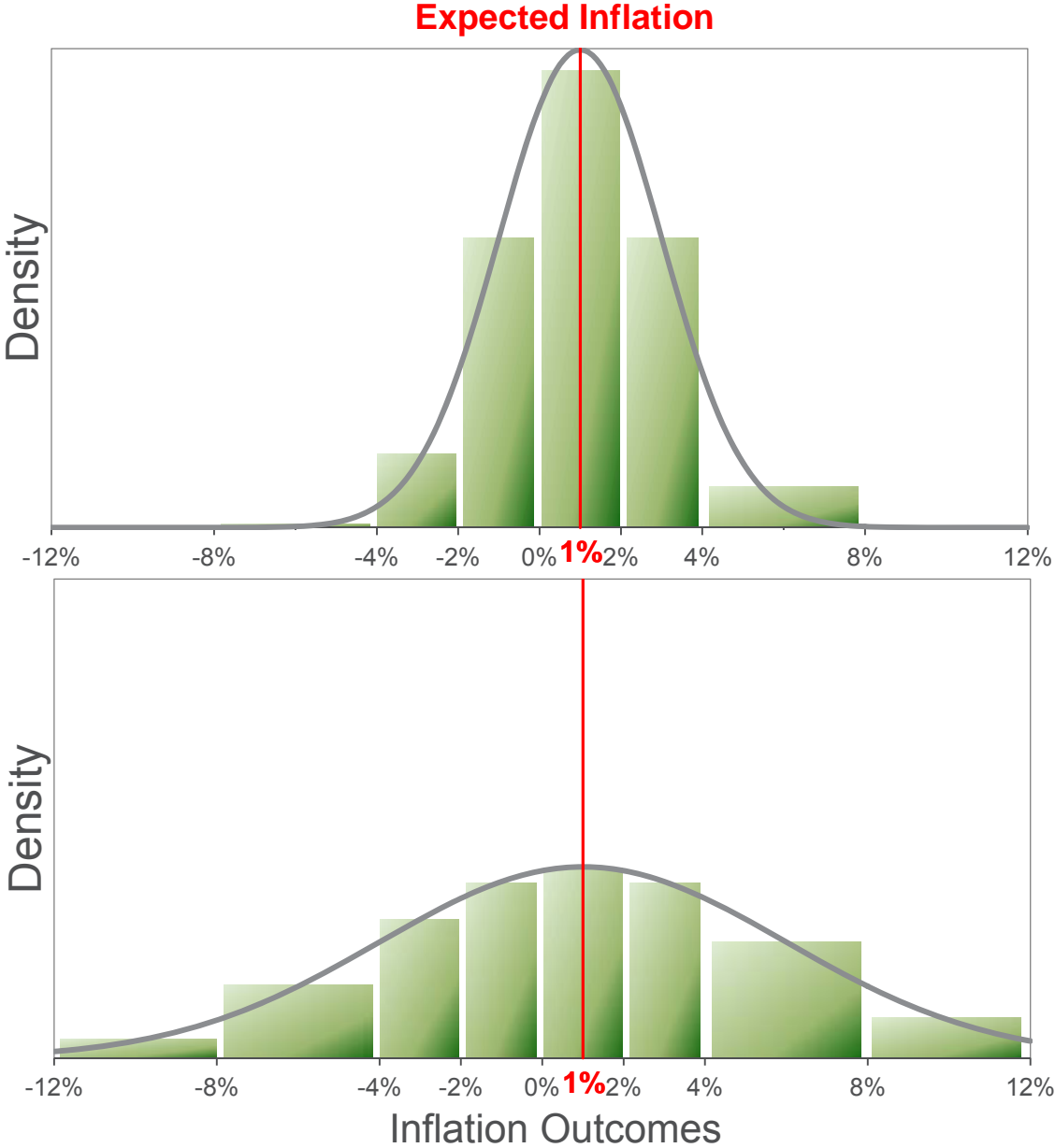
- Density forecast elicitation
- How do we use density forecasts?
- Using our panel to study changes in expected inflation

Inflation Density Forecasts: Question Text

In your view, what would you say is the percent chance that, **over the next 12 months, ...**

<i>the rate of inflation will be 12% or higher</i>	_____
<i>the rate of inflation will be between 8% and 12%</i>	_____
<i>the rate of inflation will be between 4% and 8%</i>	_____
<i>the rate of inflation will be between 2% and 4%</i>	<u>30</u>
<i>the rate of inflation will be between 0% and 2%</i>	<u>50</u>
<i>the rate of deflation will be between 0% and 2%</i>	<u>20</u>
<i>the rate of deflation will be between 2% and 4%</i>	_____
<i>the rate of deflation will be between 4% and 8%</i>	_____
<i>the rate of deflation will be between 8% and 12%</i>	_____
<i>the rate of deflation will be 12% or more</i>	_____
% Total	<u>100</u>

