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The Puzzle of a Missing Wage-Price Spiral: Experimental Evidence on Inflation Expectations and Labor Supply*

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Abstract

We study how workers form inflation expectations and incorporate them into labor supply decisions using experimental evidence from the U.S. online labor market. Exploiting exogenous variation from randomized information provision, we find that higher price inflation expectations do not raise reservation wages. Instead, workers lower reservation wages for multi-period contracts, even after controlling for wage growth and unemployment expectations. These patterns are consistent with a labor search model where higher inflation expectations reduce the perceived value of future job offers, increase income risk, and induce a precautionary reduction in reservation wages. Overall, the findings suggest limited risk of wage-price spirals.

Keywords: inflation expectations, cross-learning, labor supply, wage-price spiral, randomized control trial

JEL Codes: E31, C83, D84, J22

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> *"Inflation has just about everyone's attention right now, which highlights a particular risk today: The longer the current bout of high inflation continues, the greater the chance that expectations of higher inflation will become entrenched. ... History shows that the employment costs of bringing down inflation are likely to increase with delay, as high inflation becomes more entrenched in wage and price setting."*
>
> Jerome Powell, at the *Jackson Hole Symposium* on August 26th, 2022.

1 Introduction

Understanding how agents form macroeconomic expectations and how they incorporate them into their economic decisions is key for policy and research. In particular, the relationship between price and wage inflation expectations and labor supply is central to the wage-price spiral theory. As the quote above illustrates, during the post-COVID inflation surge, policymakers around the world were concerned that elevated levels of price inflation would become entrenched in long-term inflation expectations. Persistently high inflation could encourage workers to demand higher wages to offset the decline in purchasing power, potentially triggering wage-price spirals. Puzzlingly, in hindsight, the wage-price spiral did not materialize in the U.S. or other advanced economies: wage growth remained modest as inflation neared the inflation target in mid-2024. Drawing on experimental evidence from an online labor market, this paper sheds light on this surprising outcome and provides insight into the microfoundations of wage-price spirals.

Whether elevated inflation leads to a wage-price spiral depends on answers to two questions: i) how workers form their macroeconomic expectations and outlook, and ii) how they incorporate these expectations into their labor market behavior. Although the interactions between wage and price inflation have received extensive attention in recent years, there has been little direct causal evidence on how expectations influence individuals' labor market decisions. Such analysis is challenging because it requires data on subjective expectations and labor supply preferences. Even if such information were available from observational data, variations in expectations is rarely exogenous, and individual decisions may reflect unobserved factors beyond researchers' measurement or control. Additionally, labor market frictions, such as long-term contracts or wage rigidity among incumbent workers, may mute workers' observable labor supply responses.

Building on advances in the literature on randomized information provision, we overcome these challenges by running an experiment in an online labor market to test whether workers revise their wage aspirations when their inflation expectations change. Our experiment design allows us to observe simultaneous revisions of multiple macroeconomic expectations, including price inflation expectations, in response to a single exogenously provided piece of information. We then document how workers adjust their reservation wages following these expectation revisions. To elicit labor supply preferences, we asked workers to state the terms under which they would accept similar future work for both single-period and multi-period tasks, allowing us to capture reservation wages under different levels of employment security. This allows us to provide the first causal evidence of the effect of inflation expectations on labor supply, which is critical for understanding the mechanisms underlying wage-price spirals.

We implemented the experiment on Amazon Mechanical Turk (MTurk, hereafter), an online marketplace for short on-demand tasks, in April-July 2022.[1] We offered MTurk workers the opportunity to complete a series of short forecasting and text transcription tasks related to price inflation, wage inflation, and unemployment expectations, similar to a typical MTurk task. We also elicited how much workers would need to be compensated to complete follow-up tasks with us. To incentivize MTurk workers to truthfully reveal their labor supply preferences, we credibly offered them future employment based on the conditions they specified.

Our approach combines features of laboratory experiments (randomized information treatments, controlled elicitation) with field experiments: we implement the intervention in an actual labor market where workers make real employment decisions with stakes that affect their earnings. Using *randomized* information provision, we induced exogenous shifts in macroeconomic expectations, allowing us to identify causal effects on actual labor supply behavior. This setting has several desirable properties, the most important of which is higher employment flexibility and the limited role of frictions relative to traditional offline labor markets. As a result, pay per task on MTurk plays an allocative role and serves as a key input into labor supply decisions. This allocative pay is the main outcome in our analysis that we refer to as the reservation wage.

The experiment results show that in response to information treatments participants meaningfully revised their macroeconomic expectations. The resulting exogenous variation enables us to examine the causal relationship between inflation expectations and labor supply, providing a direct test of the predictions of wage-price spiral theory. Importantly, our design also uncovers systematic cross-learning across expectations: even when information is provided only about one variable, participants update beliefs about related macroeconomic variables. Since these indirectly updated expectations may themselves affect reservation wages, it is crucial to control for them in the analysis to correctly estimate the causal effect of inflation expectations.

We find that MTurk workers adjust their reservation wages in response to exogenous shifts in macroeconomic expectations, but not in ways predicted by the wage-price spiral theory. When workers revise price inflation expectations upwards, they do *not* raise their reservation wages: the reservation wage for a single-period task remains largely unchanged, while for multi-period tasks, it *declines* among numerate respondents. This pattern holds after accounting for cross-learning in other expectations such as expected aggregate nominal wage growth. These findings are difficult to reconcile with a benchmark neoclassical labor supply framework (e.g., Lucas and Rapping, 1969), where higher expected price inflation lowers expected real interest rates, reduces the opportunity cost of leisure, and leads households to supply less labor today. Instead, the observed responses are more consistent with search-theoretic models (e.g., Rogerson, Shimer, and Wright, 2005): if higher price inflation signals weaker future labor market conditions, workers may lower

[1] During this period, the U.S. experienced exceptionally high inflation rates. In June 2022, CPI inflation reached its highest level since 1982 at 8.9%. According to the Federal Reserve Bank of New York's Survey of Consumer Expectations, inflation expectations were also running high at 6.8% in June 2022.

reservation wages and shorten job search. The difference in responses across contract durations is also consistent with income-targeting (Camerer et al., 1997; Crawford and Meng, 2011; Farber, 2008), as workers may accept marginally lower pay today to achieve desired overall earnings over multiple periods. Overall, the results point to a mechanism where workers use inflation expectations to infer future job prospects and earning potential, and adjust their reservation wages accordingly.

We rationalize these empirical patterns with a labor supply model in which risk-averse workers embed expectations about price and wage inflation into their decisions to accept or reject offers, thereby determining their reservation wages. Building on the McCall (1970) framework, workers face uncertainty over future offers and trade off the immediate gain from accepting now against the option value of waiting. Inflation expectations shape this trade-off through their effects on the perceived mean and dispersion of real wages. First, higher expected wage inflation shifts the perceived real offer distribution to the right, raising reservation wages. By contrast, stagflationary beliefs and/or incomplete pass-through of price inflation into nominal wages shift the perceived real offer distribution to the left, lowering reservation wages. Second, higher inflation expectations may increase the perceived dispersion of future real wage offers. For risk-averse workers, greater uncertainty reduces the option value of waiting, particularly for those with low reservation wages, inducing them to lower reservation wages to insure against unfavorable realizations in the future. By linking inflation expectations to labor supply through these mechanisms, the model explains the divergent responses to price versus wage inflation observed in our experiment, as well as the stronger effects for longer-duration contracts.

These results shed light on the microfoundations of the wage-price spiral in the U.S. and suggest that the risk of such a spiral was limited in the summer of 2022. While our experiments were conducted on Amazon MTurk, an online labor market, several considerations support the generalizability of our results and their relevance for policy. First, over 80% of our sample hold day jobs, suggesting that their reasoning about compensation in the online labor market at least partially reflects that in offline contexts. Second, self-reported responses regarding offline labor market behavior align with our experimental findings: higher price inflation expectations increase both the probability of switching employers and the required pay raise to do so, while higher wage inflation expectations have the opposite effects. This pattern suggests that workers consider outside offers primarily when they provide a sufficiently large precautionary premium, consistent with a heightened perception of labor market risk under elevated inflation expectations. Third, online platforms capture the most flexible margins.[2] A growing body of work uses gig-economy platforms as natural laboratories to examine labor supply decisions at flexible margins, generating insights that are informative for broader labor market behavior (Caldwell and Oehlsen, 2023; Cook et al., 2021; Koustas, 2018). The fact that workers exhibit restraint even in these low-friction settings where demanding higher pay is costless suggests that this behavioral pattern likely ex-

[2]Economic research commonly focuses on the most flexible margins of adjustment (e.g., wages of new hires less affected by nominal rigidity, or search intensity of job seekers). Reservation wages in spot labor markets serve as summary statistics for labor supply decisions at these flexible margins.

tends to traditional employment relationships where adjustment is more costly and constrained (Guerreiro et al., 2024). The consistency across online and offline responses further supports the interpretation that workers broadly view inflation as a signal of economic deterioration and respond with precautionary labor supply behavior, thereby helping mitigate the wage-price spiral risks.

Contribution to Literature. Our paper contributes to several strands of literature. First, we contribute to the literature on how macroeconomic expectations shape individual decisions, specifically on labor supply. Compared with household consumption-saving decisions (e.g., Burke and Ozdagli, 2021; Coibion et al., 2024, 2023; Coibion, Gorodnichenko, and Weber, 2022; D'Acunto, Hoang, and Weber, 2015; Vellekoop and Wiederholt, 2019) and housing investment decisions (e.g., Armona, Fuster, and Zafar, 2019; Bottan and Perez-Truglia, 2025), labor market behavior has received relatively less attention. Several papers document that higher price inflation expectations increase the likelihood of job transitions, possibly as an attempt to alleviate nominal wage rigidities (Afrouzi et al., 2026; Bostanci, Koru, and Villalvazo, 2022; Hajdini et al., 2024; Pilossoph and Ryngaert, 2024). However, prior work primarily relies on observational evidence, self-reported responses to hypothetical questions, or structural models calibrated to such data. For example, Hajdini et al. (2024) study planned changes in labor market behavior, Pilossoph and Ryngaert (2024) use observational evidence and hypothetical job-search scenarios in low- versus high-inflation settings to calibrate a structural model, and Afrouzi et al. (2026) develop a theoretical framework to study how workers adjust to inflation through job mobility.

To our knowledge, our paper is the first study to empirically examine the direct causal effect of inflation expectations on *actual* reservation wages. We show that, after controlling for aggregate wage inflation expectations, higher price inflation expectations *reduce* reservation wages. This effect is not driven by the disutility of proactively asking for a raise (Guerreiro et al., 2024), because reporting reservation wages in our experiment did not require engaging in any conflict. The increase in labor supply is likely driven by precautionary behavior, such as taking on an additional job or increasing the work intensity (e.g., Stantcheva, 2024). Importantly, such precautionary response does not necessarily contradict the increased job search intensity (Afrouzi et al., 2026; Pilossoph and Ryngaert, 2024) as expressing willingness to work with us in the future is an option rather than an obligation, which can be complemented by more intensive search for better-paying opportunities. In this sense, the reduction in reservation wages acts as a premium for insurance, offering income stability if more attractive opportunities do not materialize.

