

# What Do the Data Tell Us About Inflation Expectations?

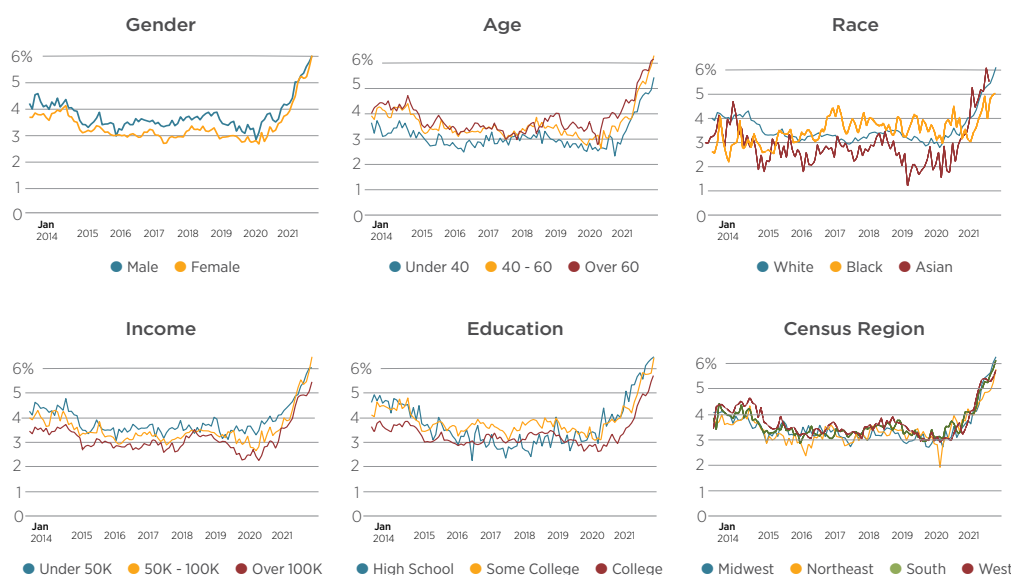
Based on BFI Working Paper 2022-41, [“What Do the Data Tell Us About Inflation Expectations?”](#), by Francesco D’Acunto, Boston College; Ulrike Malmendier, University of California, Berkeley; and Michael Weber, Chicago Booth

*Recent research reveals that household inflation expectations are biased upwards, dispersed across individuals, and volatile over time, contrary to prevalent economic theory.*

Central banks around the world actively try to manage inflation expectations, and they make assumptions about how households will react to interest rate changes in terms of, say, consumption, savings, debt, and investment decisions. The importance of those policymaking assumptions and their influence on monetary policy are reinforced during times like the present when households, after years of low and stable inflation, are suddenly confronted with a spike in prices amidst heightened future uncertainty.

This leads to an important question: How well do economists and central bankers understand households’ inflation expectations? In a chapter for a forthcoming book (Handbook of Subjective Expectations), the authors of this paper review recent economic literature to reveal that long-standing models which formed the basis for most monetary policymaking in recent decades miss the mark. Essentially, those models assume that households view an increase in nominal interest rates as a one-for-one transmission to real interest rates. In other words,

**Figure 1 • Households’ Inflation Expectations by Demographic Characteristics**



Note: This figure plots households’ average inflation expectations over time for several subsamples of socioeconomic characteristics indicated on top of each subplot. The authors use the distribution question in the New York Fed Survey of Consumer Expectations (SCE) to measure inflation expectations over the next 12 months. In this question, each household is asked to provide probability mass to pre-specified bins of possible inflation rates over the next twelve months that has to add up to 100. The bins range from +12% to -12%. To calculate the average expected inflation over the next 12 months, the authors calculate the weighted average of the distribution question using the center of each bin and +/-14% for the extreme bins. The sample period is from June 2013 to November 2021.

when nominal rates increase by 0.25 percentage points, households expect the same for real rates.

Recent work has challenged these long-held assumptions as models have improved to include heterogeneity among agents (or actors within models), to reveal that inflation expectations are upward biased, dispersed, and volatile. These newer models are informed by survey-based data and reveal that inflation expectations differ across:

**Gender** — women have higher expectations than men.

**Age** — younger individuals have lower inflation expectations.

**Race** — while sample sizes complicate findings, there is evidence that Blacks tend toward higher inflation expectations than Whites or Asian Americans.

**Income** — inflation expectations of respondents who earn less than \$50,000 per year are about 1 percentage point higher than for respondents who earn more than \$100,000.

**Education** — college-educated respondents' inflation expectations are about 3% before the Covid-19 pandemic, whereas respondents who never attended college expect inflation around 4% in most months. Lesser-educated respondents also display more volatile expectations.

**Place** — Respondents in the US West have higher average inflation expectations in most months, with variation owing to regional business-cycle dynamics.

Bottom line for policymakers: Personal exposure to price signals in daily life like during shopping trips and cognition mediate the role of abstract knowledge and information and are the best predictors of actual, decision-relevant inflation expectations. A wealth of new data in recent years fuel this insight and provide inputs for the development of new models that are consistent with these empirical advances.

#### READ THE WORKING PAPER

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### What Do the Data Tell Us About Inflation Expectations?

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