Inflation Density Forecasts: Bin Responses

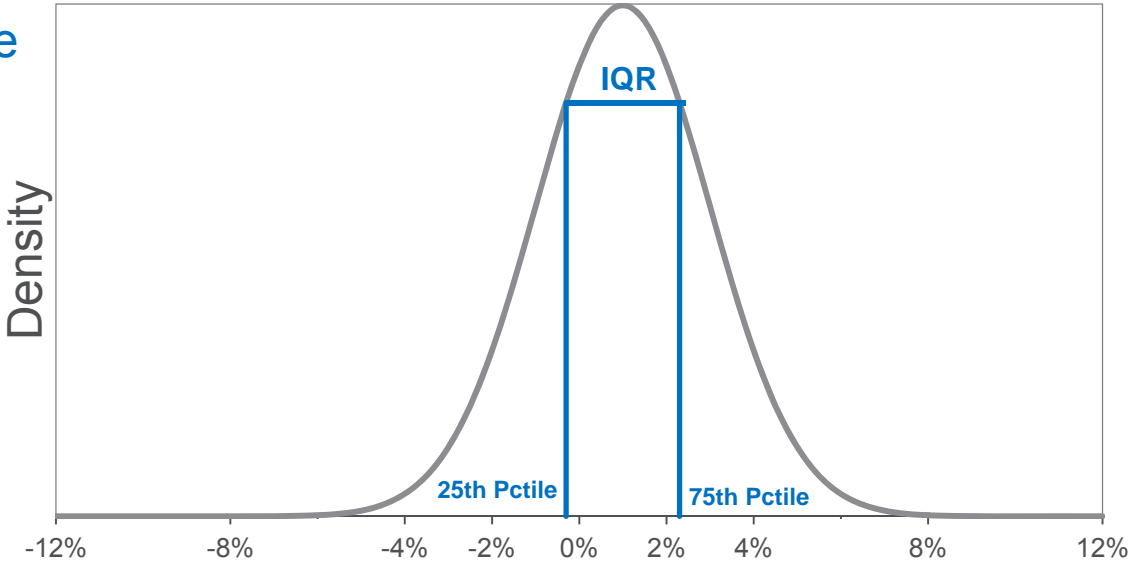


Person 1

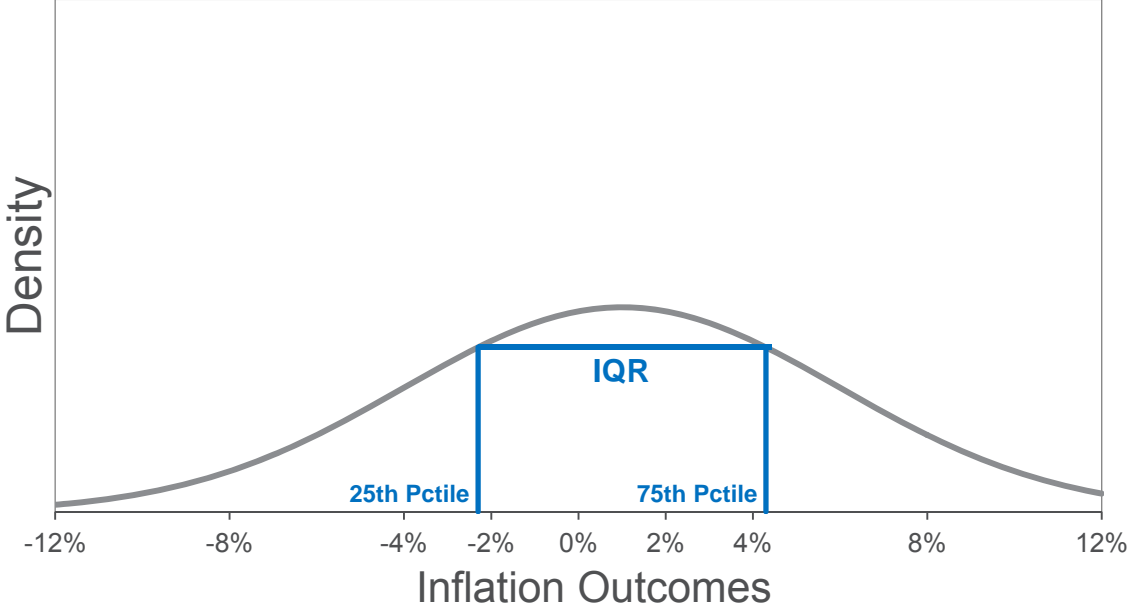
Person 2

Inflation Density Forecasts: Uncertainty

IQR = Inter-Quartile Range

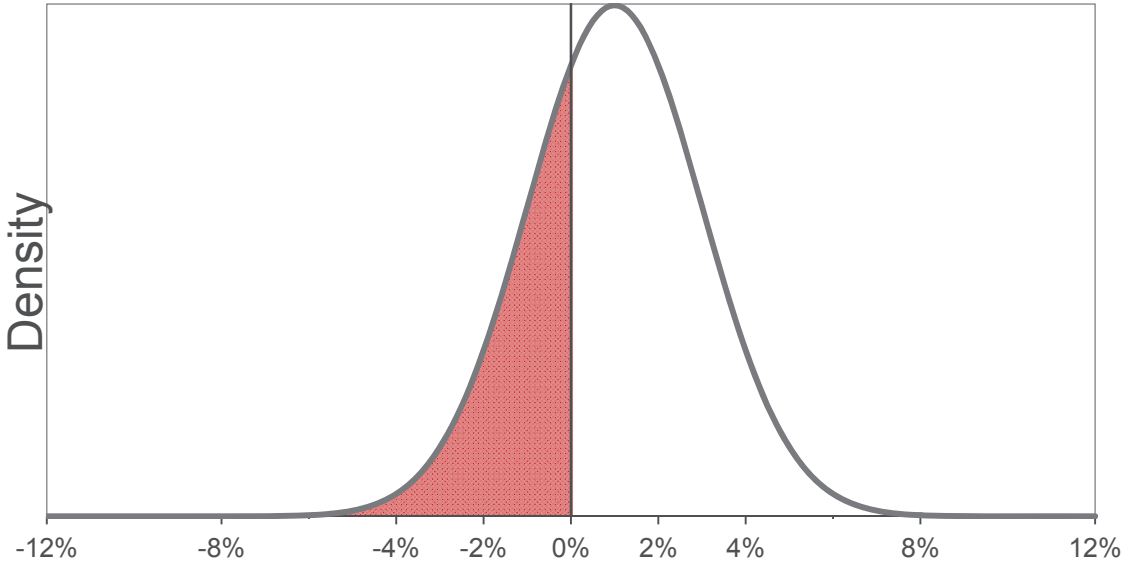


Person 1

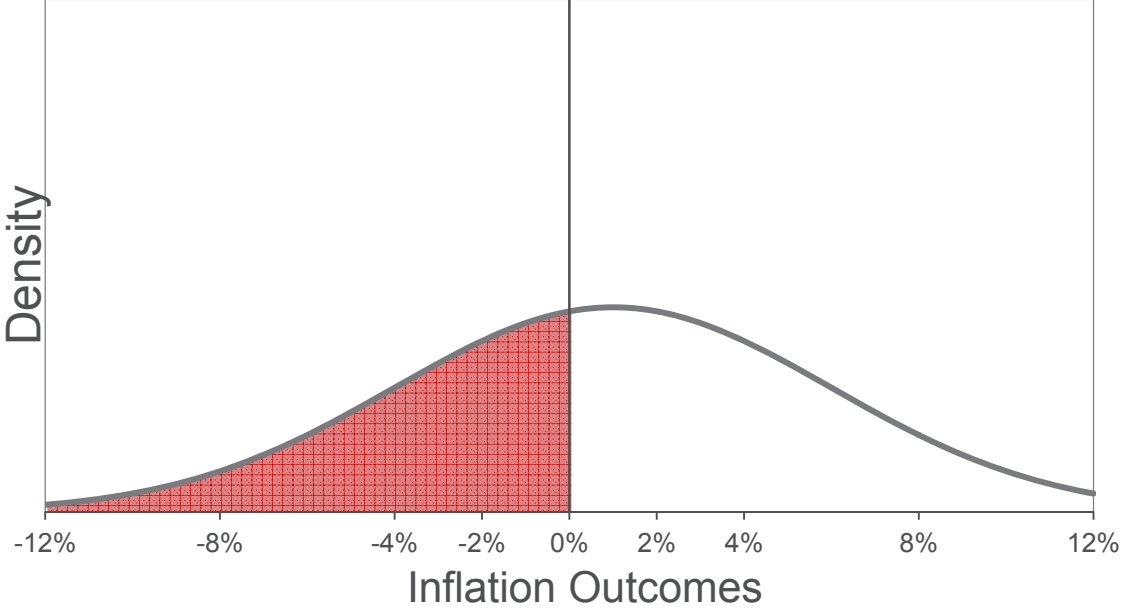


Person 2

Inflation Density Forecasts: Deflation Probability

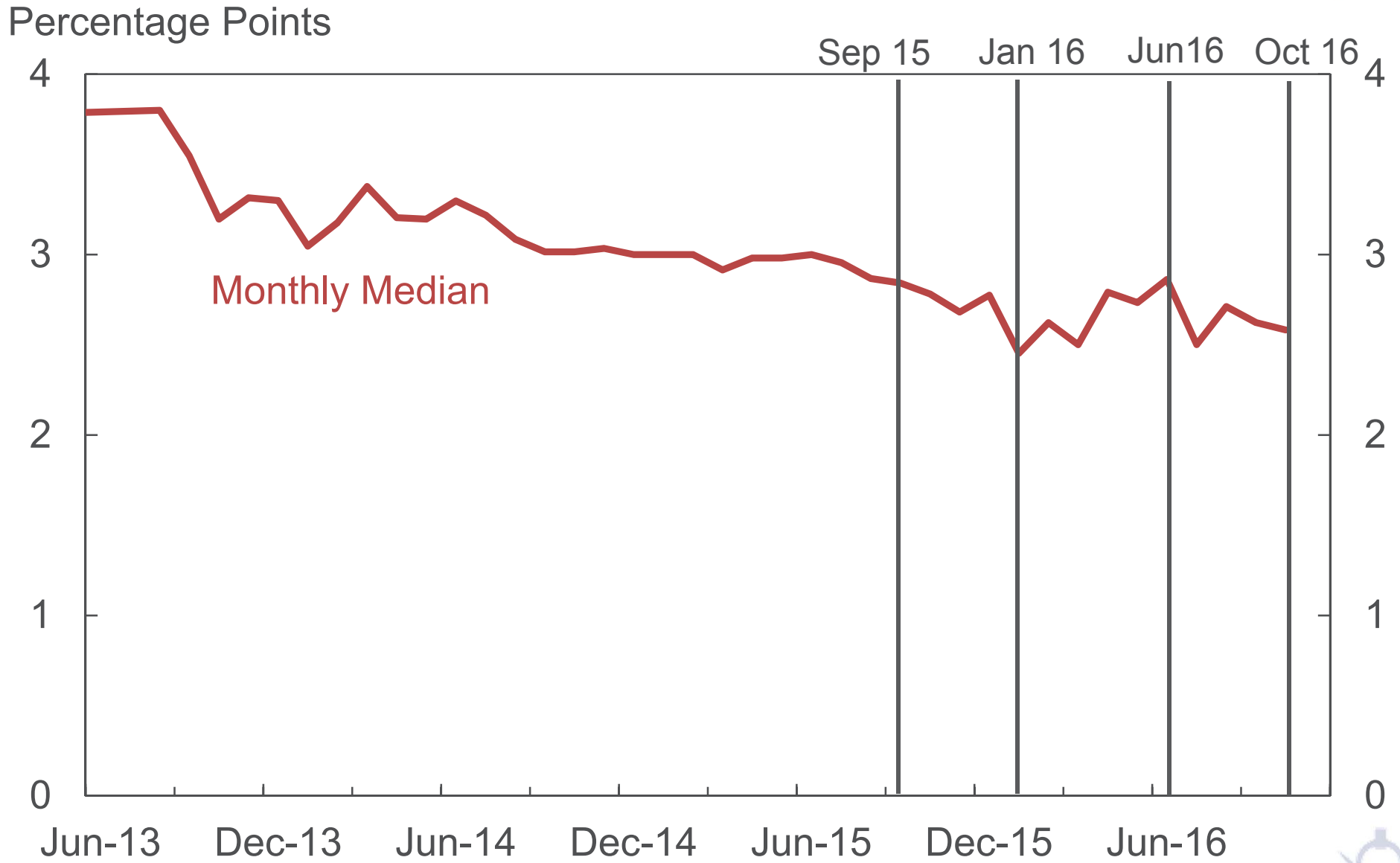


Person 1



Person 2

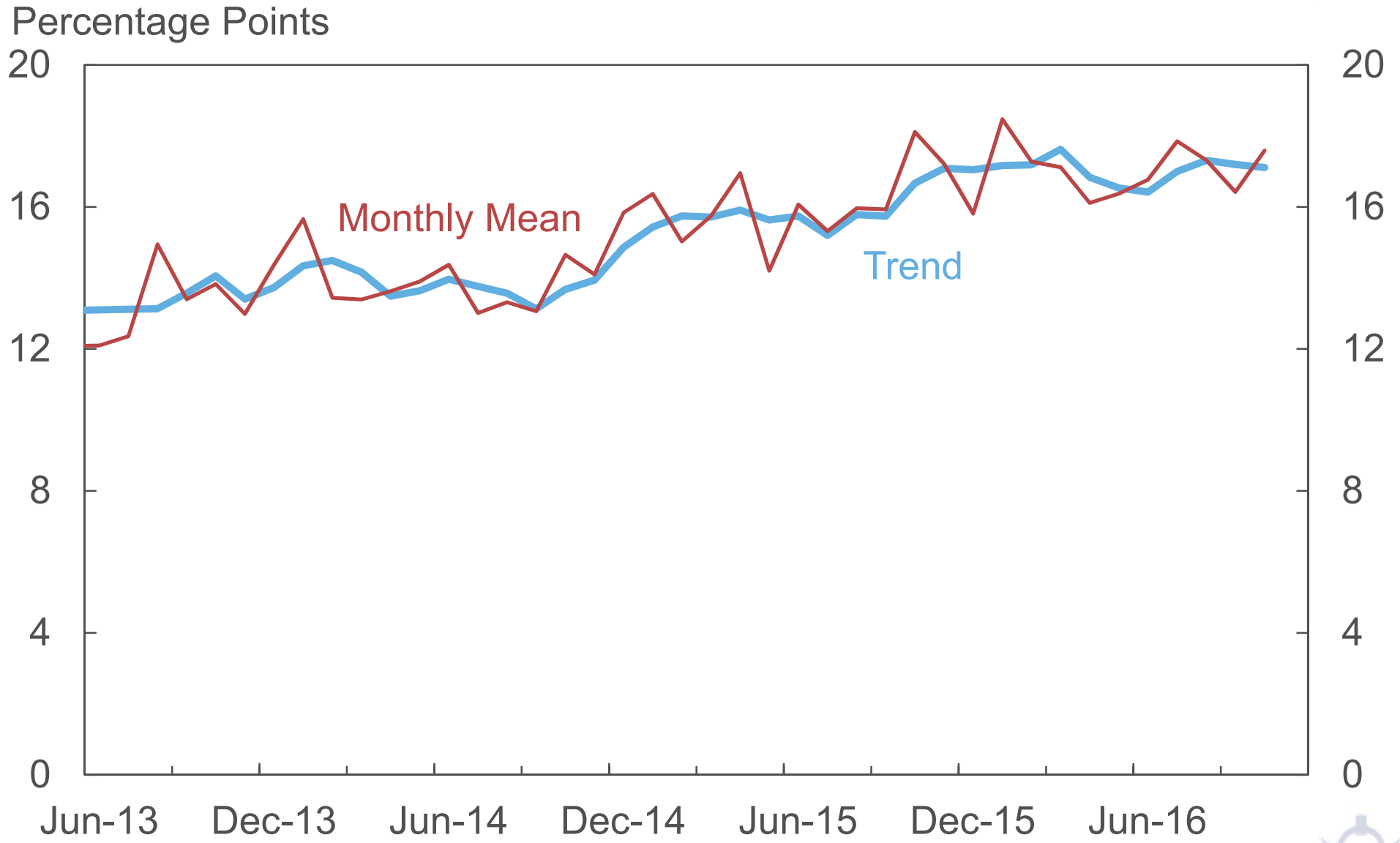
Median Three-Year Ahead Expected Inflation



Source: Survey of Consumer Expectations



Mean Three-Year Ahead Probability of Deflation



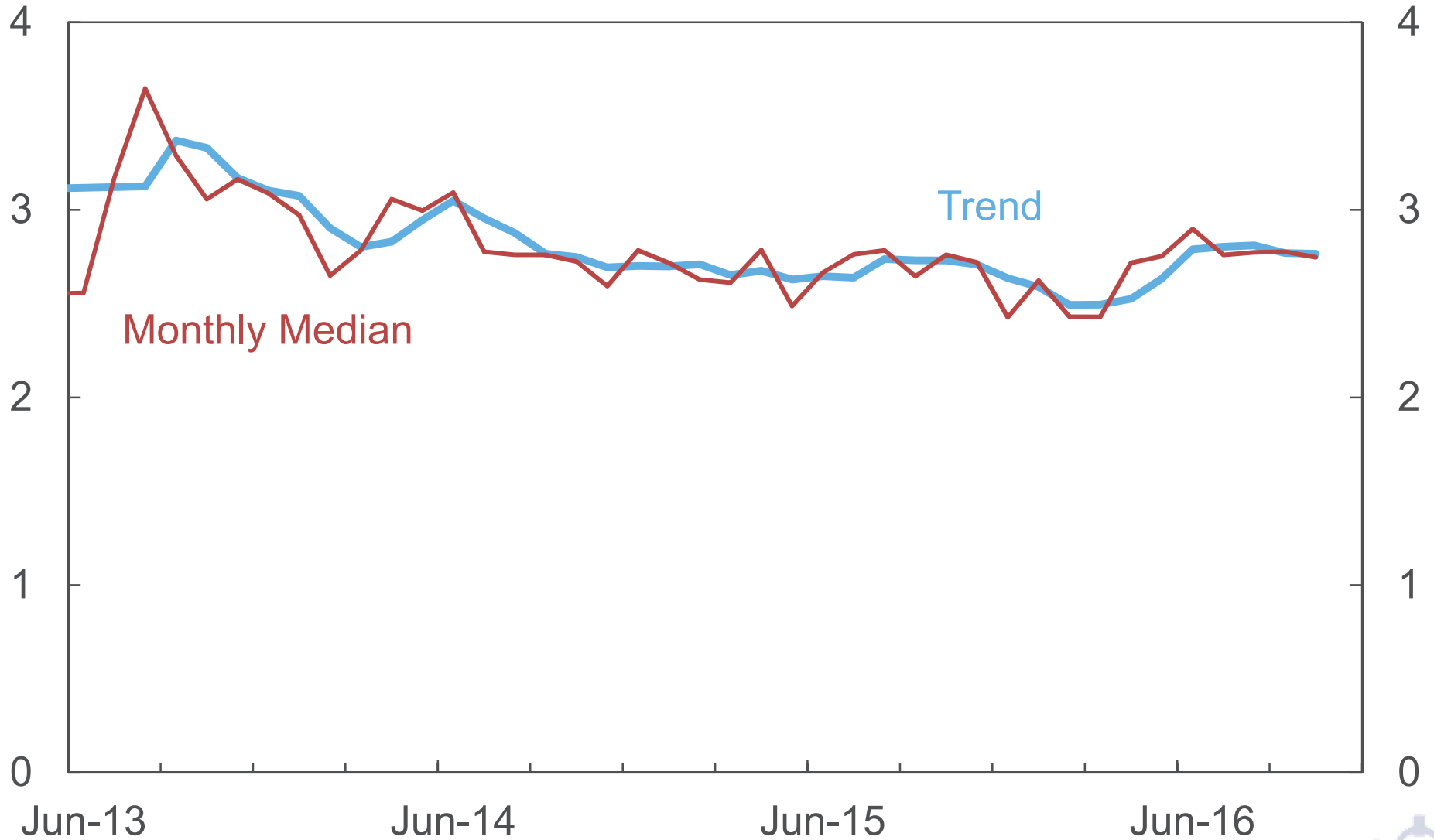
Source: Survey of Consumer Expectations

Trend is 3MMA



Median Three-Year Ahead Inflation Uncertainty

Percentage Points

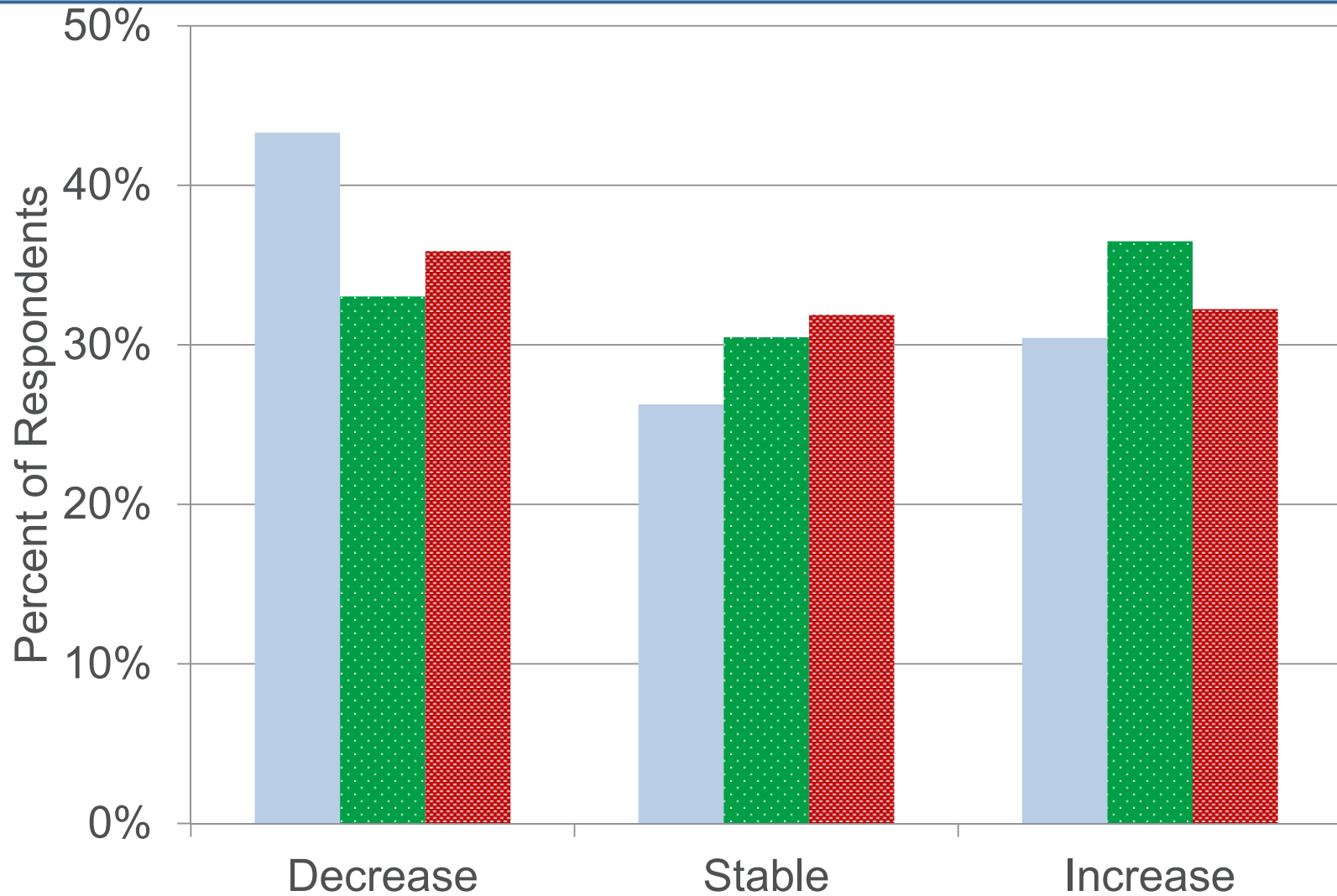


Source: Survey of Consumer Expectations

Trend is 3MMA



Individual Changes in Three-Year Ahead Expected Inflation



■ Sep 15 - Jan 2016 ■ Jan 16 - Jun 16 ■ Jun 16 - Oct 16

Decrease: < -50 bps. Stable: 0 +/- 50 bps. Increase: > 50 bps

Change in Three-Year Ahead Expected Inflation

Demographic	Sep '15-Jan '16	Jan '16-Jun '16	Jun '16-Oct '16
All	-0.46	0.24	-0.06
Age under 40	-0.45	0.05	0.64
Age 40-60	-0.87	0.70	0.22
Age over 60	0.07	0.59	-1.37
Income under \$50k	-0.05	0.05	-0.10
Income \$50k-100k	-0.25	0.03	-0.08
Income over \$100k	-0.82	0.65	-0.03
High School or Less	-0.32	0.17	-0.15
Some College	-0.83	-0.01	0.01
College or Higher	-0.36	1.16	-0.09

Changes expressed in percentage points (trimmed means)



SCE Credit Access Survey

SCE Credit Access Survey - Objectives

- Important aspects of consumer credit demand and access not fully understood:
 - Share of discouraged borrowers: those with credit need who don't apply
 - Consumer expectations of future credit demand and access
 - Consumer experiences in real time as perceived by borrowers
- SCE Credit Access Survey measures *experiences* and *expectations* in credit markets as perceived and reported by consumers
 - Credit demand, applications and rejections by loan type: mortgages, refinances, credit cards, auto loans
 - Consumers surveyed every 4 months since October 2013
 - We can differentiate by age and self-reported credit score of consumers
 - Can study extent to which expectations are predictive of individuals' future outcomes – potential use as leading indicator of credit markets

Credit Access Public Website

The SCE Credit Access Survey provides information on consumers' experiences and expectations regarding credit demand and credit access. Every four months, SCE panelists are asked whether they applied for credit in the past 12 months, and the resulting outcomes. They are also asked about their expectations of applying for credit over the next 12 months, and the perceived likelihood of those applications being accepted. We collect this information for five specific credit products: auto loans, credit cards, credit card limit increases, mortgages, and mortgage refinancing. Survey findings (in instances with sufficient sample sizes) are also presented separately by age and self-reported credit score subgroups.