Second, our paper expands the literature on the formation of macroeconomic expectations and the relationships between them (see, for example, Armantier et al., 2016; Binder, 2020; Cavallo, Cruces, and Perez-Truglia, 2017; Coibion et al., 2021; Coibion, Gorodnichenko, and Weber, 2022; Weber et al., 2025). Exploiting our survey design, which captures revisions in multiple expectations across all treatment and control arms, we document cross-learning and pass-through between price inflation, wage inflation, and the unemployment expectations when provided with information about only one variable. Consistent with recent work (Buchheim, Link, and Möhrle, 2024; Hajdini et al., 2024; Jain, Kostyshyna, and Zhang, 2024), we find low pass-through from price inflation to aggregate wage growth expectations (0.2-0.3), indicating that workers generally do not expect wages to keep up with price inflation. We also estimate a significant pass-through from wage to price inflation expectations, consistent with the wage-price spiral mechanism. However, the pass-through between price inflation and unemployment expectations is weak, with suggestive evidence of asymmetry. We use information about indirect updating of expectations to address the concerns raised by Dafoe, Zhang, and Caughey (2018) and Haaland, Roth, and Wohlfart (2023) that omitting cross-learning can bias IV designs for randomized information provision experiments. Our result that higher price inflation expectations do not significantly increase reservation wages is robust to controlling for updating in wage inflation and unemployment expectations, as well as estimating the causal effect of updating all expectations jointly.

Third, our paper contributes to the literature on wage-price spirals and the role of workers' expectations in generating them. A large theoretical literature explains how such spirals can emerge and explores their policy implications (see, for example, Blanchard, 1986; Lorenzoni and Werning, 2023; Lucas and Rapping, 1969), but empirical work has relied largely on cross-country observational data, which often suffer from inherent endogeneity (see, for example, Boissay et al., 2022; Kandil, 2003). Micro-level evidence on the behavioral foundations of wage-price spirals, particularly whether workers demand higher wages in anticipation of rising prices, remains limited. Existing studies focus mainly on how realized inflation affects collective bargaining outcomes (Card, 1990; Christofides and Oswald, 1992; Cukierman and Lippi, 1999). Recent work using a general equilibrium model (Bloesch, Lee, and Weber, 2025) argues that in environments without collective bargaining or cost-of-living adjustments, and with prevalent job posting, wage-price spiral risks are muted due to the limited response of labor demand to inflation shocks. Our paper provides direct experimental evidence on the microfoundations of wage-price spiral theory from the labor supply side, estimating how expected inflation affects individual workers' reservation wages during a high inflation period.

Finally, our paper contributes to the literature on the subjective macroeconomic models that guide the behavior of non-expert economic agents (Andre et al., 2026, 2022; Roth and Wohlfart, 2020). Recent literature provides insights into subjective models by exposing households to well-defined macroeconomic shocks and studying their perceived effects on inflation and unemployment (Andre et al., 2022; Binetti, Nuzzi, and Stantcheva, 2024). Our results complement this literature by showing how a single piece of information about the macroeconomic environment–similar to what they would have learned from the news–shifts both their overall economic outlook and labor supply decisions. Our findings indicate that households' subjective models differ from standard economic models. Consistent with prior work, we find evidence of supply-side or stagflationary view of inflation (Kamdar, 2019; McClure et al., 2025). Yet the perceived link between inflation and unemployment is asymmetric: while higher expected unemployment raises inflation expectations, higher expected inflation has only small, statistically insignificant effects on unemployment expectations. Moreover, respondents lower their reservation wages in response to higher price inflation expectations, as if insuring against deteriorating future labor market conditions, reinforcing the perception of inflation as a negative economic signal. Such a labor supply response would weaken, rather than amplify, wage-price spiral risks.

The remainder of the paper is organized as follows. Section 2 describes the survey and experimental design. Section 3 presents the treatment effects of information provision on subjective expectations and discusses cross-learning between them. Section 4 then examines how changes in expectations affect labor supply preferences and discusses implications for the wage-price spiral theory. Finally, Section 5 concludes.

2 Survey and Experimental Design

This section describes the survey and experimental design we use to elicit the effect of inflation expectations on labor supply and provides descriptive statistics of participants. Our study design follows recommendations in Haaland, Roth, and Wohlfart (2023) and Stantcheva (2023).

2.1 Survey Design

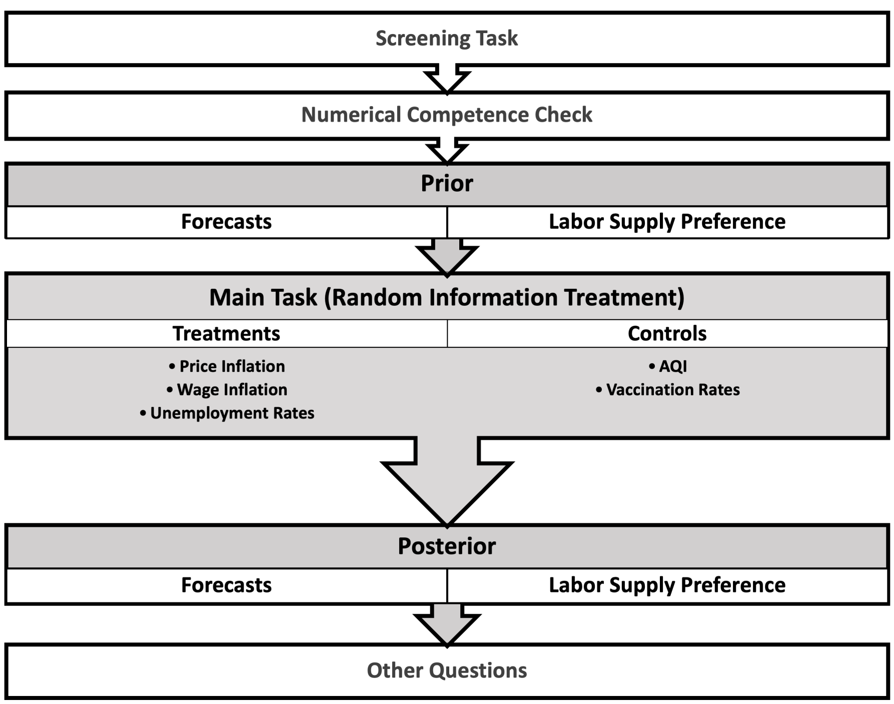
We implemented our survey via Amazon Mechanical Turk (MTurk), a crowdsourcing platform where remotely located workers complete on-demand tasks, called HITs (Human Intelligence Tasks), for monetary compensation.[3] The HITs analyzed in this paper were posted in April and May 2022. Workers self-selected into participation based on a brief description indicating a $1.50 reward and an expected completion time of 10-15 minutes. To encourage careful responses and mitigate experimenter demand effects, we informed participants that the purpose of the HIT was to train a machine learning forecasting algorithm. This description signaled the importance of the forecasting questions while concealing our actual objective of studying how revisions in subjective expectations affect labor supply decisions, as full disclosure could have biased responses. Moreover, because MTurk is an actual labor market, framing the project as ongoing and involving follow-up HITs encouraged respondents to report realistic reservation wages and desired contract durations, allowing us to elicit actual rather than hypothetical labor supply preferences. To ensure

[3]MTurk offers several advantages for our experiment. Although it is technically an online task market rather than a labor market in the legal sense, it closely resembles a spot labor market: employers (requesters) post short jobs (called "Human Intelligence Tasks," or HITs), and eligible workers choose whether to accept them based on task description, expected duration, and posted reward. Tasks are typically completed in near real time, both because requesters can limit the maximum time allowed for completion and because most tasks receive sufficient responses within a few hours. This flexibility and the allocative nature of pay make MTurk a particularly suitable environment for studying online labor supply. Despite its online nature, MTurk is not perfectly competitive and features non-trivial frictions. Requesters can screen workers by experience and approval rates, but workers have limited information about requesters due to the absence of a comprehensive reputation system on the employer side. The market is also highly concentrated, with a large share of tasks posted by a relatively small number of employers, and workers often specialize in particular task types, limiting their effective choice sets. Consequently, the elasticity of labor supply to an individual requester is modest. These features mirror frictions in offline labor markets, allowing for more meaningful comparison between online and offline labor supply behavior. See Dube et al. (2020) for an overview of MTurk's market structure and labor-supply elasticities. Amazon typically issues Form 1099-NEC to MTurk workers earning over $600 per year in service income, qualifying as online platform work. According to Garin et al. (2023), at least 5 million workers participated in platform gig work in 2021 based on tax data.

data quality, we restricted participants to U.S. residents aged 18 or older who had completed at least 1,000 HITS with an approval rate of at least 75%.[4] No additional demographic criteria were applied for sample selection. We collected 5,487 responses from 4,612 unique respondents.[5]

Our survey consists of six blocks. Figure 1 summarizes our survey flow. The survey begins with a screening task and a numerical competence check. These are followed by the main part of the survey, which allows us to compare the initial forecasts and labor supply preferences with their revised versions. The revision of expectations and labor supply preferences is prompted by the randomized information provision in the "Main task." In the "Main Task," a key element of our experimental design, we provide random sub-groups of respondents with different information about price and wage inflation rates and unemployment, which allows us to generate exogenous variation in expectations and thereby identify the causal effect of expectations revision on labor supply. At the end of the survey, respondents are asked to provide some basic demographic information as well as additional information about their employment offline and online. The specific questions asked are available in Online Appendix.[6]

Figure 1: Survey flow



[4]Requesters who post HITs approve MTurkers' HIT submissions based on their answers. If their answers meet certain criteria set by each requester, they approve HITs. Once their HITs are approved, MTurkers receive posted rewards. Otherwise, they will not receive any rewards.

[5]Attrition from attempt to completion is not systematically correlated with treatment assignment (see Appendix Tables A.1 and A.2). The analysis sample excludes 873 duplicate responses that occurred because some respondents accepted multiple HITs posted simultaneously, circumventing our ID-blocking algorithm for repeat completions. For respondents who completed more than one HIT, we retained only their first responses. Because the HITs were identical, the treatment arm a respondent entered first is plausibly random, so keeping the initial response does not bias our results.

[6]The Online Appendix is available HERE.

Randomization was administered at the HIT allocation stage using a blocked design by posting window (defined by day and time). Specifically, we repeatedly posted batches of HITs during fixed hours on multiple days that were identical in all parts except for the "Main Task" and the order of questions about expectations in the prior and posterior blocks. Workers could self-select into HITs, but conditional on accepting a HIT in a given window, their information treatment was randomly assigned.

Screening Task. Our survey began with a screening task. It followed a similar format to the main task used to implement the information treatment. The screening task required participants to accurately transcribe information from a screenshot. Participants who answered the screening task incorrectly were exited from the survey. Those who answered correctly were prompted to participate in the rest of the survey. We included the screening task to ensure that only attentive and diligent respondents participated in the survey. Most attrition occurred early due to inaccurate responses to the screening task or reluctance to complete numerical competence checks. Consequently, attrition is not systemically correlated with the information treatments (see Appendix A.1).