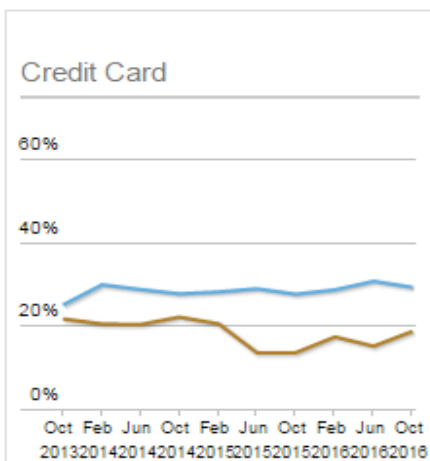
[+ DOWNLOADS](#)

CREDIT ACCESS

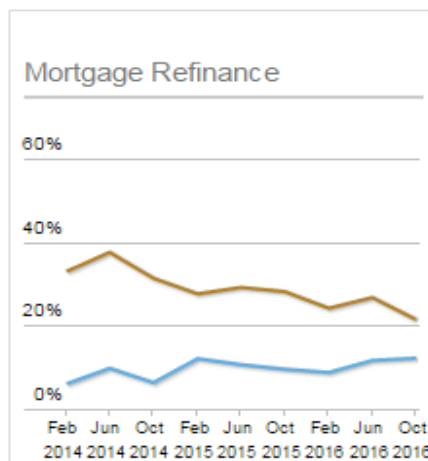
- [+ EXPERIENCES](#)
- [+ EXPECTATIONS](#)

[Back to Main Survey Results](#)

Experiences

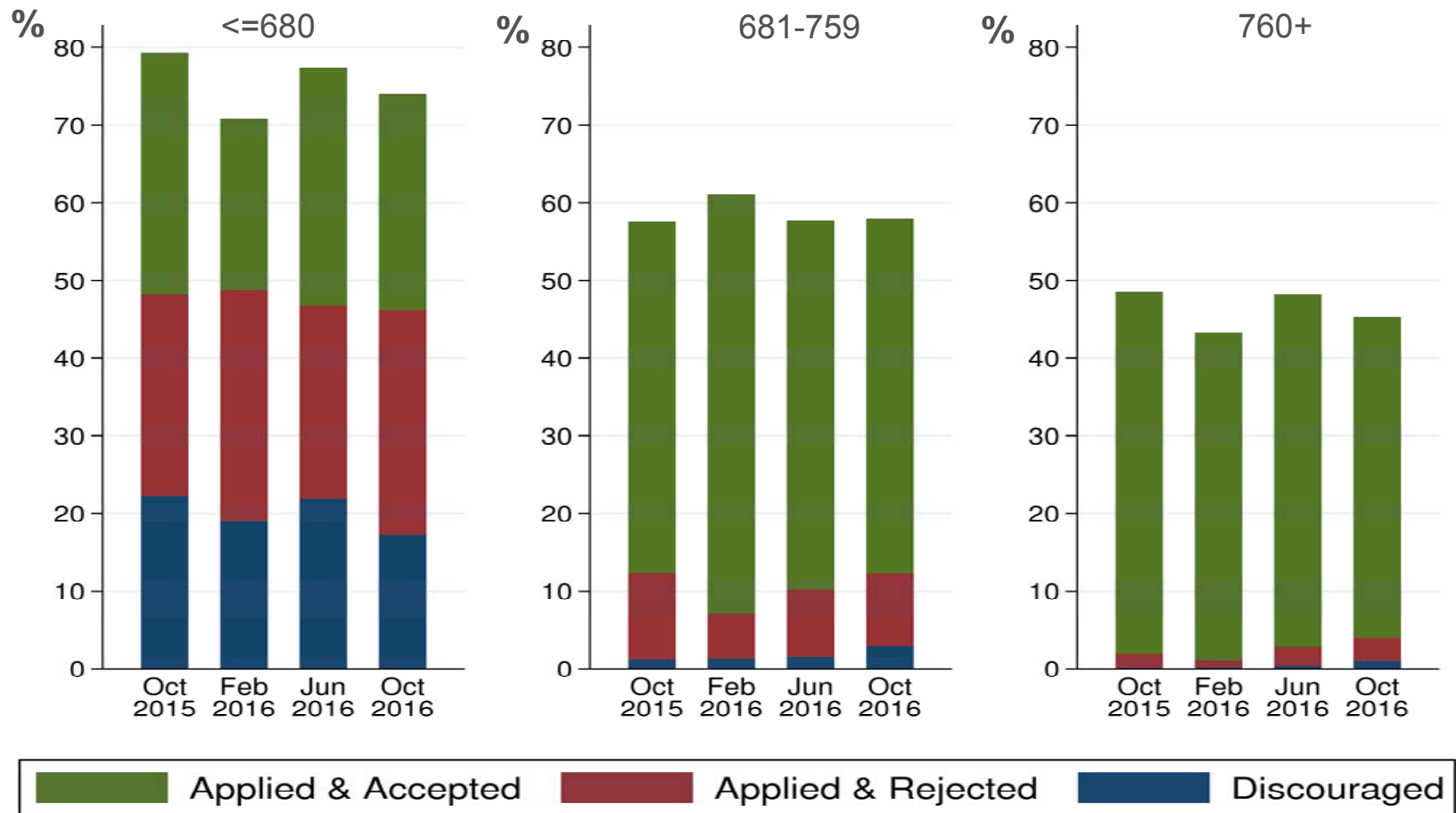


Expectations



Types of Credit-Seekers, by Credit Score

Credit Experiences over the past 12 months

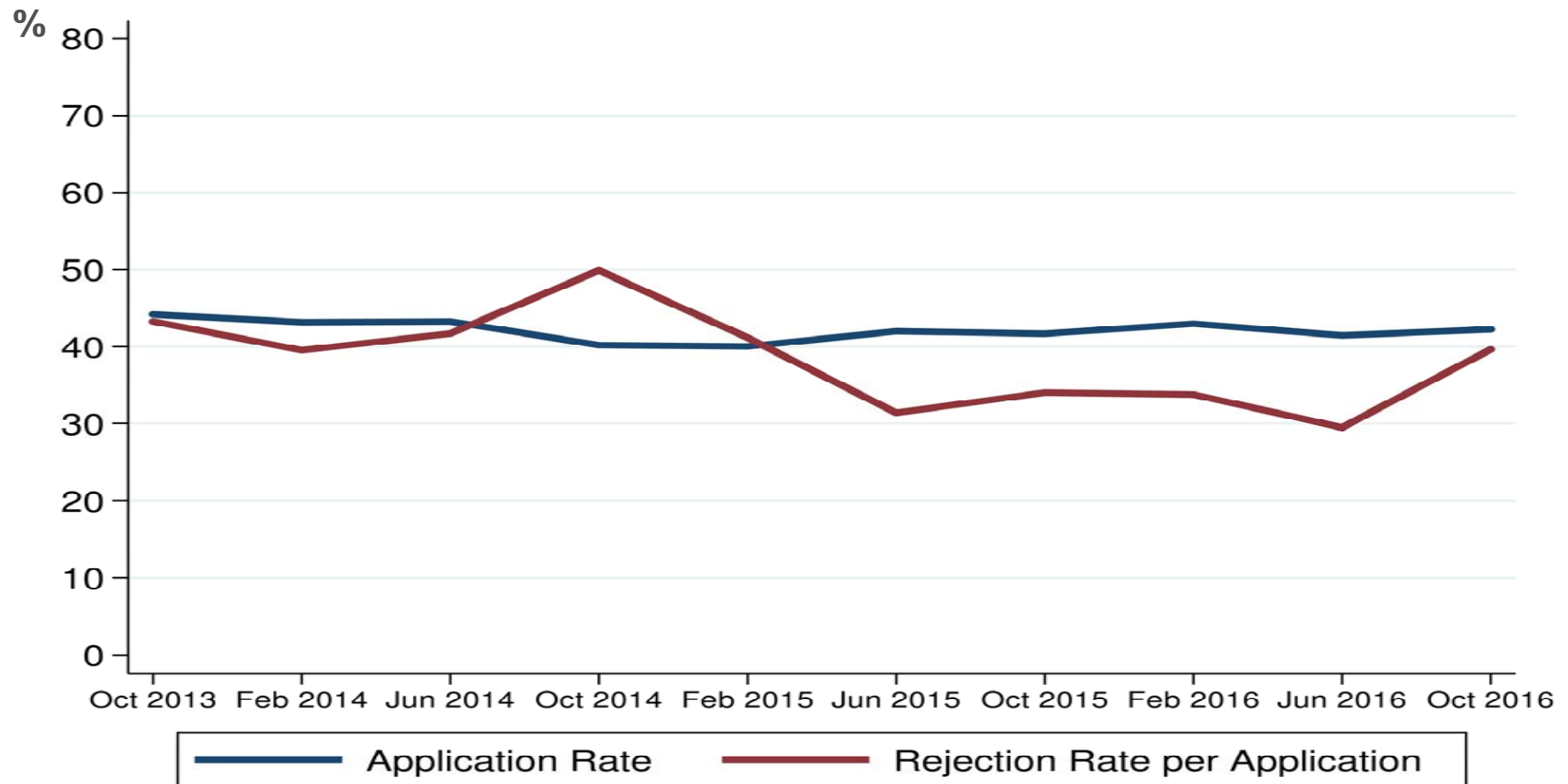


Applied and Accepted: Applied for credit and all applications were fully or partially granted
 Applied and Rejected: Applied for credit and an application was fully rejected
 Discouraged: Did not apply for credit because did not think would get approved

Source: SCE Credit Access Survey

Credit Application and Rejection Rates

Application and rejection rates over the past 12 months (any type of credit)

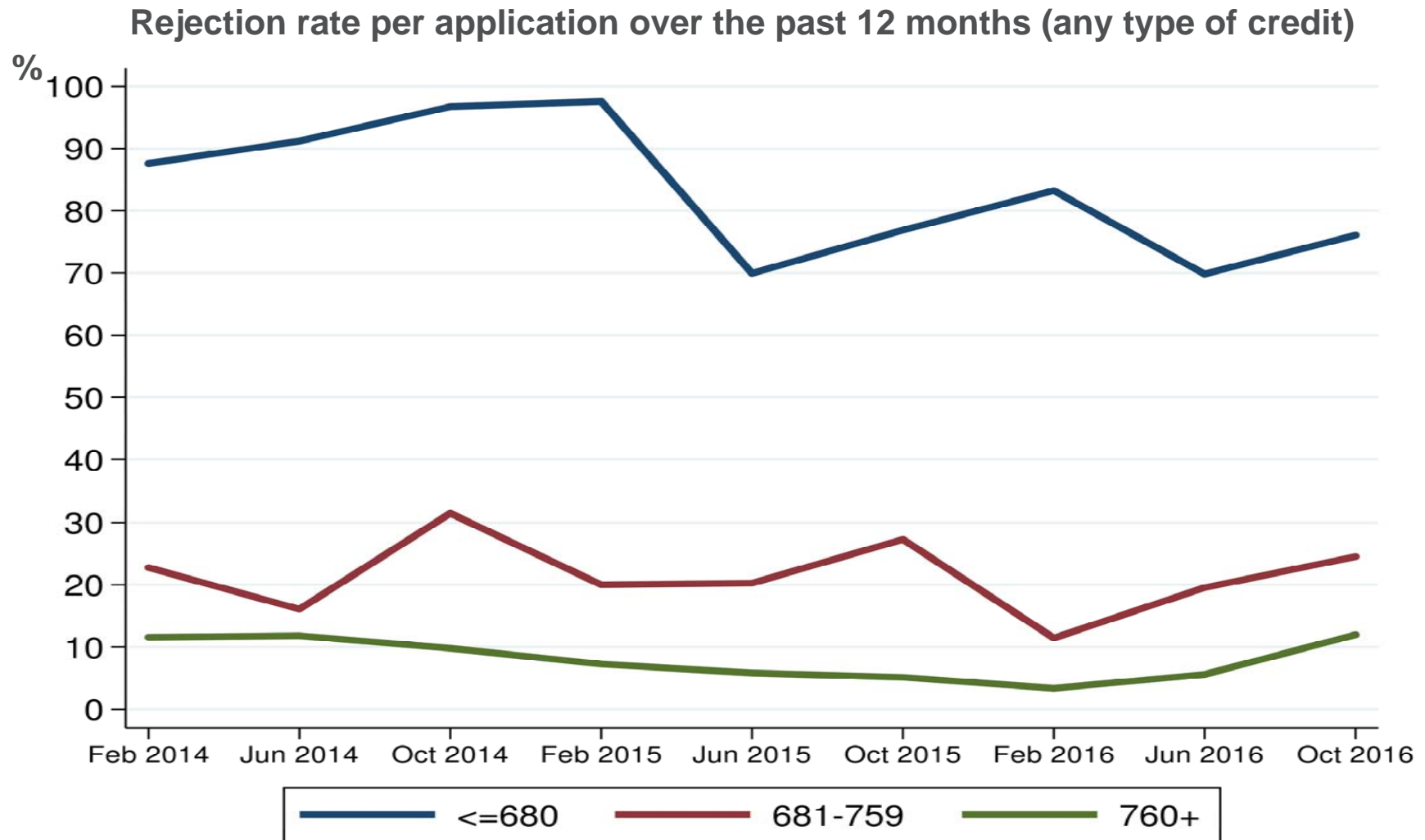


Application rate: proportion of respondents who applied for any of 7 credit products over the past 12 months

Rejection rate: proportion of credit applications fully rejected over the past 12 months (an individual could have multiple applications)

Source: SCE Credit Access Survey

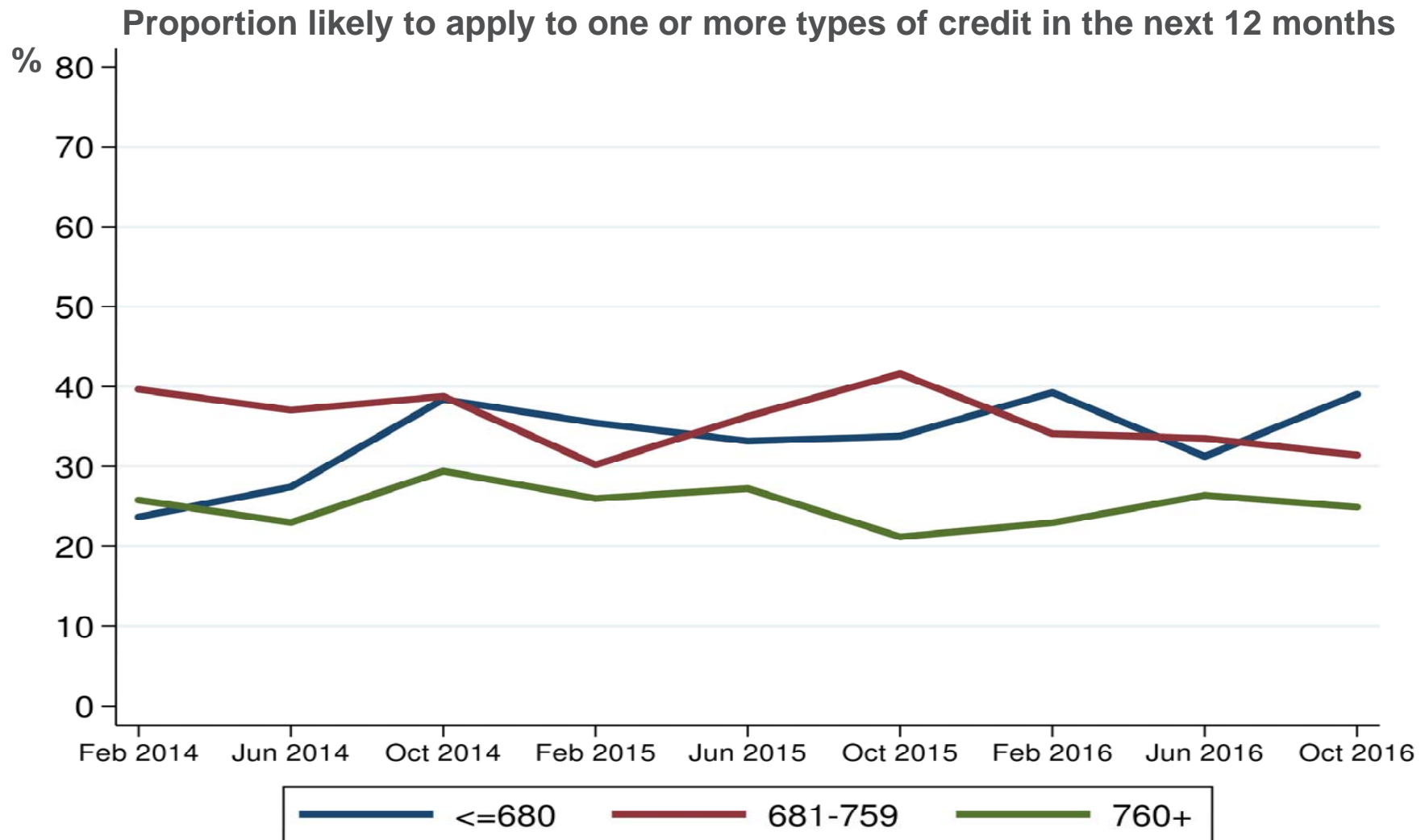
Credit Rejection Rates, by Credit Score



Rejection rate: Proportion of credit applications fully rejected over the past 12 months (an individual could have multiple applications)

Source: SCE Credit Access Survey

Expectations of Credit Applications, by Credit Score

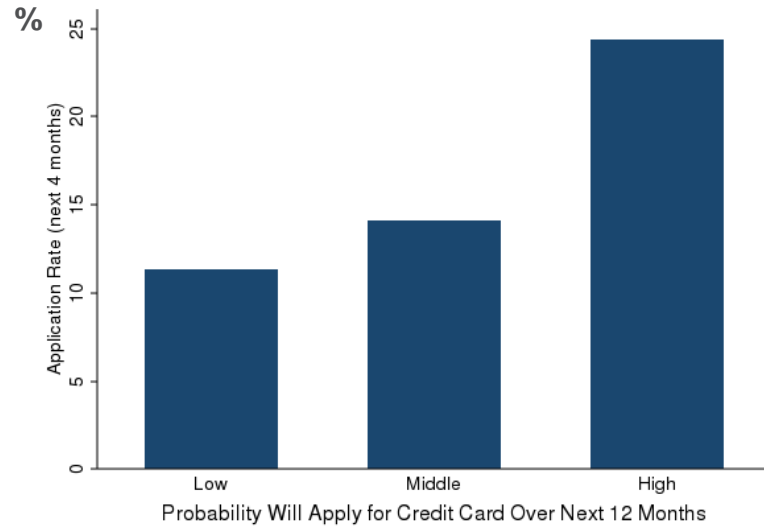


Proportion likely to apply is measured as fraction of respondents who respond that they are “Somewhat Likely” or “Very Likely” to apply for *any* of 7 credit products over the next 12 months

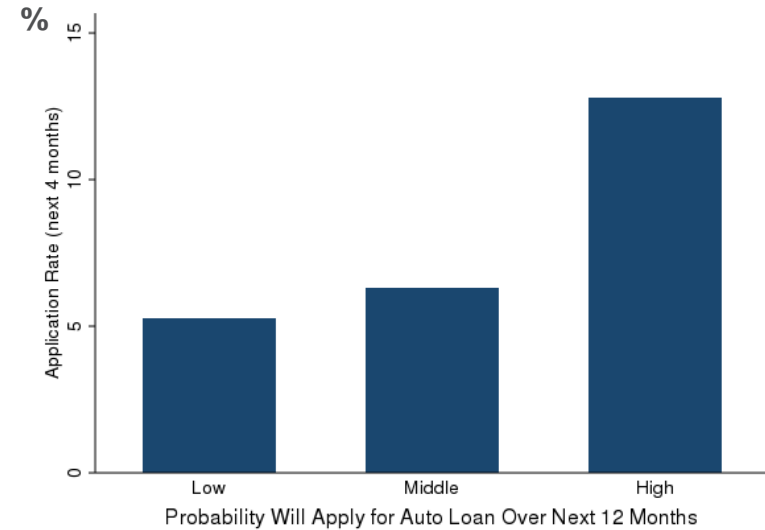
Source: SCE Credit Access Survey

Credit Expectations – Are They Predictive of Outcomes?

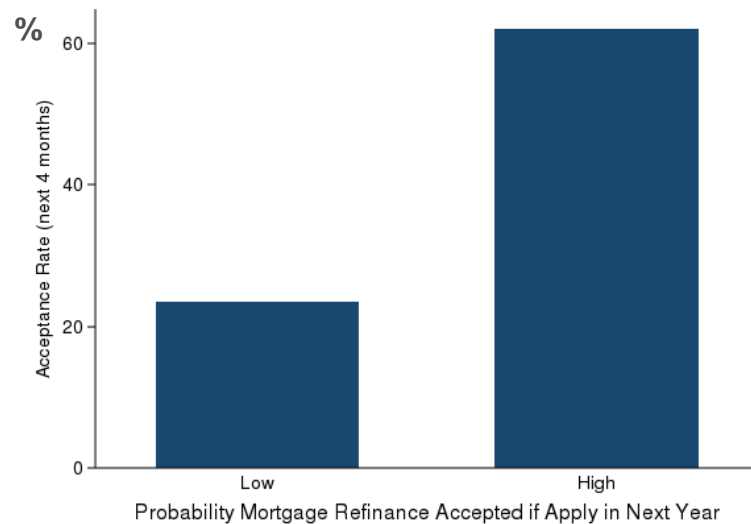
Applied for Credit Card within 4 Months of Survey



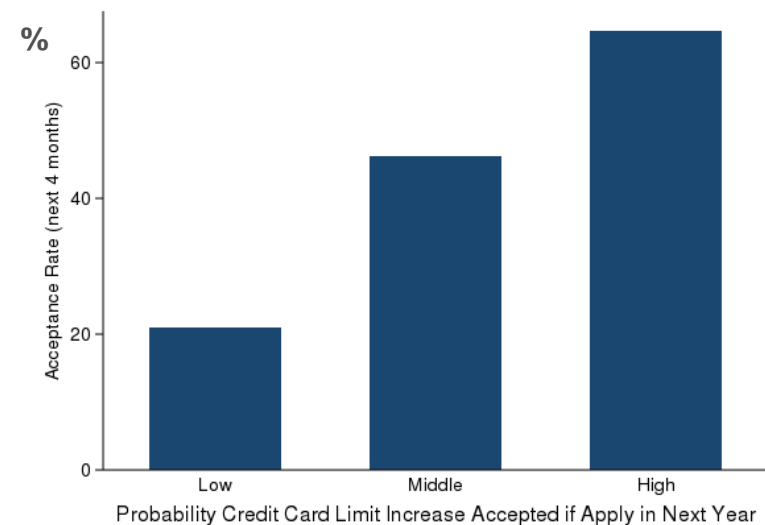
Applied for Auto Loan within 4 Months of Survey



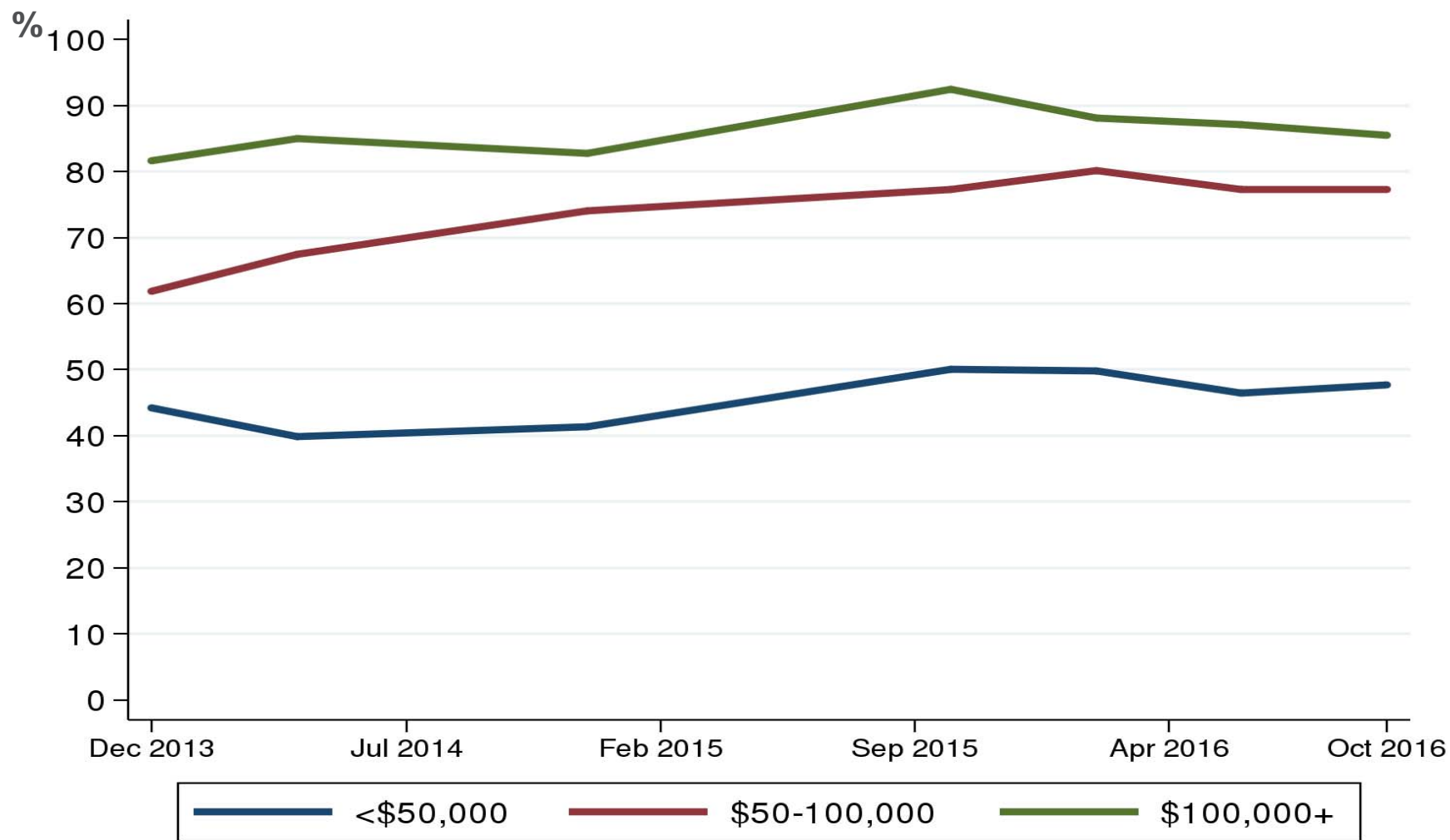
Mortgage Refinance Accepted



Credit Card Limit Increase Accepted



Percent chance able to come up with \$2,000 within the next month - by income



What do you think is the percent chance that you could come up with \$2,000 if an unexpected need arose within the next month?

Source: SCE Credit Access Survey

What source would you most likely draw upon to come up with \$2,000?