Numerical Competence Check. Upon successful completion of the screening task, participants were prompted to solve a few mathematical problems to evaluate their numerical competence. These questions assessed their ability to convert pay per 10 minutes to hourly pay and to compute percentage changes from absolute changes. Although respondents could continue the survey even if they answered these questions incorrectly, we included them to assess how many participants were comfortable with the basic numerical reasoning required to interpret the information treatments and provide informed forecasts. In our sample, approximately 87% of participants answered at least two questions correctly, and about 75% answered all three questions correctly.

Prior. This block elicited participants' forecasts and labor supply preferences. Before providing any information about macroeconomic variables, we asked respondents for subjective forecasts for the following variables: price inflation rates, hourly earnings inflation rates, unemployment rates, air quality index in Seattle, and Covid-19 vaccination rates. Each of these variables was the focus of one of our randomized information treatments. We also elicited the terms under which respondents would accept follow-up HITs, i.e., reservation rewards and preferred duration of employment. First, we asked for the minimum reward they would accept for a single 10-minute HIT next month:

> "*What is the smallest reward for a 10-min HIT you would accept next month?*" [single-period]

Next, we elicited their reservation rewards for multi-period employment, involving two or three 10-minute HITs in the following months (with duration randomly assigned):

> "*Suppose after completing a HIT on MTurk you are offered to participate in a follow-up task that asks you to do a 10-minute HIT three times – in May, June, and July 2022. What is the smallest reward for 30 minutes of your work that you would accept? (in USD)*" [multi-period]

Finally, we asked about their preferred employment duration:

> "*Suppose you could choose for how many months to work on a monthly HIT paying (*a respondent's own answer for the reservation wage question*) USD for 10 minutes of work. For how many months would you prefer to work?"*

Main Task. At the HIT allocation stage, respondents were randomly assigned to one of five groups: three treatment groups and two control groups. Each group was provided with a different information treatment in the form of a text transcription task in which they recorded information from a screenshot into a table. The treatment groups received information from official sources on price inflation, hourly earnings inflation, or unemployment rate, while the control groups received information unrelated to the macroeconomic conditions (air quality index in Seattle or Covid-19 vaccination rates). This design generates exogenous variation in macroeconomic expectations for the treatment groups relative to the controls.[7] For instance, participants assigned to the price inflation group transcribed the one-month and 12-month percentage changes in Consumer Price Index (CPI) from a BLS report, and those in the wage inflation group transcribed average hourly earnings from a BLS news release. To incentivize attention to the information treatment, participants were informed that mistakes in information transcription would result in no payment for the entire HIT. According to attention check questions, about 75% of the participants in the price and wage inflation groups correctly recalled the information they transcribed.

Posterior. After the information treatment, we again elicited respondents' subjective expectations about the economy (price and hourly earnings inflation rates and unemployment) as well as other variables in the control group (air quality in Seattle and Covid-19 vaccination rates). The questions used similar but not identical wording to the "Prior" block to avoid repetition. We then asked about their reservation wages and desired duration of employment again, using questions similar to those in the "Prior" block:

> "*Suppose in the future we offered you to perform a* similar *task you did today taking about 10 minutes of your time once a month. I.e. you would record the information from the same website and provide your prediction based on it. How many months would you be interested in working?"*
>
> "*In the previous question, you answered that you are willing to work on a similar 10-min task for (*a respondent's own answer to the previous question*) months, which corresponds to (*10×a respondent's own answer to the previous question*) min of your time. What is the **lowest** total reward that you would accept to work? (in USD)"* [multi-period]
>
> "*What is the smallest reward for a 10-min HIT you would accept for a* similar *task you did today in the next month?"* [single-period]

[7] Examples of screenshots are available in Online Appendix OF.6.

Other Questions. In this block, we collected respondents' characteristics such as gender, age, education level, employment status, household income, marital status, and number of children, and asked several hypothetical labor supply questions about their day jobs in traditional, *offline* labor markets. These responses complement our main analysis of labor supply preferences in the online labor market.

2.2 Descriptive Statistics

Table 1 reports descriptive statistics for 4,612 unique respondents. The sample is broadly representative of the U.S. population in terms of gender, race, and age: the average respondent is about 40 years old, roughly half are female, and 80% are white. As is typical for MTurk samples, respondents are more educated than the general population, with about 75% holding a four-year college degree or higher.[8] Most are employed (82% work full-time or part-time), indicating that MTurk is not their primary source of income, though they still spend an average of roughly 20 hours per week on the platform. Median household income per year falls in the \$50,000 - 59,999 range, and households report weekly spending of \$702 on food and \$289 on gas.

Table 1: Descriptive statistics (late April-May, 2022)

	Mean	Percentiles			Std. Dev.
		p25	p50	p75	
age	40.32	31.00	38.00	48.00	12.19
female	0.49	0.00	0.00	1.00	0.50
white	0.80	0.00	1.00	1.00	0.40
with college degree	0.74	0.00	1.00	1.00	0.44
employed	0.82	0.00	1.00	1.00	0.38
full-time employed	0.68	0.00	1.00	1.00	0.47
cohabiting	0.70	0.00	1.00	1.00	0.46
MTurk labor hours	20.02	7.00	15.00	30.00	15.59
number of children	0.97	0.00	1.00	2.00	1.10
monthly spending on food	\$702.51	\$150.00	\$300.00	\$600.00	\$2588.78
monthly spending on gas	\$288.71	\$40.00	\$100.00	\$200.00	\$1755.90
$\mathbb{E}_t^{\texttt{prior}}[\pi_{t+12}]$	6.12	1.00	5.00	10.00	8.12
$\mathbb{E}_t^{\texttt{prior}}[\pi^w_{t+12}]$	7.22	1.00	4.00	10.00	11.31
$\mathbb{E}_t^{\texttt{prior}}[u_{t+12}]$	7.24	4.46	6.45	9.20	3.80
$\Delta^{\texttt{post-prior}}\mathbb{E}_t[\pi_{t+12}]$	0.64	-1.65	0.00	3.00	7.59
$\Delta^{\texttt{post-prior}}\mathbb{E}_t[\pi^w_{t+12}]$	-0.92	-3.00	0.00	2.00	11.61
$\Delta^{\texttt{post-prior}}\mathbb{E}_t[u_{t+12}]$	0.89	-1.18	0.00	1.96	5.01
$\mathbb{E}_t^{\texttt{prior}}[\texttt{duration}_{t+1}]$	3.76	2.00	5.00	5.00	1.53
$\mathbb{E}_t^{\texttt{prior}}[\texttt{reservation wages}_{t+1}\vert\text{single-period}]$	1.02	0.80	1.00	1.20	0.40
$\mathbb{E}_t^{\texttt{prior}}[\texttt{reservation wages}_{t+1}\vert\text{multiple-period}]$	1.02	0.58	1.00	1.33	0.59
Observations	4,612				

[8]Our survey has numerical competency check questions. While we did not restrict participation based on the correctness of answers to these questions, it is likely that individuals who are more comfortable with numbers were more inclined to complete our survey.

The average expected price inflation rate is 6.1%, with a median of 5%. These figures align closely with contemporaneous national surveys: the Michigan Survey reported median one-year-ahead expectations of 5.4% in April and 5.3% in May 2022, and the New York Fed reported medians of 6.3% and 6.6%, respectively. Both are below the actual inflation rate of about 8% during this period. The average expected wage inflation rate is 7.20%, above the actual rate of around 5%, whereas the median expected wage inflation rate is 4%, slightly below the actual rate. Respondents substantially overestimated unemployment: the average expected unemployment rate is 7.2%, more than double the actual 3.5% in April and May 2022.[9] Participants reported an average desired contract length of 3.78 months for a monthly HIT, and the median respondent chose the maximum offered duration. Their average reservation wage is about $1 per 10 minutes of work, consistent with the HIT's posted reward.

Respondents in different treatment arms vary in demographic characteristics and prior expectations. While treatment assignment was unconditional on observables within each survey launch, the staggered timing of our surveys across different days and times creates a *blocked randomization design*, where blocks are defined by launch times. Because different types of MTurk workers are active at different times, each launch period represents a different pool of potential respondents.[10] Randomization within each launch period thus ensures treatment balance conditional on temporal worker availability patterns. We implement this blocked structure by including day- and time-of-survey fixed effects in all specifications. This approach recovers within-block (within-launch-period) treatment effects, accounting for systematic variation in worker composition across launch times and explaining most of the significant differences across treatment arms (see Appendix Table A.3). To further mitigate any residual imbalance, we control for a rich set of demographic and labor market characteristics, as well as prior expectations, ensuring that treatment effects are identified from exogenous variation in expectations rather than compositional differences across launch periods.

In addition to reporting results for the full sample, we also present regressions for two key subsamples: numerate and consistent respondents. Each group comprises about 75% of the sample, with imperfect overlap. Numerate respondents correctly answered all three numerical competence questions. Consistent respondents provided internally coherent answers across multiple reservation wage questions, making their reservation wage measure more reliable and indicating their greater attentiveness. Comparing estimates across these subsamples provides additional insight into the observed heterogeneity in labor supply responses.

[9]When eliciting unemployment expectations, we provided the range of unemployment rates observed from 2019 to 2021.

[10]The differences in demographic characteristics of MTurkers by day and time are evident from https://demographics.mturk-tracker.com//yearOfBirth/all.

3 Effects of Information Provision on Subjective Expectations

This section studies the treatment effect of the information provision, exploiting differential updating in expectations induced by randomized information treatments. We first analyze the direct and indirect effects of information treatments. Direct effects refer to the revision of expectations about a macroeconomic variable when information about that variable is provided. Indirect effects, or cross-learning, indicate the revision of expectations about one macroeconomic variable in response to information about another macroeconomic variable. We then discuss the implications of cross-learning for understanding households' subjective models of the economy.

3.1 Direct and Indirect Effects of Information Provision on Subjective Expectations

Does information about the CPI inflation rate delivered through a text transcription task induce workers to meaningfully revise their price inflation expectations? And does such information affect expectations about other macroeconomic variables? To answer these questions, we compare how expectations for a given variable change in response to receiving macroeconomically relevant information in the treatment group versus control group. We illustrate these revisions using binned scatter plots of posterior expectations, and expectation changes against priors (Figure 2), followed by regression analysis Table 2.

Graphical Evidence Figure 2 illustrates the revision of price inflation, wage inflation, and unemployment expectations for respondents in the treatment groups, compared with those in the control group, who received irrelevant information (air quality or COVID-19 vaccination rates). If the treatment was informative, we should observe larger expectation revisions in the treatment group; otherwise, revisions in the treatment group should resemble those in the control group.[11] Therefore, comparing expectation revisions relative to the control group allows us to isolate treatment effects, illustrated by the gap relative to the black line. Furthermore, the figure combines direct and indirect treatment effects.