%	All	Income <50K	Income 50K-100K	Income >100K
<i>Own Savings</i>	65.3	45.6	73.7	86.1
<i>Borrow from Bank, Debit or Credit Card</i>	13.8	16.3	15.1	8.0
<i>Borrow from Friends and Family</i>	13.9	25.3	7.5	3.7
<i>Borrow from Payday Lender or Pawn shop</i>	1.7	3.3	0.8	0.3
<i>Other</i>	5.4	9.4	3.0	1.9

Based on sample of respondents who assigned a nonzero probability to being able to come up with \$2,000.

Source: October 2016 SCE Credit Access Survey

SCE Credit Access Survey Summary

- Collects rich data on household credit experiences and expectations
- Find that over the past 3 years between 5% to 7% of respondents were “discouraged borrowers”
- Expectations are predictive of individuals’ future behavior and outcomes
- On average respondents assign a 66% probability of being able to come up with \$2,000 in the next month
 - Overall, 32% consider it *more likely* that they won’t be able to do so:
 - 54% among those with incomes under \$50k,
 - 11% for those with incomes over \$100k

SCE Labor Market Survey

Motivation

Little is known about labor market participants'

- actual search behavior
- expectations regarding labor market outcomes (such as offers), and their formation/updating

The SCE Labor Market Survey, fielded every four months, can shed light on:

- How are workers' expectations changing?
- Are expectations predictive of outcomes for individuals?
- How do workers update their expectations?
- Are expectations are a leading indicator of the labor market?

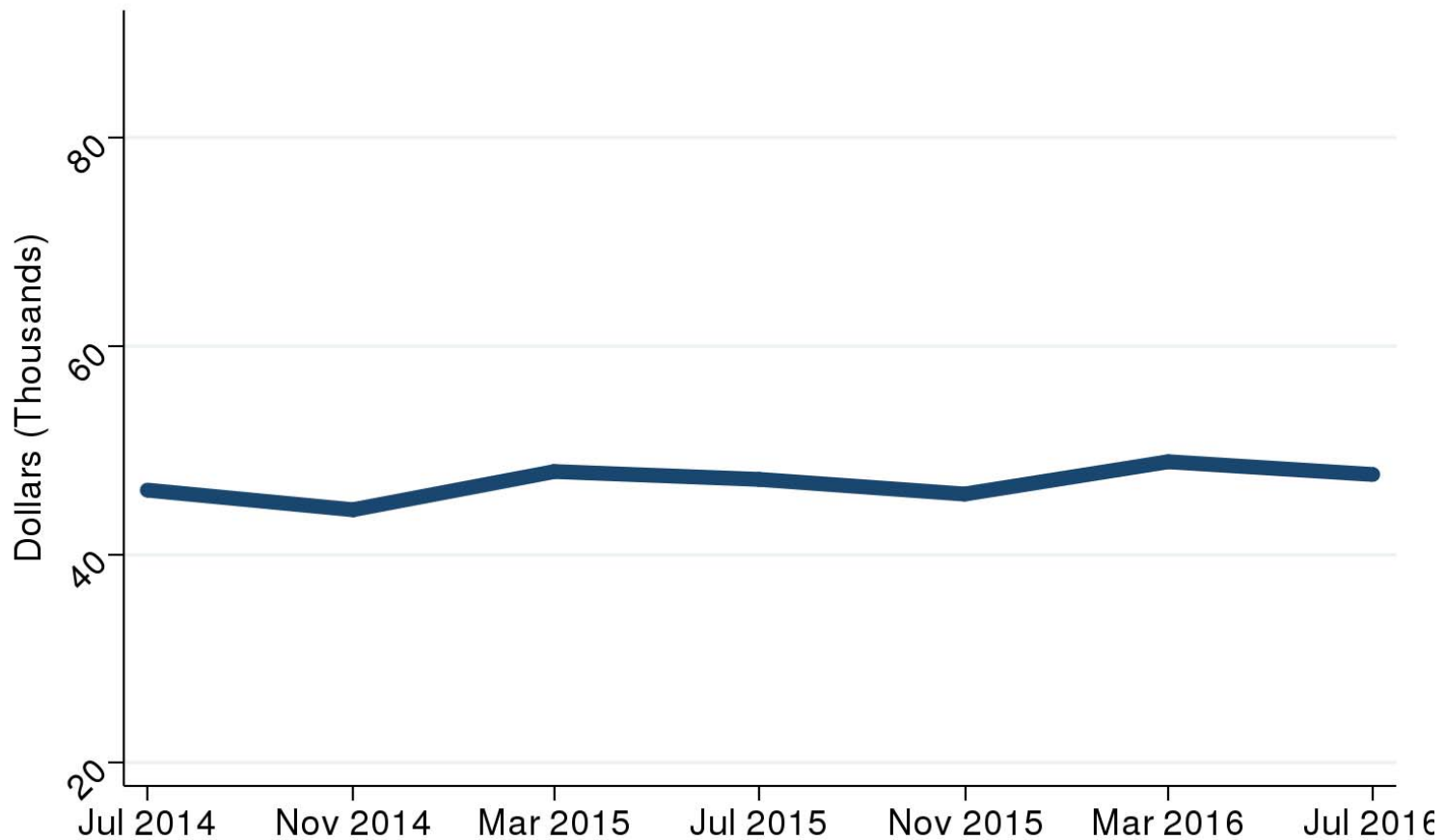
Labor Market Survey

- Fielded every 4 months, starting July 2014
- Respondents asked about:
 - Current labor market status
 - Characteristics of current/previous job; job satisfaction etc.
 - Job search
 - Reservation wage
 - The lowest wage or salary someone would accept for a job
 - Job offers received in past 4 months
 - Expectations (over the 4-month horizon) regarding:
 - Labor market transitions
 - Job offers (number; average earnings)

Panel feature and retrospective/forward-looking questions allow us to study the link between expectations and outcomes; updating etc.



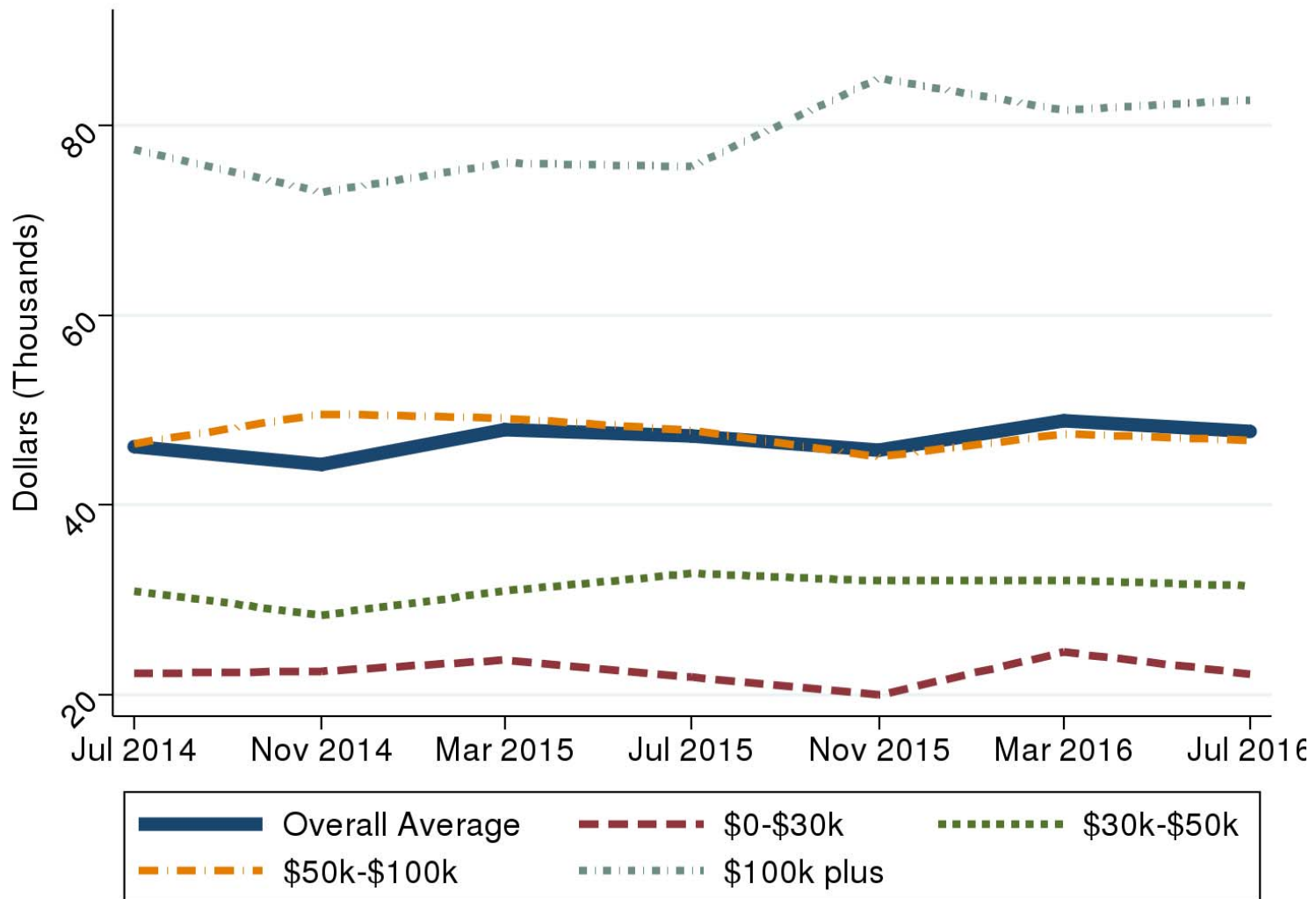
Expected Average Offer



Think about the job offers that you may receive within the coming four months. Roughly speaking, what do you think the average annual salary for these offers will be for the first year?