The graph in Panel A shows that respondents who received information about current CPI inflation revise their price inflation expectations more than those in the control group (blue line with diamonds relative to the black line with solid circles). This suggests that treated respondents place substantially less weight on their priors and more weight on the provided signal, consistent with Bayesian updating.[12] Given that the treatment signal reported a 7.9% annual CPI inflation

[11] Comparison with the control group allows us to account for the fact that some revision may occur in both groups due to minor wording differences between prior and posterior questions.

[12] Consider a worker with a prior expectation of macroeconomic variable of interest $\mathbb{E}^{\text{prior}}[Z_{t+12}]$ who receives a relevant *Signal*. Under Bayesian learning, a posterior expectation is a weighted average of the prior and the signal:

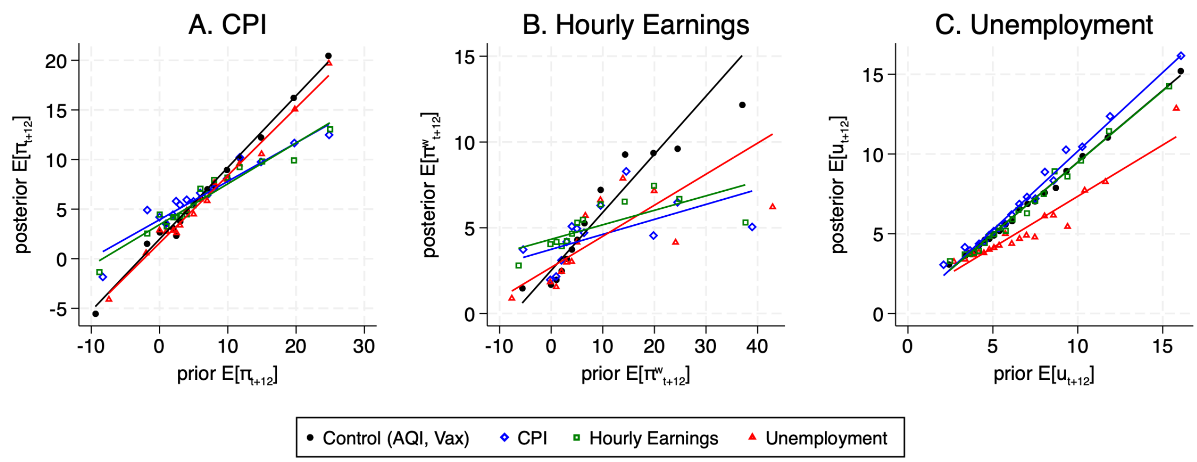
$$\mathbb{E}^{\text{post}}[Z_{t+12}] = (1-\alpha)\mathbb{E}^{\text{prior}}[Z_{t+12}] + \alpha\ Signal,$$

so that the expectation revision is:

$$\mathbb{E}^{\text{post-prior}}[Z_{t+12}] = \alpha\ Signal - \alpha\ \mathbb{E}^{\text{prior}}[Z_{t+12}],$$

rate, the graph shows that respondents adjust their expectations toward this value by placing a higher weight on the signal and decreasing the weight on the prior. Price inflation expectations also respond to information about hourly earnings growth (green line with diamonds) and, to a lesser extent, to information about the unemployment rate (red line with triangles). Such indirect updating of expectations indicates the presence of cross-learning.

Figure 2: Effects of information treatments on macroeconomic expectations



Notes: This figure draws binned scatter plots of the highly numerate respondents' posterior expectations over the next 12 months (on y-axis) against their priors (on $x-$axis) to illustrate the effect of information provision. The black line with circles corresponds to the control group, which received irrelevant information (AQI or Covid-19 vaccination rates). The blue line with diamonds represents respondents who received information about CPI inflation, the green line with squares represents respondents who received information about hourly earnings growth, and the red line with triangles represents respondents who received information about the unemployment rate. Huber-robust weights are applied. Highly numerate respondents are those who answered all numerical competence check questions correctly. Additional results for revision of expectations in response to various signals are reported in Online Appendix OA.1.1.

Panel B shows a similar pattern for expected hourly earnings growth. Workers revise their hourly earnings growth expectations not only in response to directly relevant information, a signal about annual hourly earnings growth of 3.7%, but also when provided with information about price inflation or unemployment rates. In all cases, treated respondents place less weight on their respective priors and more weight on the signal than those in the control group. The unemployment expectations in Panel C respond primarily to directly relevant information about the current unemployment rate of 3.6% (red line with triangles relative to black line with circles); however, they are largely unresponsive to indirect effects. Interestingly, in response to information about price inflation, workers place even more weight on their pessimistic priors relative to the control group. Overall, these results in Figure 2 suggest workers meaningfully revise their macroeconomic expectations in response to both directly and indirectly relevant information.

where $\alpha \in (0,1]$ is the weight placed on the signal, which corresponds to the Kalman gain under linear-Gaussian Bayesian learning. Our graphical and regression analyses estimate the weight parameter α.

Regression Analysis To formally study the effects of the information treatments on expectation updating, we estimate the following regression for price inflation, wage inflation, and unemployment expectations:

$$\begin{aligned}\mathbb{E}_{it}^{\text{post}}[Z_{t+12}] = & \beta_0 + \beta_1 \mathbb{E}_{it}^{\text{prior}}[Z_{t+12}] \quad + \sum_{k\in\{\pi,\pi^w,u\}} \beta_{2,k}\texttt{treat}_i^k \\ & + \sum_{k\in\{\pi,\pi^w,u\}} \beta_{3,k}\left(\texttt{treat}_i^k \times \mathbb{E}_{it}^{\text{prior}}[Z_{t+12}]\right) + \mathbf{X}_i'\gamma + \varepsilon_i \end{aligned} \tag{1}$$

for $Z = \{\pi, \pi^w, u\}$. Here, $\mathbb{E}_{it}^{\text{prior}}[Z_{t+12}]$ and $\mathbb{E}_{it}^{\text{post}}[Z_{t+12}]$ denote respondents' prior and posterior expectations, and $\texttt{treat}_i^Z$ indicates assignment to the group receiving information about variable Z. Thus, we regress posterior expectations on priors, treatment indicators, their interactions, and a set of control variables. Including indicators for all three information treatments and their interactions with prior expectations for each outcome Z allows us to capture both direct and indirect revision of expectations.[13] Following Coibion, Gorodnichenko, and Weber (2022), Coibion et al. (2023), Hajdini et al. (2024) and others, we use Huber-robust regressions to limit the influence of outliers.[14] The results are summarized in Table 2.

Table 2 shows substantial cross-learning, in line with the graphical evidence. Columns 1-4 show that price inflation expectations respond not only to CPI signals but also to signals about wage growth and, to a lesser extent, unemployment. The implied weight on the prior price inflation expectation falls from 0.63-0.76 by 0.25-0.34 points when respondents receive information on CPI or hourly earnings growth, and by 0.04-0.12 points when they receive unemployment information. Thus, even though workers react more strongly to direct signals, they update their expectations in response to *any* relevant macroeconomic information. These findings align with earlier evidence on information treatments and inflation expectations (see, for example, Binder, 2020; Cavallo, Cruces, and Perez-Truglia, 2017; Coibion et al., 2023; Coibion, Gorodnichenko, and Weber, 2022).

We observe similar patterns for hourly earnings inflation expectations (columns 5-8 of Table 2). Respondents in the treatment groups place significantly less weight on their priors than those in the control group. The implied prior weight falls from 0.22-0.37 by 0.15-0.30 when respondents receive information on hourly earnings growth or CPI inflation, and by a smaller 0.07-0.21 when they receive unemployment information.[15]

Cross-learning is also evident for unemployment expectations (columns 9-12 of Table 2), though to a lesser extent. Unemployment expectations are largely unresponsive to wage inflation signals, but price inflation information has a substantial and unexpected effect. When given information about unemployment, respondents revise their expectations toward the signal (the implied

[13]The regression results restricted only to direct information treatment effects, abstracting from cross-learning and thus attributing some indirect revisions to direct effects, are summarized in Online Appendix OA.1.2. They are similar to the direct effects in Table 2.

[14]See Online Appendix OA.1.4 for results from standard regression specifications.

[15]See the Online Appendix OA.1.3 for results using real wage inflation expectations, defined as wage inflation expectations minus price inflation expectations.

Table 2: Effects of information treatments on the posterior price inflation, wage inflation, and unemployment expectations (multiple treatments)

Dependent variable:	Price inflation ($Z = \pi$)				Wage inflation ($Z = \pi^w$)				Unemployment rate ($Z = u$)			
$\mathbb{E}^{\texttt{post}}_{it}[Z_{t+12}]$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
`treat_cpi`	2.03***	1.85***	1.73***	1.84***	0.90***	0.70***	1.24***	1.21***	-0.11	-0.26	-0.27	-0.20
	(0.23)	(0.24)	(0.26)	(0.25)	(0.20)	(0.21)	(0.24)	(0.21)	(0.22)	(0.23)	(0.21)	(0.22)
`treat_wage`	1.21***	1.14***	1.39***	1.73***	1.28***	1.16***	1.90***	1.92***	-0.12	-0.18	0.04	-0.04
	(0.22)	(0.23)	(0.25)	(0.23)	(0.20)	(0.21)	(0.23)	(0.21)	(0.22)	(0.23)	(0.22)	(0.22)
`treat_unemp`	-0.24	-0.14	-0.21	0.05	-0.34	-0.31	0.37	0.29	-0.19	-0.07	0.70***	0.61**
	(0.27)	(0.28)	(0.30)	(0.28)	(0.23)	(0.25)	(0.27)	(0.24)	(0.26)	(0.27)	(0.25)	(0.25)
`treat_cpi` $\times\ \mathbb{E}^{\texttt{prior}}_{it}[Z_{t+12}]$	-0.33***	-0.31***	-0.31***	-0.34***	-0.15***	-0.15***	-0.29***	-0.30***	0.09***	0.10***	0.09***	0.08***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)	(0.01)	(0.03)	(0.03)	(0.03)	(0.03)
`treat_wage` $\times\ \mathbb{E}^{\texttt{prior}}_{it}[Z_{t+12}]$	-0.26***	-0.25***	-0.31***	-0.30***	-0.16***	-0.16***	-0.29***	-0.29***	0.04	0.05*	-0.01	0.02
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)
`treat_unemp` $\times\ \mathbb{E}^{\texttt{prior}}_{it}[Z_{t+12}]$	-0.08***	-0.08***	-0.04	-0.12***	-0.07***	-0.08***	-0.21***	-0.22***	-0.14***	-0.13***	-0.28***	-0.28***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)
$\mathbb{E}^{\texttt{prior}}_{it}[Z_{t+12}]$	0.63***	0.63***	0.73***	0.76***	0.23***	0.22***	0.37***	0.37***	0.87***	0.87***	0.91***	0.90***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)
Sample	All	All	Numerate	Consistent	All	All	Numerate	Consistent	All	All	Numerate	Consistent
N	4612	4596	3380	3671	4612	4596	3380	3671	4612	4596	3380	3671
Controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes

Notes: This table presents the Huber-Robust regression output from equation (1). For each outcome variable specified in the header, the first column reports results without controls, the second column adds control variables, the third column restricts the sample to highly numerate respondents only (who answered all the numerical competence questions correctly), and the fourth column restricts the sample to consistent respondents only (for reservation wage questions, respondents were initially asked to provide their answers within specified ranges and then provide detailed numerical values. Consistent respondents are those who provided answers that matched these two questions). Control variables are female, age, age^2, white, whether cohabiting or not, whether having a child or not, full-time employed or not, logarithmic monthly spending on food, hours working at MTurk and at day job, education level, frequency of checking news, income group, and launch day and time fixed effects. The control group refers to those who have received irrelevant information such as the air quality index in Seattle or Covid-19 vaccination rates. Heteroskedasticity-robust standard errors are reported in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

prior weight falls from 0.87-0.91 by 0.14-0.28). In contrast, when given information about CPI, they revise unemployment expectations *away* from the signal, *increasing* the weight on their pessimistic priors by 0.08-0.10. This pattern suggests that respondents rely on a subjective model of the economy in which higher inflation is associated with higher unemployment, consistent with a stagflationary view of inflation (Andre et al., 2022; Kamdar, 2019) and with evidence that the inflation-unemployment policy tradeoff plays a limited role in household beliefs (Binetti, Nuzzi, and Stantcheva, 2024).

3.2 Pass-Through From and to Inflation Expectations

The results in Section 3.1 suggest that MTurkers update expectations about multiple variables in response to one piece of relevant information. Such cross-learning between price and wage inflation, in particular, is central to the theory of wage-price spirals. However, the estimates are not convenient to interpret numerically because they do not imply a clear mapping from expectations about one variable to expectations about another variable.

In this section, we quantify the extent to which updating expectations about variable $Z = \{\pi, \pi^w, u\}$ affects expectations about other variable Y. We do so by comparing how expectations of Y respond among workers who received direct information about $Z \neq Y$ relative to those in the control group, using a two-stage least squares (2SLS) approach. The second stage is estimated using Equation (2), and the first stage uses Equation (3). The coefficient β_1 captures the total causal pass-through (direct and indirect) from posterior expectations about Z to posterior expectations about Y. Results are presented in Table 3.

$$\mathbb{E}_{it}^{\text{post}}[Y_{t+12}] = \beta_0 + \beta_1 \mathbb{E}_{it}^{\text{post}}[Z_{t+12}] + \beta_2 \mathbb{E}_{it}^{\text{prior}}[Y_{t+12}] + \beta_3 \mathbb{E}_{it}^{\text{prior}}[Z_{t+12}] + \mathbf{X}_{it}'\delta + \nu_i. \tag{2}$$

$$\mathbb{E}_{it}^{\text{post}}[Z_{t+12}] = \alpha_0 + \alpha_1 \mathbb{E}_{it}^{\text{prior}}[Z_{t+12}] + \alpha_2 \texttt{treat}_i^Z + \alpha_3 \mathbb{E}_{it}^{\text{prior}}[Z_{t+12}] \times \texttt{treat}_i^Z + \mathbf{X}_i'\gamma + \varepsilon_i. \tag{3}$$

Panel A of Table 3 shows a 27-30% pass-through from wage inflation expectations to price inflation expectations. Panel B shows a 23-33% pass-through in the opposite direction, from price to wage inflation expectations, which is statistically significant in all specifications. This is only slightly higher than the 20% pass-through from price inflation expectations to subjective personal income growth reported in Hajdini et al. (2024). Assuming similar pass-through to subjective income growth expectations in our sample, the results may indicate that respondents view aggregate wage growth as somewhat stronger than growth in their own earnings. The fact that the estimated pass-through is highest for numerate respondents suggests they are most likely to view price inflation as an important determinant of wage setting.

Table 3: Pass-through between macroeconomic expectations

	(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)
				Panel A: *Pass-through to* $\mathbb{E}_{it}^{post}[\pi_{t+12}]$					
from $\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}^w]$	0.30**	0.31**	0.27***	0.30**	from $\mathbb{E}_{it}^{\text{post}}[u_{t+12}]$	0.48***	0.44**	0.25	0.33**
	(0.13)	(0.13)	(0.10)	(0.13)		(0.16)	(0.22)	(0.17)	(0.15)
F-stat	31.53	28.59	54.12	37.77		59.06	27.78	35.82	48.05
				Panel B: *Pass-through to* $\mathbb{E}_{it}^{post}[\pi_{t+12}^w]$					
from $\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}]$	0.23***	0.26***	0.33***	0.26***	from $\mathbb{E}_{it}^{\text{post}}[u_{t+12}]$	0.40***	0.41*	0.31	0.32**
	(0.09)	(0.09)	(0.09)	(0.08)		(0.17)	(0.23)	(0.21)	(0.16)
F-stat	37.99	39.45	42.44	46.31		59.29	27.36	35.39	47.38
				Panel C: *Pass-through to* $\mathbb{E}_{it}^{post}[u_{t+12}]$					
from $\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}]$	-0.03	-0.03	-0.06	-0.03	from $\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}^w]$	-0.08	-0.12	-0.03	-0.09
	(0.05)	(0.05)	(0.04)	(0.04)		(0.08)	(0.08)	(0.05)	(0.07)
F-stat	39.48	41.64	44.16	48.80		29.67	26.67	51.00	34.68
Sample	All	All	Numerate	Consistent		All	All	Numerate	Consistent
Controls	No	Yes	Yes	Yes		No	Yes	Yes	Yes

Notes: This table presents the Huber-Robust regression output from equation (2) summarizing the pass-through of expectations about the variable specified in the row to the variable specified in the panel subtitle. Control variables include female, age, age^2, white, whether cohabiting or not, whether having a child or not, full-time employed or not, logarithmic monthly spending on food, hours working at MTurk and at day job, education level, frequency of checking news, income group, and launch day and time fixed effects. The control group refers to those who have received irrelevant information such as the air quality index in Seattle or COVID-19 vaccination rates. The Kleibergen and Paap (2006) first-stage F-statistics are reported. Heteroskedasticity-robust standard errors are reported in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

The pass-through between unemployment expectations and price inflation expectations appears asymmetric and at least partly consistent with a stagflationary view. When workers received information indicating that unemployment was lower than they had expected and revised their unemployment expectations downward, they also reduced their price inflation expectations. This effect is statistically significant among respondents who answered consistently, though part of this pattern may reflect differences in observables, as the effect becomes statistically insignificant in some specifications with controls.[16]

In contrast, when respondents were told that price inflation was higher than expected and accordingly revised their inflation expectations upward, they made only small, statistically insignificant downward revisions to their unemployment expectations. While this weak pass-through does not provide clear support for a stagflationary view, it is also inconsistent with a purely demand-driven inflation narrative, under which higher inflation would be expected to signal tighter labor markets. One important consideration is that unemployment expectations were initially very high for most respondents, constraining upward revisions.

This asymmetric pass-through contrasts with prior evidence on the joint response of inflation and unemployment expectations to well-defined shocks (Andre et al., 2022; Binetti, Nuzzi, and Stantcheva, 2024). Because our design does not expose respondents to a clear structural shock, part of the asymmetry may arise from heterogeneity in how respondents infer the drivers of inflation from the provided signal. The sensitivity of the results to the inclusion of controls is also consistent with heterogeneity in subjective economic models across demographic groups. Finally, in a high-inflation environment, the aggregate unemployment rate may be less salient for online workers, with inflation expectations already conveying much of the information relevant for individual labor market decisions that is commonly attributed to the aggregate unemployment rate.

Economic Implications Taken together, the results are consistent with the idea that key macroeconomic variables are interconnected, with expectations about one variable responding to information about another, indicating non-trivial cross-learning. Cross-learning has important implications for understanding household behavior. When households revise expectations about *multiple* macroeconomic variables in response to a single piece of information, it becomes harder to infer their reaction to any particular shock. Instead of responding to an isolated shock, households appear to interpret the signal through a broader subjective model of the economy (Andre et al., 2022). For example, the stagflationary or supply-side view of inflation documented in prior work (Binder, 2020; Kamdar, 2019; McClure et al., 2025) implies that households expect higher inflation not only to erode real income but also to signal a worsening overall economy. At the same time, the results in Table 2 suggest that this subjective model also entails expectations of higher wage growth, partially offsetting pessimism about rising inflation and unemployment.

Ignoring cross-learning, that is, assuming households respond only to direct effects of information, can generate omitted-variable bias and lead to misleading inferences about how expectations

[16] The correlation between inflation and unemployment expectations remains positive and robust to controls; see Appendix B.

shape economic decisions (Dafoe, Zhang, and Caughey, 2018; Haaland, Roth, and Wohlfart, 2023). The next section examines how cross-learning across macroeconomic expectations influences labor supply decisions and discusses its implications for assessing wage-price spiral risks during the U.S. inflation surge of 2022.

4 Implications for Labor Supply and Wage-Price Spirals

In this section, we examine the *causal* relationship between inflation expectations and labor supply. As discussed earlier, subjective expectations about future economic conditions are unlikely to be exogenous. Many unobserved factors affect both expectations and labor supply decisions. To overcome these issues, we use an instrumental variable approach that exploits exogenous variation in expectations generated by the randomized information treatments.

4.1 The Effects of Inflation Expectations on Labor Supply

The main advantage of conducting an experiment on MTurk is that we can credibly offer future employment on terms elicited directly from workers. This enables us to measure workers' reservation wages as the lowest pay they would be willing to accept to work on *our* future HITs. We use this information to examine how inflation expectations affect reservation wages. A question of particular interest is whether workers who received information about the currently high price inflation rates revise their reservation wages upward to compensate for reduced purchasing power, as predicted by the wage-price spiral theory. Our experimental setting further allows us to compare responses across single-period and multiple-period contracts and test whether inflation expectations matter more over longer horizons. We complement the online evidence with measures of offline labor market preferences, which provide additional insight into how inflation expectations shape labor supply decisions beyond the online setting.

Effects on Online Labor Supply This section examines how macroeconomic expectations shape reservation wages for single-period and multi-period employment in our MTurk experiment.

We first consider how workers who received information about the CPI inflation rate adjust their reservation wages relative to those in the control group, restricting attention to a single treatment arm. The results are estimated using the following specification:

$$Y_{it}^{\texttt{post}} = \beta_0 + \beta_1 \mathbb{E}_{it}^{\text{post}}[\pi_{t+12}] + \gamma_0 Y_{it}^{\texttt{prior}} + \gamma_1 \mathbb{E}_{it}^{\text{prior}}[\pi_{t+12}] + \mathbf{X}_{it}'\delta + \eta_i \tag{4}$$

where Y_{it} is the reservation wage for a 10-minute monthly task, either for one additional period or for the respondent's desired number of periods, and $\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}]$ is instrumented with the CPI treatment indicator and its interaction with prior expectations. The coefficient of interest is β_1. The corresponding estimates are presented in Panel A of Table 4.