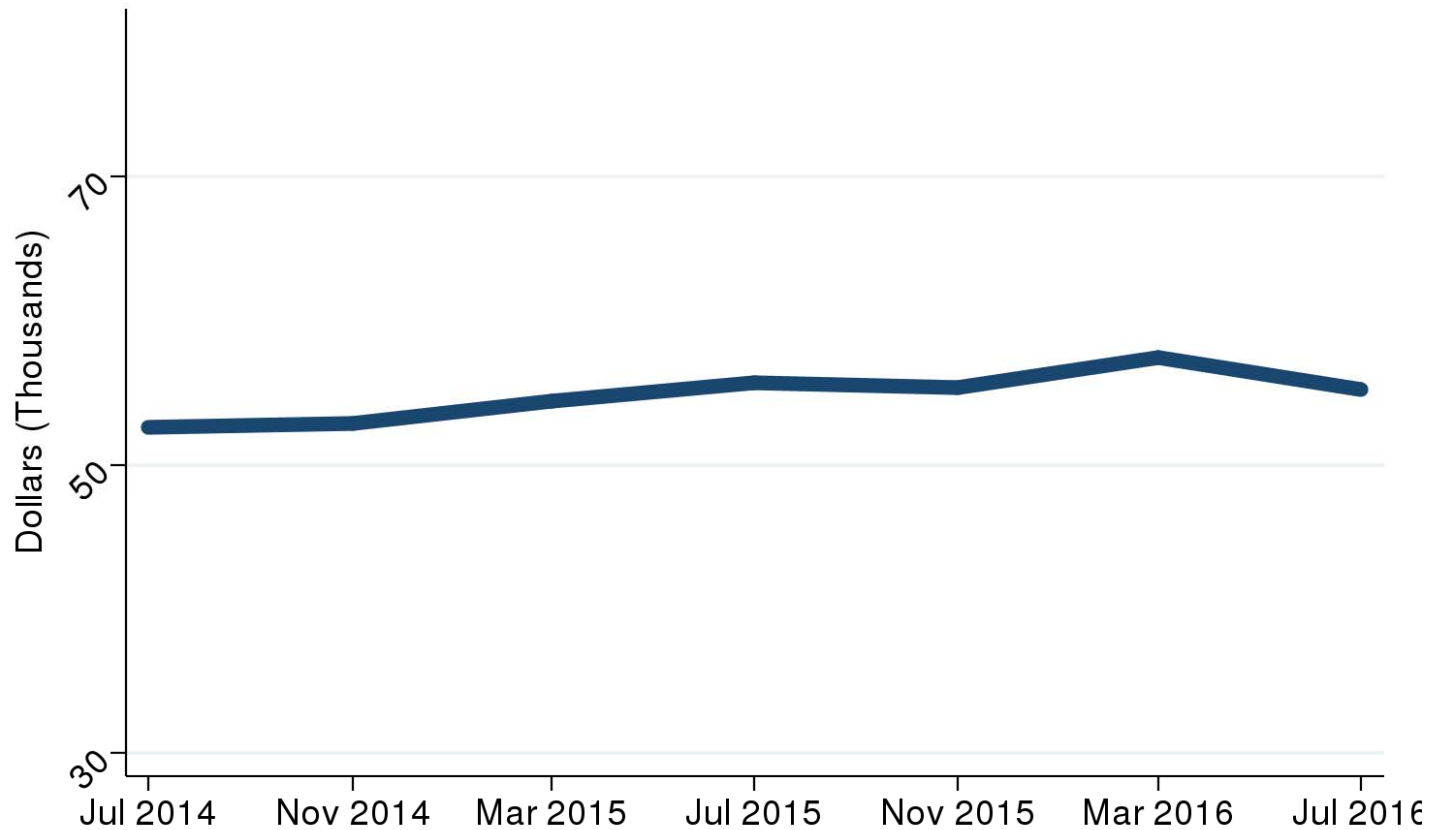


Expected Average Offer, by Income



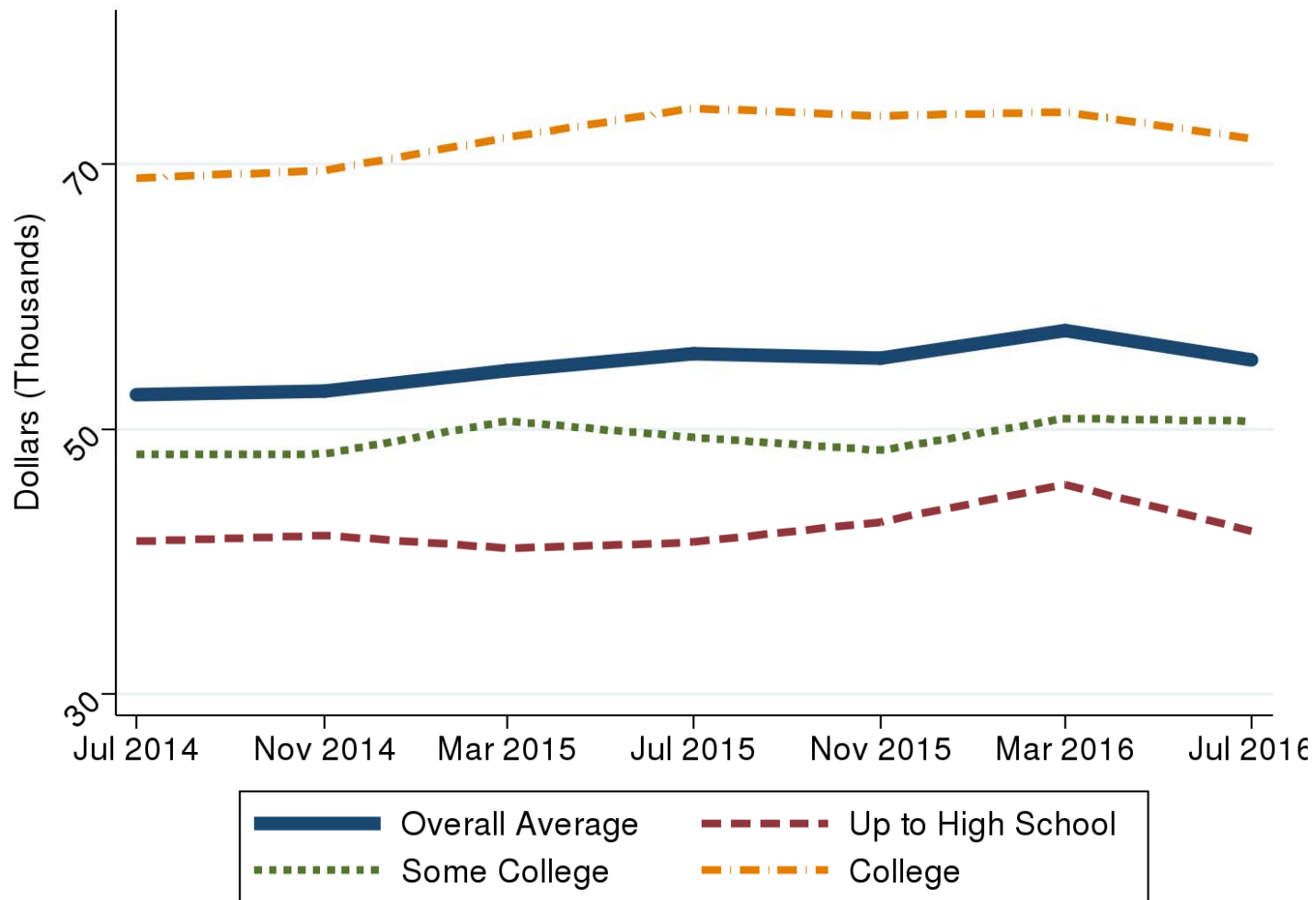
Think about the job offers that you may receive within the coming four months. Roughly speaking, what do you think the average annual salary for these offers will be for the first year?

Average Reservation Wage



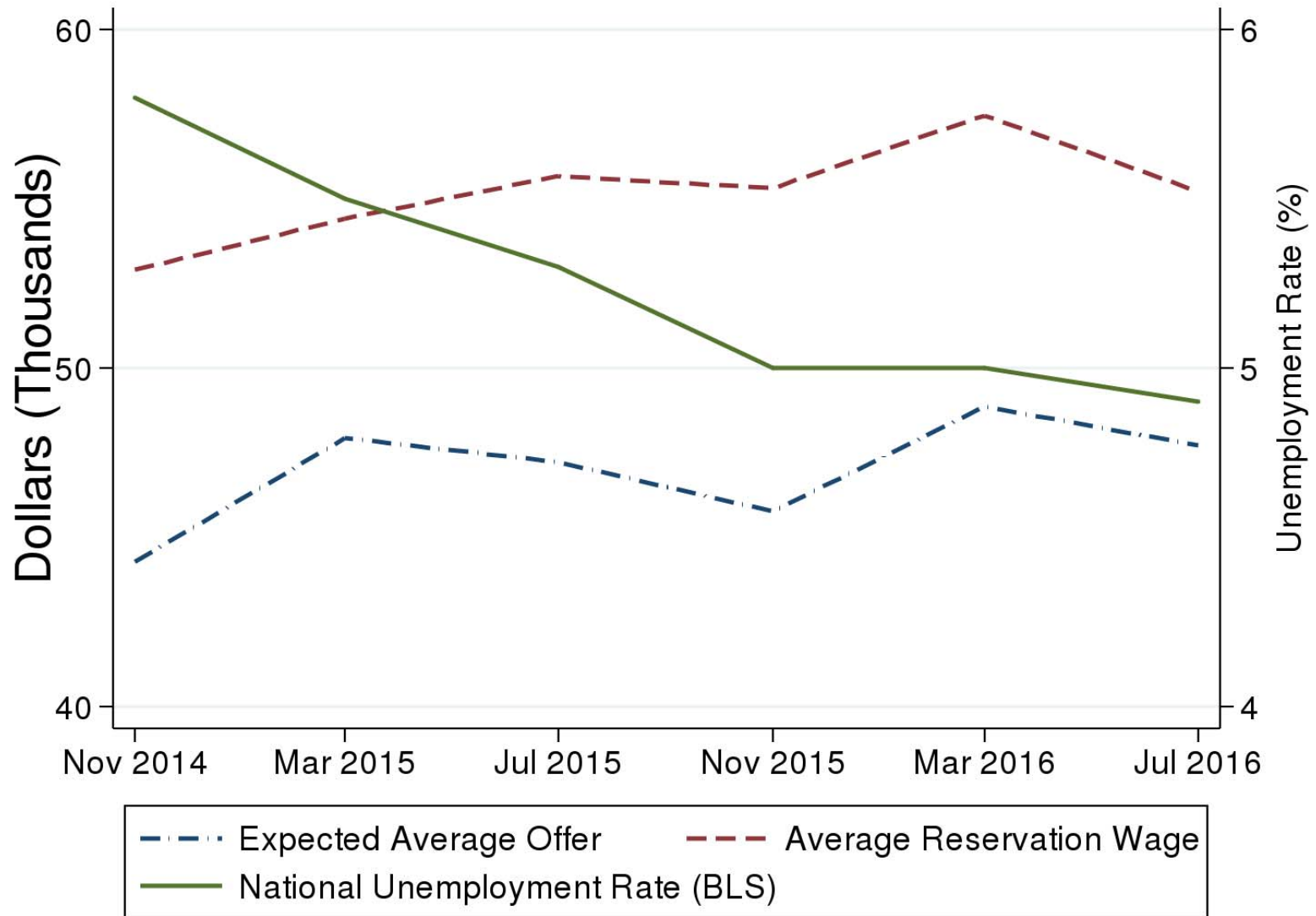
Suppose someone offered you a job today in a line of work that you would consider. What is the lowest wage or salary you would accept (BEFORE taxes and other deductions) for this job?

Average Reservation Wage, by Education



Suppose someone offered you a job today in a line of work that you would consider. What is the lowest wage or salary you would accept (BEFORE taxes and other deductions) for this job?

Expectations Negatively Related with Unemployment Rate



Labor Market Transitions- Expectations and Outcomes

EXPECTED Status 4 Months Ahead

Current Status	Employed	Employed	Unemp.	Out of Labor Force
	Same Employer	Different Employer		
Employed	85.2%	11.3%	2.3%	1.3%
Unemployed		53.2%	40.2%	6.6%
Out of Labor Force		13.5%	12.0%	74.5%

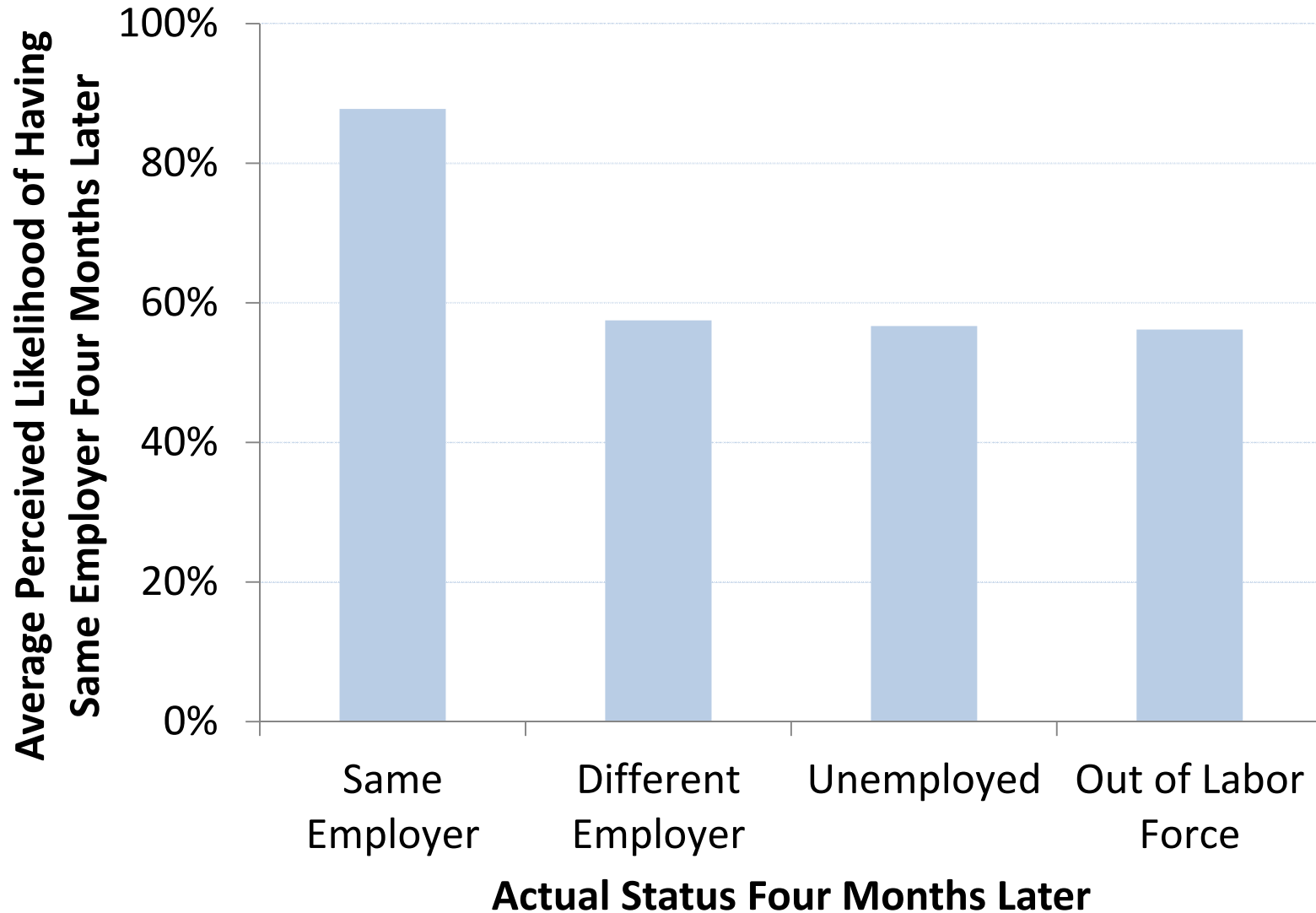
ACTUAL Status 4 Months Later

Current Status	Employed	Employed	Unemp.	Out of Labor Force
	Same Employer	Different Employer		
Employed	91.1%	4.9%	1.8%	2.3%
Unemployed		41.0%	41.0%	18.0%
Out of Labor Force		7.2%	1.4%	91.3%

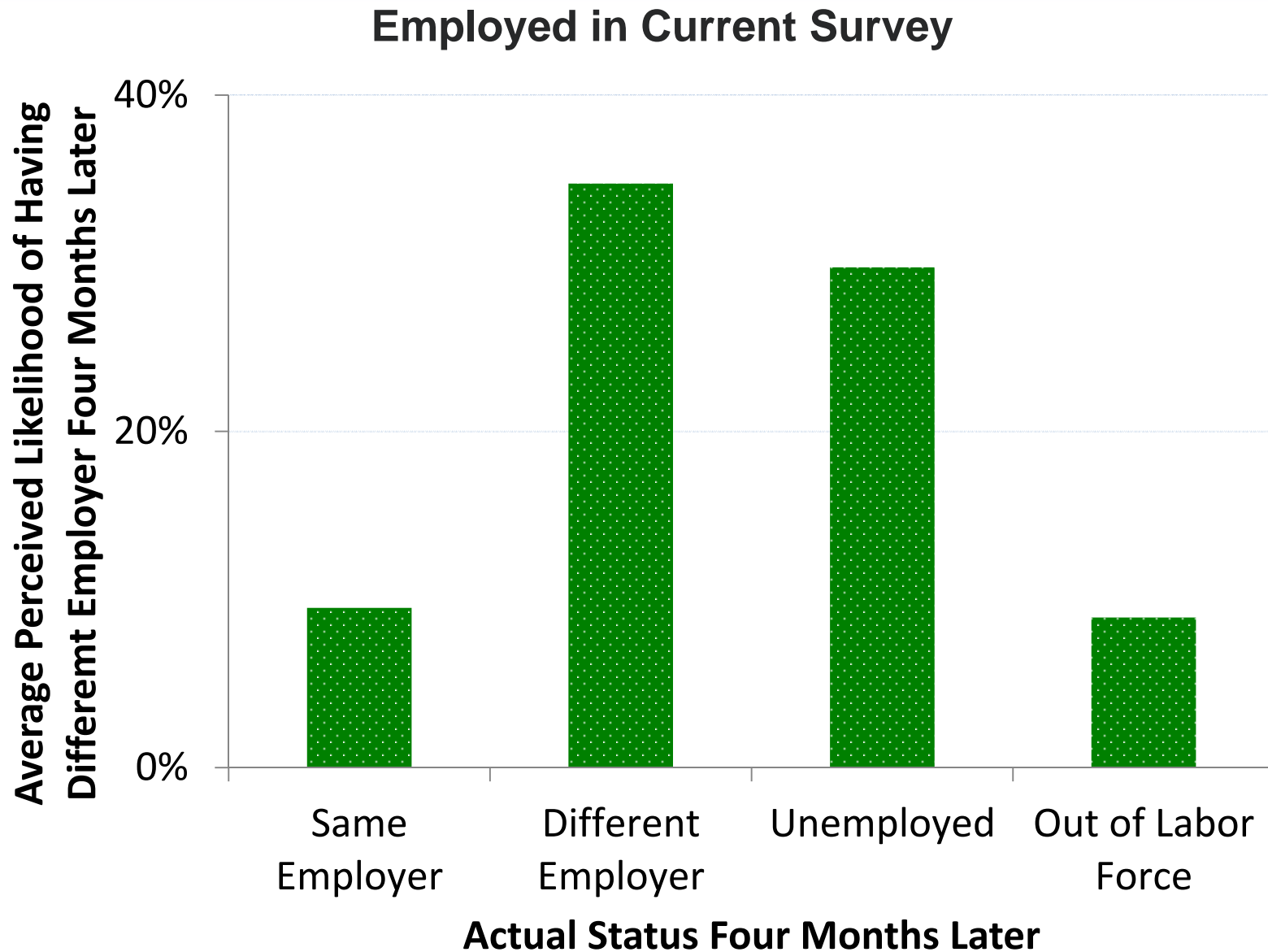


Do Expectations have Predictive Power?