Columns 1-4 examine single-period reservation wages, defined as the minimum pay required to complete one 10-minute HIT in the following month. As shown in Panel A, the estimated effect of price inflation expectations on single-period reservation wages is positive but small and not statistically different from zero. Columns 5-8 examine multi-period reservation wages, defined as the lowest total payment required to work for the respondent's desired duration. In this case, the effect of price inflation expectations is negative and marginally significant among respondents providing consistent answers, but estimates in other specifications are imprecise due to smaller sample sizes.

These results, while largely statistically insignificant, do not suggest that workers immediately demand higher pay due to upward revision of inflation expectations, especially for multi-period contracts, where the negative effects of inflation on real incomes are most pronounced. However, there are two limitations. First, a small sample size reduces the precision of the estimates. Second, omission of wage inflation and unemployment expectations, which, according to the results in Section 3, are also affected by information about price inflation, creates omitted variable bias.[17]

Next, to address the presence of information spillovers and simultaneous updating of multiple expectations more rigorously, we estimate the regression model with all the measured expectations (price, wage, and unemployment rates) as endogenous variables in the second-stage equation:

$$\begin{aligned} Y_{it}^{\texttt{post}} = \beta_0 + \beta_1 \mathbb{E}_{it}^{\text{post}}[\pi_{t+12}] + \beta_2 \mathbb{E}_{it}^{\text{post}}[\pi_{t+12}^{w}] + \beta_3 \mathbb{E}_{it}^{\text{post}}[u_{t+12}] \\ + \gamma_0 Y_{it}^{\texttt{prior}} + \gamma_1 \mathbb{E}_{it}^{\text{prior}}[\pi_{t+12}] + \gamma_2 \mathbb{E}_{it}^{\text{prior}}[\pi_{t+12}^{w}] + \gamma_3 \mathbb{E}_{it}^{\text{prior}}[u_{t+12}] + \mathbf{X}_{it}'\delta + \eta_i \end{aligned} \tag{5}$$

where Y_{it} is the reservation wage for a 10-minute monthly task, either for one additional period or for multiple periods at the respondents preferred duration. Because the posterior expectation variables are endogenous, we instrument them with the information treatment indicators and their interactions with prior expectations. The first-stage equations are summarized in Equation (1).[18] The coefficients of interest are β_1-β_3's. The results are summarized in Panel B of Table 4.[19]

Single-period reservation wages (columns 1-4) show little response to any expectation variables, with coefficients that are negative but not statistically significant, consistent with the low salience of macroeconomic conditions over short horizons. While point estimates suggest higher price inflation expectations may slightly reduce single-period wages and higher wage inflation expectations may increase them, effects are small and statistically insignificant.

[17]The results are qualitatively similar, and in some cases even sharper, when we control for posterior wage inflation and unemployment expectations. The main patterns also persist when pooling all treatment arms and controlling for posterior wage inflation and unemployment expectations (see Online Appendix OC.3.2.1)

[18]We instrument $\mathbb{E}_{it}^{\texttt{post}}[Z_{t+12}]$ for $Z \in \{\pi, \pi^w, u\}$ using $\texttt{treat\_cpi}_{it}$, $\texttt{treat\_wage}_{it}$, $\texttt{treat\_unemp}_{it}$, $(\texttt{treat\_cpi}_{it} \times \mathbb{E}_{it}^{\texttt{prior}}[\pi_{t+12}])$, $(\texttt{treat\_cpi}_{it} \times \mathbb{E}_{it}^{\texttt{prior}}[\pi_{t+12}^{w}])$, $(\texttt{treat\_wage}_{it} \times \mathbb{E}_{it}^{\texttt{prior}}[\pi_{t+12}^{w}])$, $(\texttt{treat\_wage}_{it} \times \mathbb{E}_{it}^{\texttt{prior}}[\pi_{t+12}])$, and $(\texttt{treat\_unemp}_{it} \times \mathbb{E}_{it}^{\texttt{prior}}[u_{t+12}])$.

[19]The estimation sample in the second stage is smaller than in the first stage for three reasons. First, we exclude observations for which respondents report zero desired months of employment both before and after the information treatment, as reservation wages are not meaningful for individuals who indicate no desire to work. Second, based on the jackknife procedure we excluded a small number of observations to limit the influence of outliers. Third, to address outliers among expectations in the 2SLS estimation, we apply the geometric average of the Huber-robust first-stage weights across endogenous variables; observations that receive zero weight in *any* first-stage equation therefore receive zero weight in the second stage as well.

In contrast, multi-period reservation wages respond more strongly. Because desired employment duration extends up to 5 months, expected price inflation should play a more prominent role in multi-period labor supply decisions, making this setting particularly suitable for testing the wage-price spiral theory. The results in columns 5-8 show that a one percentage point increase in price inflation expectations *reduces* multi-period reservation wages by 1.1-1.3 percent (given the average/median reward per 10 minutes of about $1) across samples. In contrast, a one percentage point increase in wage inflation expectations *raises* multi-period reservation wages by 0.7-1.4 percent. Unemployment expectations show mixed, though not statistically significant, effects across subsamples.

Table 4: Effects of macroeconomic expectations on online reservation wages

	Reservation Wage (in cents)							
	Single Period				Multi-Period			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A	CPI treatment arm vs Control group							
$\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}]$	0.58	0.56	0.31	0.60	-1.53*	-0.83	-0.90	-2.00***
	(0.56)	(0.57)	(0.63)	(0.60)	(0.79)	(0.66)	(0.77)	(0.77)
F-stat for $\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}]$	41.92	37.21	30.25	35.91	29.54	36.88	37.09	40.37
N	2,682	2,655	1,939	2,064	2,630	2,641	1,901	2,064
Panel B	All treatment arms with tripple IV							
$\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}]$	-0.41	-0.49	-0.23	-0.35	-1.29*	-0.69	-1.28**	-1.07*
	(0.89)	(0.80)	(0.72)	(0.67)	(0.68)	(0.61)	(0.57)	(0.63)
$\mathbb{E}_{it}^{\text{post}}[\pi^{w}_{t+12}]$	0.27	0.47	0.32	0.48	1.43**	1.11**	0.70**	0.83*
	(0.83)	(0.79)	(0.46)	(0.61)	(0.63)	(0.55)	(0.32)	(0.48)
$\mathbb{E}_{it}^{\text{post}}[u_{t+12}]$	0.63	0.42	0.31	0.62	-1.24	-0.50	0.00	-0.33
	(1.33)	(1.69)	(1.08)	(0.92)	(0.97)	(1.30)	(0.71)	(0.77)
F-stat for $\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}]$	9.68	11.44	16.67	13.24	9.65	11.44	16.55	13.12
F-stat for $\mathbb{E}_{it}^{\text{post}}[\pi^{w}_{t+12}]$	15.11	16.52	44.70	23.60	15.05	16.54	44.65	23.45
F-stat for $\mathbb{E}_{it}^{\text{post}}[u_{t+12}]$	23.30	13.46	32.28	29.99	23.41	13.54	32.29	30.04
N	3,344	3,366	2,385	2,631	3,344	3,366	2,385	2,631
Sample	All	All	Numerate	Consistent	All	All	Numerate	Consistent
Controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes

Notes: This table reports regression results estimating the effects of macroeconomic expectations on reservation wages in the online labor market. Panel A presents results from Equation (4), instrumenting $\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}]$ with the CPI-inflation treatment indicator and its interaction with prior inflation expectations; these estimates isolate the responses of the CPI treatment arm relative to the control group. Panel B presents results from Equation (5), treating all posterior macroeconomic expectations as endogenous. They are instrumented using the treatment dummies and their interactions with prior expectations, as described in footnote 18. The numerate sample includes respondents who answered all numerical competence questions correctly, and the consistent sample includes those who provided internally consistent responses to multiple reservation-wage questions. We report the Kleibergen and Paap (2006) first-stage F-statistics in Panel A and the Sanderson and Windmeijer (2016) multivariate F-statistics in Panel B. To address outliers in expectations, we apply the geometric average of the Huber-robust first-stage weights across the endogenous variables. In the second stage, we use a jackknife procedure to mitigate the influence of outliers. Appendix C provides further details. Heteroskedasticity-robust standard errors are reported in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Our results are robust to (i) analyzing information treatments through the lens of broad regime changes, following Andrade, Gautier, and Mengus (2023), who show that household decision-making responds more to qualitative shifts in perceived economic regimes than to precise changes in point expectations; (ii) adjustments for multiple hypothesis testing; (iii) specifications that use more extensive sets of instrumental variables; and (iv) inference procedures that are robust to weak instruments.[20]

We also examine effects on respondents' desired duration of employment and find no statistically significant effects of macroeconomic expectations on this outcome, which likely reflects limited variation in respondents' stated durations, as most selected the maximum allowed duration from the outset, as well as the fact that this measure captures respondents' desired duration of employment *with us*, rather than their overall labor supply, which may respond differently to changes in macroeconomic expectations.[21]

Overall, our findings on the effect of inflation expectations on online labor supply contradict the predictions of wage-price spiral theory. When price inflation expectations rise, workers do not demand higher compensation to offset reduced purchasing power. Instead, over longer employment horizons, they *lower* their reservation wages. By contrast, higher wage inflation expectations increase reservation wages, indicating that workers do respond to expected improvements in their earning opportunities. These patterns suggest that workers interpret price inflation and wage inflation as fundamentally different signals. Moreover, the sum of the coefficients on price and wage inflation expectations is not statistically different from zero, implying that if expected prices and wages increase by the same amount, workers' reservation wages remain unchanged. In other words, workers respond to expected real wage changes rather than purely nominal fluctuations, a pattern consistent with the absence of money illusion in labor supply decisions.

The opposing effects of price versus wage inflation expectations suggest that workers do not treat price inflation as a simple cost-of-living indexation signal. Instead, workers appear to interpret higher expected price inflation through a supply-side or stagflationary lens (Binder, 2020; Kamdar, 2019; McClure et al., 2025). When expected price inflation rises, workers revise their economic outlook downward. This interpretation is consistent with our pass-through results in Section 3.2, which show that workers expect nominal wages to only partially keep pace with prices (pass-through of 0.2-0.3), as well as with evidence that upward revisions in inflation expectations are associated with increased perceived labor market risk and higher measured uncertainty.[22] Consistent with this interpretation, survey evidence shows that revisions in inflation expectations are accompanied by changes in reported uncertainty (e.g., Coibion et al., 2024; Coibion, Gorod-

[20]Full details are provided in the Online Appendix OC.3. In Online Appendix OC.3.2.4, we assess instrument strength using the robust effective F-statistic of Montiel Olea and Pflueger (2013) for specifications with a single endogenous variable and the generalized weak-instrument diagnostics of Lewis and Mertens (2025) for specifications with multiple endogenous variables. We also show that our results are robust to weak-instrument-robust inference (e.g., conditional likelihood ratio tests).

[21]Results for the desired duration of employment are reported in the Online Appendix OC.3.3.