Employed in Current Survey

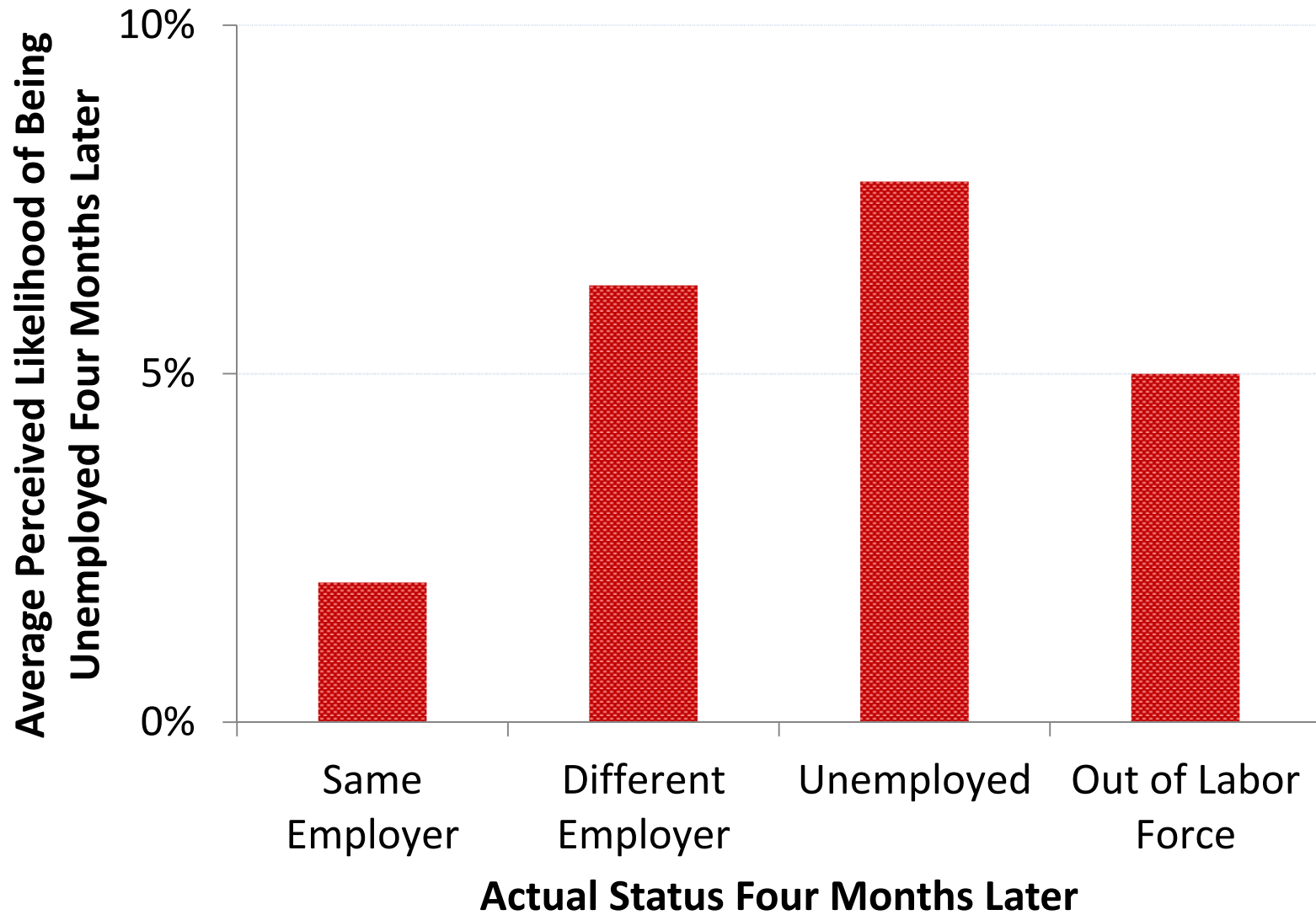


Do Expectations have Predictive Power? (2)



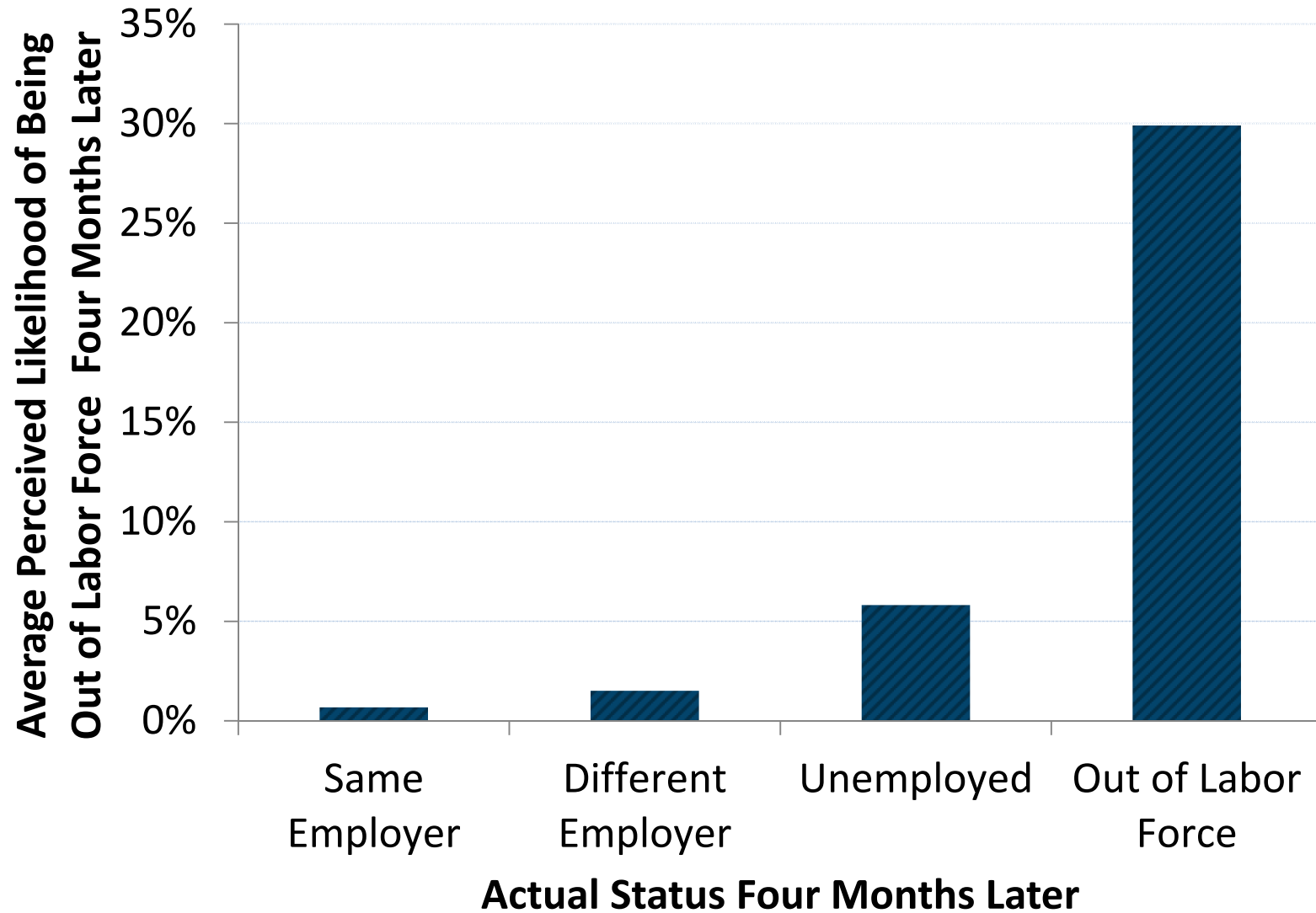
Do Expectations have Predictive Power? (3)

Employed in Current Survey

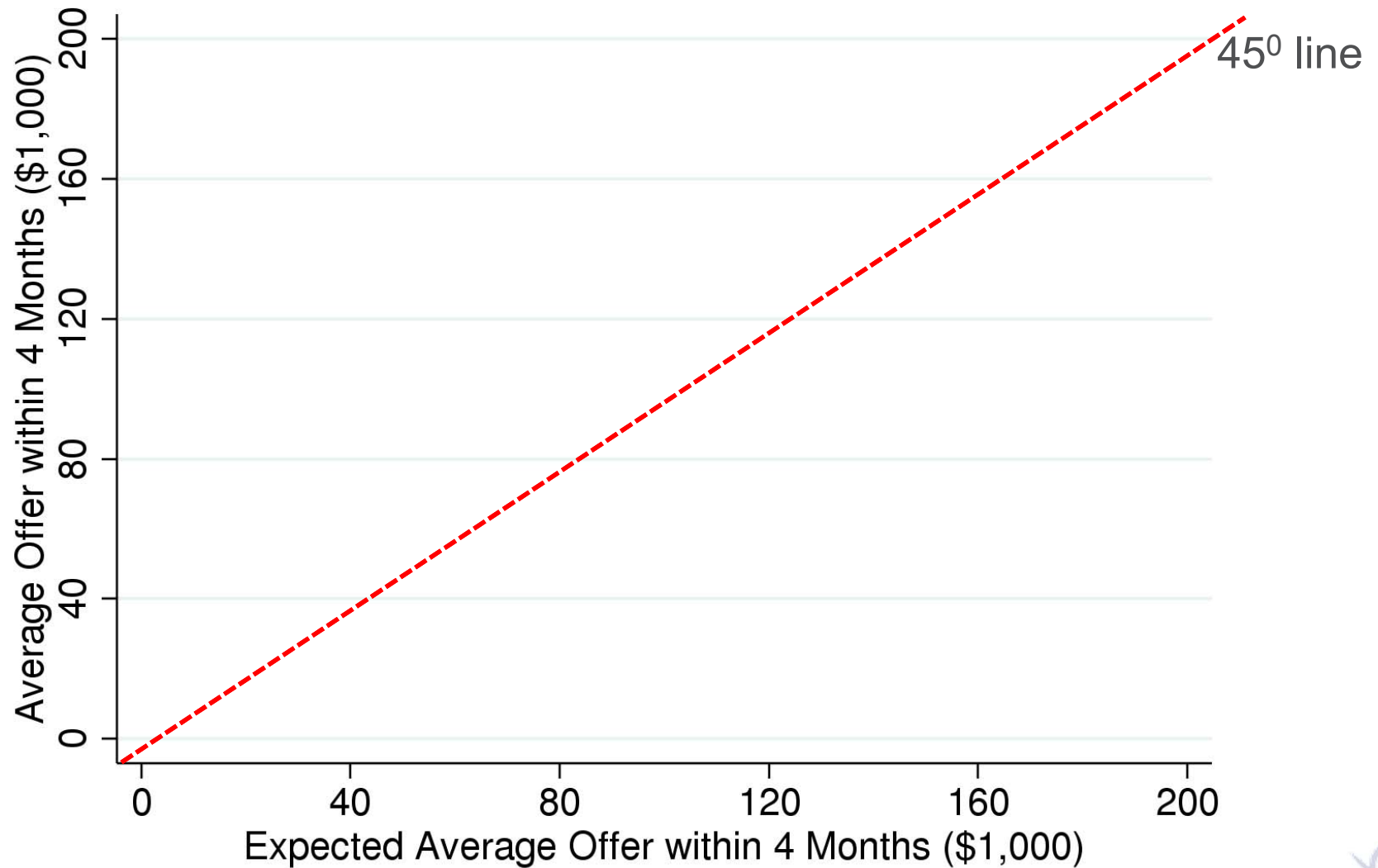


Do Expectations have Predictive Power? (4)