[22]Evidence that higher inflation expectations raise the subjective probability of job loss or labor force exit in the offline labor market is provided in Online Appendix OC.3.4. Online Appendix OA.1.6 further shows that higher inflation expectations are associated with increases in our uncertainty proxy, constructed following Binder (2017).

nichenko, and Kumar, 2018). Taken together, our findings suggest that inflation expectations operate in part through perceived risk and uncertainty channels, in line with broader evidence that macroeconomic uncertainty induces precautionary responses in household and firm behavior (Coibion et al., 2024; Kumar, Gorodnichenko, and Coibion, 2023).

This perspective helps explain the relatively limited role of unemployment expectations in shaping online reservation wages. If inflation expectations already incorporate information about future labor market conditions, separate revisions in unemployment expectations may add little incremental explanatory power in the MTurk setting, where employment relationships are short-term and highly flexible.[23] In such an environment, aggregate unemployment may be less directly relevant for individual labor supply decisions. More broadly, workers are likely to place greater weight on beliefs about their *own* unemployment risk and earnings prospects than on aggregate unemployment rates, which are more abstract and less directly mapped into individual job-finding probabilities.

The stronger response for multi-period contracts is particularly informative. In the MTurk setting, multi-period employment is an option, not an obligation: workers can lock in stable income streams while searching for better opportunities and declining future HITs (terminating the contract) if conditions improve. The decline in multi-period reservation wages when price inflation expectations rise can therefore be interpreted as a willingness to accept a lower wage in exchange for income stability, effectively paying an implicit "insurance premium" against uncertain future labor market conditions. The fact that this pattern emerges even in a low-friction environment, where demanding higher pay is costless, indicates that it is unlikely to be driven by institutional frictions or utility costs of wage bargaining, but rather reflects workers interpretation of higher inflation as a cautionary signal about future economic conditions.

Effects on Offline Labor Market Preferences We elicited offline labor supply preferences by asking additional questions at the end of the survey. While we did not measure these outcomes before the information treatment due to survey length constraints, the results provide insight into how inflation expectations affect offline labor market behavior beyond reservation wages.

Table 5 shows a consistent pattern with the online labor market results. Higher price inflation expectations increase workers' subjective probability of switching employers or becoming self-employed in the next four months (columns 1-4), while simultaneously raising the pay raise required to do so (columns 5-8). This joint response is more consistent with heightened perceived risk than with aggressive wage demands. By contrast, higher wage inflation expectations reduce switching probabilities and have negative or null effects on required premia, suggesting that broad wage growth is interpreted as a signal of improving labor market conditions.

Unemployment expectations play a relatively limited role across most offline labor supply margins, mirroring the online results. The main exception is perceived unemployment risk, where

[23]Consistent with this interpretation, the effects of inflation expectations on perceived labor market risk are qualitatively similar to those of unemployment expectations, suggesting that inflation already conveys much of the labor market information typically associated with the aggregate unemployment rate. See Online Appendix OC.3.4.

both inflation and unemployment expectations increase the subjective probability of job loss or labor force exit, while wage inflation expectations reduce it.[24] This alignment reinforces the interpretation of price inflation as conveying adverse labor market information rather than representing a purely nominal shock. Additionally, we find no significant effects on desired changes in hours worked, mirroring the negligible effects on desired employment duration in the online setting.[25]

Table 5: Effects of macroeconomic expectations on offline labor market preferences

	Pr (Switch)				Pay raise required to switch jobs			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}]$	1.10**	0.91***	0.62***	0.69***	0.56**	0.61***	0.48*	1.01***
	(0.43)	(0.29)	(0.21)	(0.26)	(0.26)	(0.24)	(0.26)	(0.28)
$\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}^{w}]$	-0.98**	-0.82***	-0.50***	-0.57***	-0.18	-0.27	-0.27**	-0.29**
	(0.40)	(0.25)	(0.17)	(0.18)	(0.26)	(0.17)	(0.12)	(0.13)
$\mathbb{E}_{it}^{\text{post}}[u_{t+12}]$	2.14***	0.11	-0.01	0.37	1.62***	0.00	-0.39	0.27
	(0.34)	(0.30)	(0.28)	(0.24)	(0.34)	(0.44)	(0.28)	(0.32)
N	2,860	2,908	2,023	2,159	2,472	2,433	1,653	1,778
Sample	All	All	Numerate	Consistent	All	All	Numerate	Consistent
Controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
F-stat for $\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}]$	4.67	7.37	11.25	7.65	5.79	6.25	7.20	7.95
F-stat for $\mathbb{E}_{it}^{\text{post}}[\pi_{t+12}^{w}]$	6.70	8.90	18.91	14.35	8.34	9.50	16.40	17.94
F-stat for $\mathbb{E}_{it}^{\text{post}}[u_{t+12}]$	13.22	14.15	23.57	32.45	11.76	6.69	15.51	14.82
Mean outcome	10.68	10.65	9.10	8.65	19.26	19.13	18.49	18.00
SD outcome	1.33	10.96	10.98	10.75	8.86	8.73	8.69	8.85

Notes: This table presents the regression results for the effect of macroeconomic expectations on the subjective reported probability of being employed by a different employer or self-employed in the next four months (Columns 1-4) and required pay raise to switch jobs (Columns 5-8) according to equation (5) but without controlling for the pre-treatment value of dependent variable. We instrument the posterior expectations with treatment dummies and their interactions with the priors, as specified in footnote 18. The numerate sample consists of respondents who answered all the numerical competence check questions correctly. The consistent sample consists of respondents who provided consistent answers to distinct reservation wage questions. The Sanderson and Windmeijer (2016) multivariate F-statistics are reported. We use the geometric average of the weights generated from the Huber-robust regressions for each variable of interest in the first stage to control for outliers of the variables regarding expectations. To control for outliers in the second stage, we use a jackknife approach. See Appendix C for details about the treatment of outliers. Heteroskedasticity-robust standard errors are reported in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

These findings are consistent with evidence that inflation expectations increase job-to-job transitions (Afrouzi et al., 2026; Bostanci, Koru, and Villalvazo, 2022; Pilossoph and Ryngaert, 2024), but add the important nuance that price and wage inflation expectations operate through different mechanisms. The increased premium for switching employers when price inflation expectations rise, combined with a reduced premium and a lower propensity to switch when wage inflation expectations rise, further supports the supply-side interpretation: workers view price inflation as a negative economic signal that increases labor market uncertainty, prompting them to seek more lucrative yet stable employment rather than unconditionally demand compensation for lost purchasing power.

[24]See Online Appendix OC.3.4 for details.

[25]Results for desired changes in offline hours worked and for desired duration of employment online are reported in the Online Appendix OC.3.4.

Implications for Wage-Price Spirals The feedback loop between price inflation expectations, wage inflation expectations, and workers' wage demands is central to the persistence of wage-price spirals. While we documented spillovers between price and wage inflation expectations in Sections 3.1 and 3.2, the key question for spiral dynamics is whether workers adjust wage demands upward in response to higher expected inflation—the critical first link.

By leveraging the revisions of both price and wage inflation expectations induced by randomized information treatments and linking them to reservation wage changes in the online labor market, our results provide a direct test of this first link in a setting where wages play an allocative role. We find that when workers learn that price inflation is higher than expected, they revise upward both price and wage inflation expectations (Table 2). A conventional wage-price spiral view would predict higher wage demands in response. Instead, we find that although higher wage inflation expectations raise reservation wages, higher price inflation expectations reduce reservation wages for multi-period MTurk contracts (Table 4). Rather than seeking compensation for anticipated losses in purchasing power, workers appear willing to accept lower pay to secure employment.

Complementary evidence from the offline setting shows that higher price inflation expectations increase both the likelihood of considering job transitions and the pay raise required to switch (Table 5). This pattern of expanded search activity combined with higher switching thresholds is more consistent with greater perceived risk than with optimism about better opportunities. Overall, the responses in both the online and offline settings are consistent with households responding to higher inflation expectations in a precautionary manner.

Taken together, these findings provide little support for wage-price spiral dynamics driven by household wage demands. Instead, they suggest that U.S. households interpret inflation primarily as a supply-side or stagflationary shock, one that signals weaker future conditions and induces precautionary labor supply adjustments rather than upward wage pressure.

4.2 Model of Reservation Wages

To rationalize our findings, we develop a labor supply model in which workers' reservation wages respond to expectations about both wage and price inflation. Building on the standard McCall (1970) framework, we allow risk-averse workers to face uncertainty about future real wage offers and decide whether to accept current jobs or continue searching. Nominal wages are fixed and non-indexed, reflecting the short-term, high-frequency nature of online labor markets. Inflation expectations affect reservation wages through two channels. First, they shift the perceived real wage distribution, altering the mean of future offers and the option value of continued search. Second, they influence the perceived dispersion of future offers, generating a precautionary effect: greater expected variability in real wages leads risk averse workers, especially those with lower reservation wages, to accept jobs earlier. These mechanisms jointly explain the divergent effects of price and wage inflation expectations observed in our experimental data.

Setup We consider a discrete-time environment ($t = 0, 1, 2, \ldots$) in which workers have strictly concave utility $u(c)$ over real consumption with $u' > 0$, $u'' < 0$, and discount factor $\beta \in (0, 1)$. Jobs pay *fixed* nominal wages without indexation, reflecting typical online labor market practices. When the price level is P_t and the expected inflation rate is π_e^p, so that $\mathbb{E}[P_{t+1}] = (1 + \pi_e^p)P_t$, a job accepted at real wage x today will pay real flow $y \equiv x/(1 + \pi_e^p)$ next period; real wages erode in the absence of indexation.

Unemployed workers receive job offers with probability $\alpha_u \in (0, 1]$, while employed workers receive offers with probability $\alpha_e \in [0, 1]$, enabling job-to-job transitions. Jobs are destroyed exogenously with probability $\delta \in (0, 1)$, returning workers to unemployment. Real wage offers are drawn from a distribution $F(\cdot; \mu, \sigma)$ with survivor function $S = 1 - F$ and density f, where the parameters (μ, σ) depend on workers' inflation expectations.

The value of employment at real wage x, denoted $W(x)$, and the value of unemployment U (with real benefit b) satisfy standard Bellman equations:

$$W(x) = u(x) + \beta\Big[\delta U + (1 - \delta)\big\{(1 - \alpha_e)W(y) + \alpha_e\mathbb{E}\big[\max\{W(x'),\, W(y)\}\big]\ \big\}\Big], \tag{6}$$

$$U = u(b) + \beta\Big[(1 - \alpha_u)U + \alpha_u\,\mathbb{E}\big[\max\{W(x'),\, U\}\big]\ \Big]. \tag{7}$$

An employed worker receives current utility $u(x)$ and faces three possibilities next period: the job is destroyed with probability δ (returning to unemployment), the job persists but no new offer arrives with probability $(1 - \delta)(1 - \alpha_e)$ (continuing at eroded wage $y = x/(1 + \pi_e^p)$), or a new offer x' arrives with probability $(1 - \delta)\alpha_e$. Similarly, an unemployed worker receives b today, generating $u(b)$, and either remains unemployed or receives an offer x' with probability α_u.