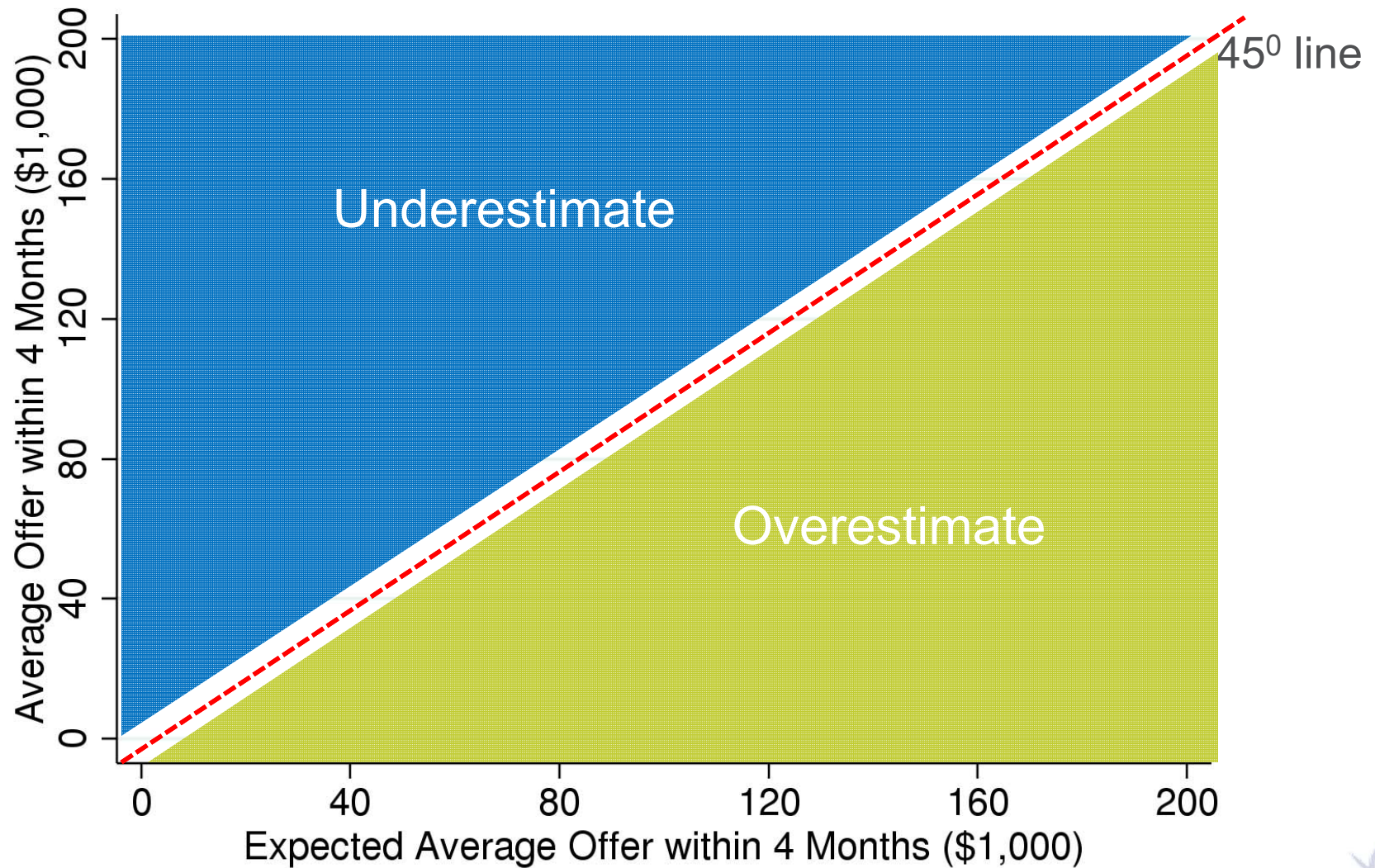
Employed in Current Survey



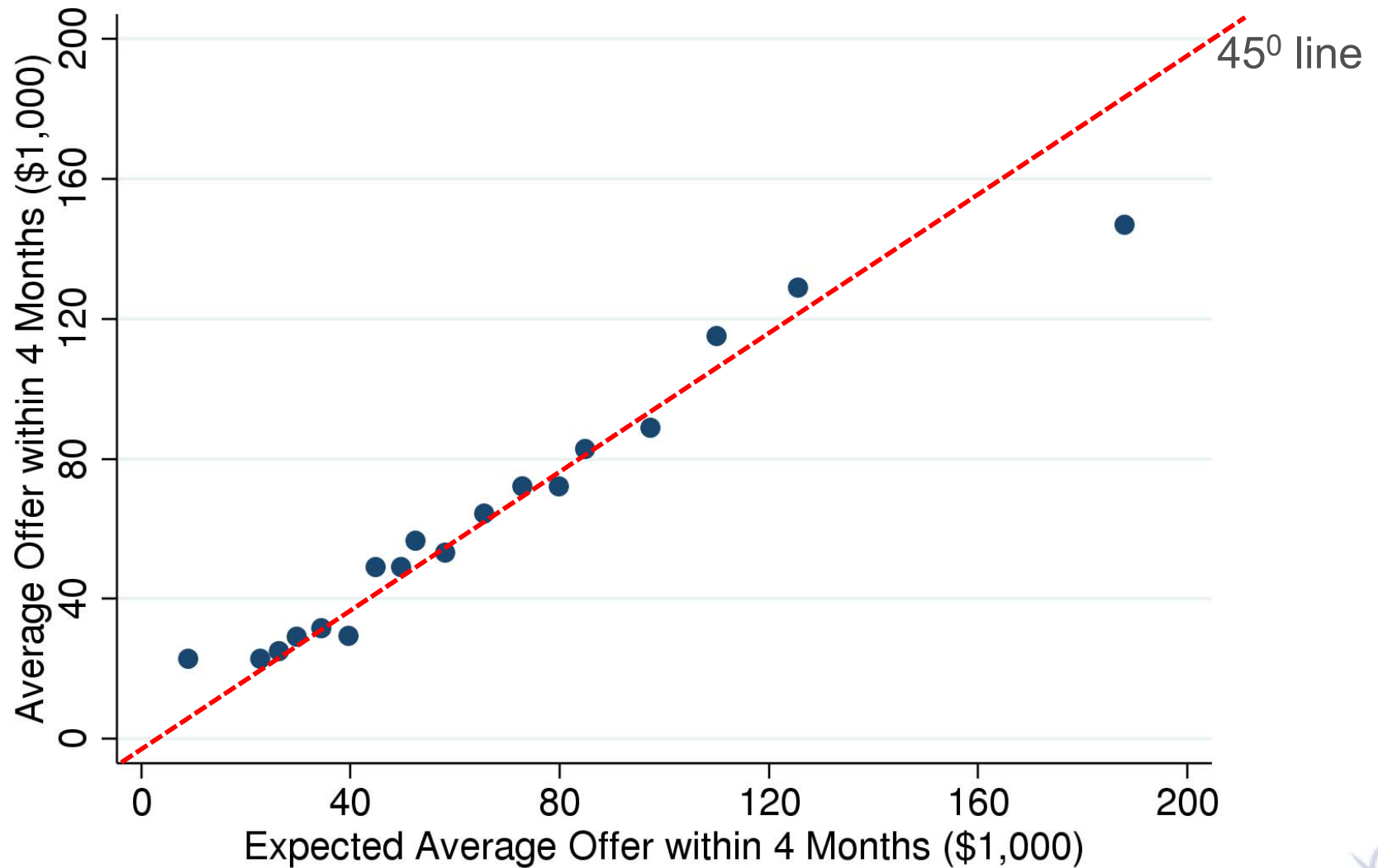
Do Offer Expectations have Predictive Power?



Do Offer Expectations have Predictive Power?



Do Offer Expectations have Predictive Power?



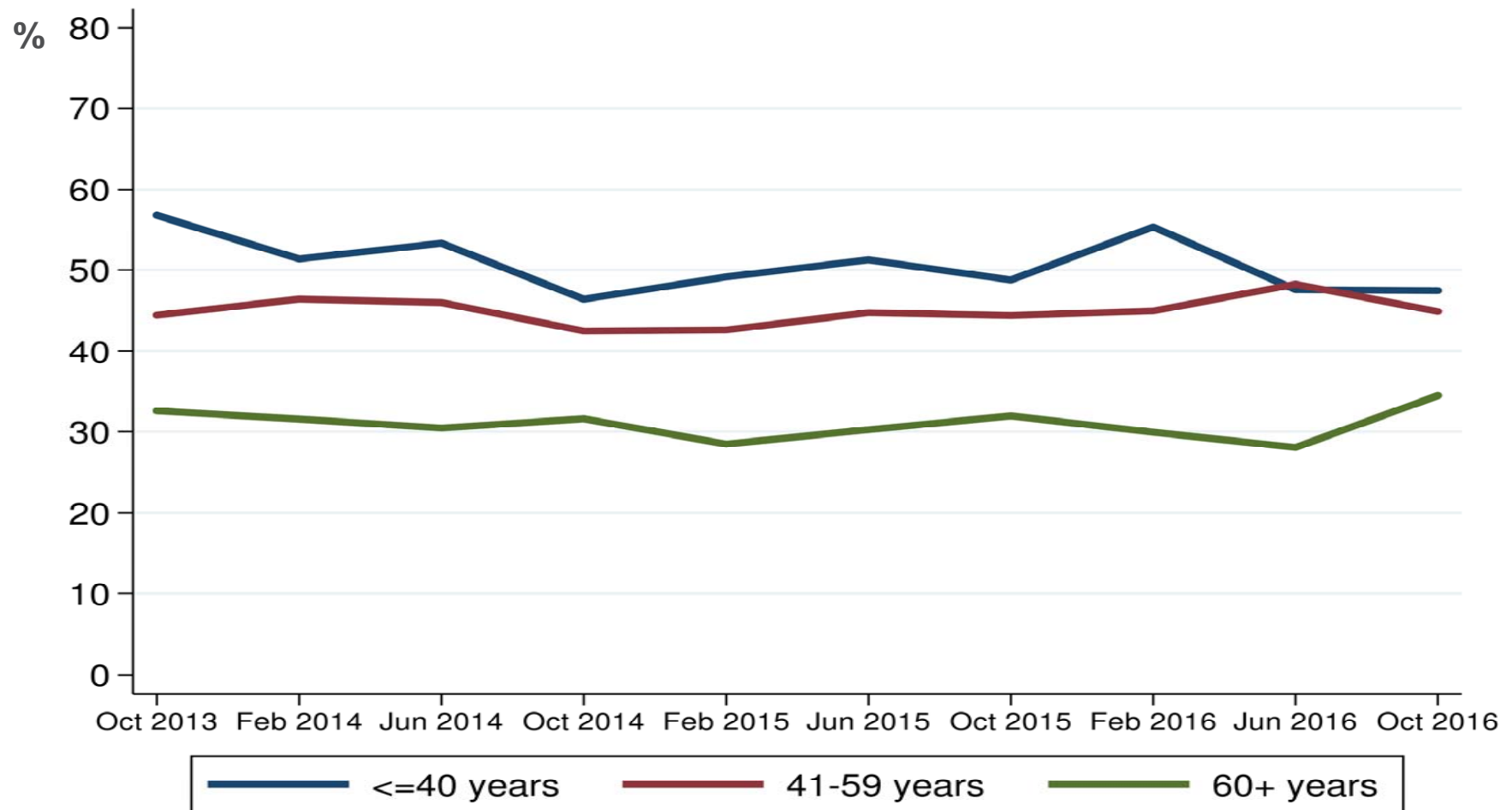
Overall Conclusion

- Rich data on individuals' expectations and behaviors/outcomes
 - Meaningful heterogeneity and time series variation
- Panel data and rich demographic data allow us to study updating of expectations at the individual level
 - Can help understand formation of expectations, which is crucial for effective policy
- Expectations are predictive of individuals' own outcomes in credit markets and labor markets
 - Implies that expectations have information content, and that it is useful to monitor them
 - As the time series gets longer, we plan to investigate whether expectations can be used as leading indicators of movements in the aggregate economy

Additional Materials

Credit Application Rates, by Age

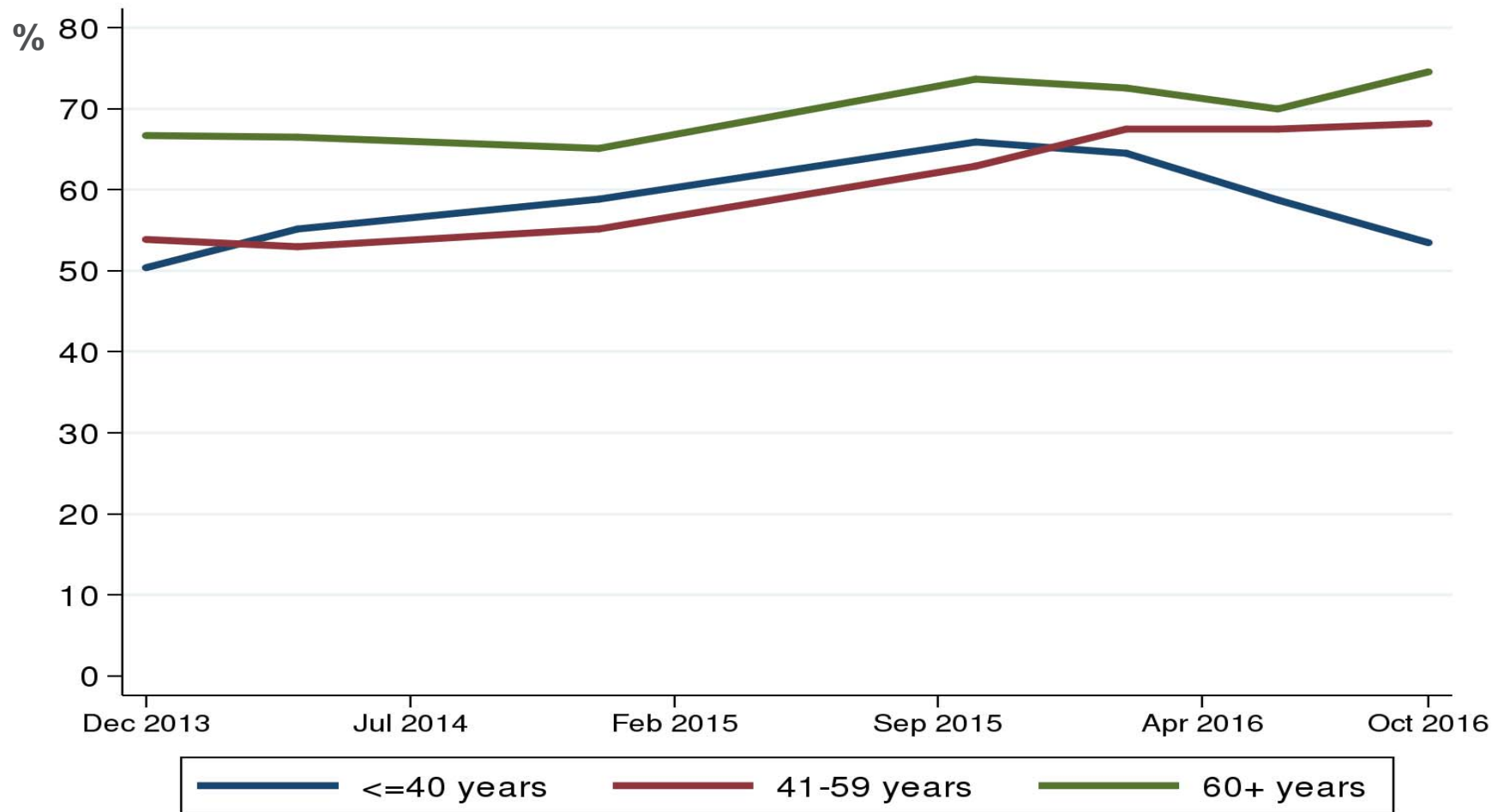
Application rate over the past 12 months (any type of credit)



Application rate: proportion of respondents who applied for any of 7 credit products over the past 12 months

Source: SCE Credit Access Survey

Percent chance able to come up with \$2,000 within the next month - by age



What do you think is the percent chance that you could come up with \$2,000 if an unexpected need arose within the next month?

Source: SCE Credit Access Survey

Ability to come up with \$2,000 within the next month, by demographics

	<i>Average probability can come up with \$2,000</i>	<i>Fraction with under 50% chance can come up with \$2,000</i>
<i>All</i>	65.9	32.2
<i>Age under 40</i>	53.5	46.2
<i>40 to 60</i>	68.1	29.8
<i>60+</i>	74.5	22.7
<i>Income under \$50,000</i>	47.7	53.6
<i>\$50,000-\$100,000</i>	77.3	19.8
<i>\$100,000+</i>	85.5	10.9

Source: October 2016 SCE Credit Access Survey

Sample questions: Expected LM Transitions

Expected Labor Market Transitions

Q. What do you think is the percent chance that four months from now you will be...

employed and working for the same employer

employed and working for a different employer

self-employed

Unemployed and looking for work

Unemployed and NOT looking for work

Job Offers

Q. Think about the job offers that you may receive within the coming four months. Roughly speaking, what do you think the average annual salary for these offers will be for the first year? \$___

Reservation Wages

Q. Suppose someone offered you a job today in a line of work that you would consider. What is the lowest wage or salary you would accept (BEFORE taxes and other deductions) for this job?

Geographic variation in the time Series