Real reservation wage x^r is defined as the value that satisfies $W(x^r) = U$. Because $W(\cdot)$ is strictly increasing (from $u' > 0$), acceptance rules are characterized by simple thresholds: unemployed workers accept offers exceeding x^r, while employed workers accept offers exceeding their current eroded real wage y.

Option Value and Reservation Wages Standard dynamic programming methods yield an exact characterization of the reservation wage. Define the option-value kernel $H(z) := \int_z^\infty S(k)W'(k)\,dk$, which captures the expected marginal gain from waiting for offers above threshold z. This kernel is strictly decreasing: $H'(z) < 0$, reflecting that higher thresholds sacrifice option value.

Proposition 1. *Let x^r satisfy $W(x^r) = U$. Then x^r is the unique solution to*

$$R(x^r) \equiv u(x^r) - u(b) - \beta\alpha_u H(x^r) + \beta(1 - \delta)\alpha_e H(y^r) - \beta(1 - \delta)\int_{y^r}^{x^r} W'(k)\,dk, \tag{8}$$

where $y^r = x^r/(1 + \pi_e^p)$.

Proof. See Appendix D.1. □

The first two terms represent the myopic gain from accepting employment over remaining unemployed. The last three terms are forward-looking adjustments that reflect dynamic search considerations. First, the unemployed option premium $\beta\alpha_u H(x^r)$ captures the value of waiting for better offers while unemployed. Second, the on-the-job upgrade discount $-\beta(1-\delta)\alpha_e H(y^r)$ reflects continued search while employed. Third, the inflation erosion term $\beta(1-\delta)\int_{y^r}^{x^r} W'(k)\,dk$ accounts for the mechanical loss from wage erosion due to the lack of indexation when $\pi_e^p > 0$.

To ensure that the reservation wage is well-defined and unique, we verify that $R_x \equiv \partial R(x^r)/\partial x^r$ is strictly positive, as formalized in the following lemma.

Lemma 1.

$$R_x \equiv \frac{\partial R(x^r)}{\partial x^r} = u'(x^r) + \beta\alpha_u W'(x^r)S(x^r) - \beta(1-\delta)W'(x^r) + \frac{\beta}{1+\pi_e^p}(1-\delta)\Big[W'(y^r) - \alpha_e W'(y^r)S(y^r)\Big] > 0,$$

and this guarantees a unique x^r.

Proof. See Appendix D.2. □

4.2.1 Effect of Wage Inflation Expectations

We now examine how workers' expectations about future wage growth affect their current reservation wages. In real terms, wage inflation expectations, π_e^w, operate by shaping workers' beliefs about the distribution of future real wage offers. Specifically, higher expected wage inflation is interpreted as a shift in the perceived real offer distribution $F(\cdot;\mu,\sigma)$ through changes in its mean and dispersion. We refer to this mechanism as the *belief-driven channel*, as inflation expectations influence labor supply decisions by altering subjective law of motion about the future real wage offers. Let $\mu_w := \partial\mu/\partial\pi_e^w$ and $\sigma_w := \partial\sigma/\partial\pi_e^w$ capture how expectations affect the mean and standard deviation of perceived real offers. Then

$$\frac{dx^r}{d\pi_e^w} = -\frac{\mu_w R_\mu + \sigma_w R_\sigma}{R_x},$$

where $R_\mu = \partial R(x^r)/\partial\mu$, $R_\sigma = \partial R(x^r)/\partial\sigma$, and $R_x = \partial R(x^r)/\partial x^r$.[26]

The Mean Channel We now characterize how an increase in the expected mean of the real offer distribution affects the reservation wage, as summarized in the following proposition.

Proposition 2. *Let $\alpha_g := \alpha_u - (1-\delta)\alpha_e$. Using $H_\mu(y^r) = H_\mu(x^r) + \int_{y^r}^{x^r}(W'f + SK_\mu)\,dk$,*

$$R_\mu = \beta\Big[-\alpha_g H_\mu(x^r) + (1-\delta)\int_{y^r}^{x^r}\big(\alpha_e W'(k)f(k) + (\alpha_e S(k)-1)K_\mu(k)\big)\,dk\Big], \tag{9}$$

[26]Wage inflation expectations may also affect reservation wages by altering workers subjective beliefs about job arrival and separation rates (α_u, α_e, and δ). We examine these cases in Online Appendix OE.5.3. Given the nature of online labor markets, however, we view substantial shifts in these parameters in response to wage inflation expectations as unlikely.

where $K_\mu(k) \equiv \partial W'(k)/\partial\mu$ *and*

$$H_\mu(x^r) \equiv \frac{\partial H(x^r)}{\partial \mu} = \underbrace{\left[\int_{x^r}^{\infty} W'(k) f(k) \mathrm{d}k\right]}_{\textit{tail-shift}} + \underbrace{\left[\int_{x^r}^{\infty} K_\mu(k) S(k) \mathrm{d}k\right]}_{\textit{job-to-job discount effect}}.$$

Under mild regularity conditions satisfied in online labor markets, the tail-shift term dominates, and $R_\mu \leq 0$ *follows.*[27]

Proof. See Appendix D.3. □

When workers expect higher wage inflation, they anticipate a rightward shift in the real offer distribution, that is, $\mu_w > 0$. This improvement in future prospects operates through two mechanisms. First, the tail of acceptable offers shifts rightward, directly increasing the option value of waiting $H(x^r)$. Second, future job-to-job transitions become more attractive, though this effect is partially offset by a "job-to-job discount" term: higher expected future wages mean the current job is more likely to be overtaken by better offers, reducing its expected duration and thus its continuation value. In environments with high job turnover (large δ), the second offsetting effect is small. Moreover, when the erosion window $[y^r, x^r]$ is short, we can ignore the second term in Equation (9).

Under mild regularity conditions typical of MTurk-style markets, when $\mu_w > 0$, the mean channel ($-R_\mu > 0$) raises reservation wages. Higher expected wage inflation improves the perceived quality of future job offers, increasing the option value of continued search. Workers, therefore, become more selective, demanding higher wages today in anticipation of better opportunities tomorrow. This effect is stronger when the unemployed option is relatively attractive ($\alpha_g > 0$), as in MTurk, where employed and unemployed workers face similar offer arrival rates ($\alpha_u \approx \alpha_e$), and jobs are short-lived (high δ). This prediction aligns closely with our second-stage estimates for online labor supply in Table 4, which indicate a positive and statistically significant causal effect of wage inflation expectations on reservation wages. Consistent with this mechanism, our offline results show that higher wage inflation expectations reduce the probability of switching employers and lower the premia required to switch jobs, indicating that workers who expect broad wage growth perceive current employment as more valuable and feel less need to engage in precautionary mobility. Taken together, the online and offline evidence supports interpreting $\mu_w > 0$ as the empirically relevant restriction governing the response to wage inflation expectations.

The Variance Channel Risk aversion introduces a mechanism absent in standard, risk-neutral search models: precautionary labor supply. When workers perceive greater dispersion in the wage distribution, probability mass shifts into both tails, and the recursive valuation of future opportunities changes. As a result, the option value of continued search is reassessed, generating a precautionary response.

[27] For example, we need a large δ and the short erosion window $[y^r, x^r]$. See Online Appendix OE.5.2.1 for formal derivation of sufficient condition that generates $-R_\mu > 0$.

Proposition 3.

$$R_\sigma = \beta\Big[-\alpha_g\, H_\sigma(x^r) + (1-\delta)\int_{y^r}^{x^r} \big(\alpha_e\, W'(k)\, S_\sigma(k) \;+\; (\alpha_e S(k) - 1)\, K_\sigma(k)\big)\, dk\Big], \tag{10}$$

where $K_\sigma(k) \equiv \partial W'(k)/\partial\sigma$, and

$$H_\sigma(x^r) = \underbrace{\int_{x^r}^{\infty} W'(k)\, \frac{k-\mu}{\sigma}\, f(k)\, dk}_{\text{tail shift}} \;+\; \int_{x^r}^{\infty} K_\sigma(k)\, S(k)\, dk.$$

Under the mild regularity conditions satisfied in MTurk-style markets, the tail-shift component dominates. In this case, however, its sign is not *definite: it depends on whether x^r lies above or below the mean μ. For workers with $x^r \leq \mu$, we have $H_\sigma \leq 0$ and hence $R_\sigma \geq 0$. Conversely, for workers with $x^r \geq \mu$, $H_\sigma \geq 0$ and thus $R_\sigma \leq 0$.*[28]

Proof. See Appendix D.4. □

For common distributions such as the normal, an increase in dispersion raises the probability of both very low and very high wage offers. Under risk neutrality, where marginal utility is constant, heterogeneity in the reservation wage implies that positive and negative responses cancel out, so the average effect may be small depending on where the average reservation wage lie relative to the mean, μ.

With concave utility, the symmetry breaks. Since $u'' < 0$ implies that marginal utility is highest at low wages, the continuation value places disproportionately greater weight on downside states. As dispersion increases, the additional probability mass in the left tail receives more weight than the mass added in the right tail. For workers whose reservation wages lie at or below the mean, this makes the tail-shift component of the option value negative: greater dispersion reduces the value of waiting. The strength of this effect depends on prudence, the curvature of marginal utility, which determines how sharply marginal value rises as wages fall. Greater dispersion thus magnifies the influence of low-wage outcomes and depresses the perceived continuation value.

In high-turnover markets such as Amazon MTurk, where job spells are short (i.e., δ is high), these tail-shift forces dominate smaller adjustment terms in the option value. Increased perceived volatility, thus, lowers the return to waiting for risk-averse workers, especially those with low reservation wages. If workers also expect wage inflation to raise wage dispersion, this precautionary motive strengthens, pushing reservation wages downward. This captures precautionary labor supply: when future wages feel more uncertain, risk-averse workers become more willing to accept a job now to insure against downside risk, sacrificing some upside potential in the process.

Because the mean and variance channels could operate in opposite directions, workers' responses vary across the distribution. Those with reservation wages near or above the mean mainly respond to the mean channel: higher expected future wages increase the value of search, raising

[28] See Online Appendix OE.5.2.1 for formal derivation of conditions that generates $-R_\sigma \geq 0$ and $-R_\sigma \leq 0$.

their reservation wages. Those well below the mean are more exposed to downside risk and may instead lower their reservation wages when perceived dispersion rises.

The aggregate response depends on the composition of workers and how inflation expectations affect both the mean and the dispersion of perceived wages. If expectations primarily raise the mean, reservation wages rise overall. But if expectations also increase perceived volatility, the precautionary channel can weaken the aggregate effect. Our empirical results indicate that the mean channel, with $\mu_w > 0$, governs the average response of reservation wages to wage inflation expectations, while $\sigma_w > 0$ may moderate this response through a precautionary channel that is most relevant for workers with lower reservation wages.

4.2.2 Effect of Price Inflation Expectations

Unlike wage inflation expectations, price inflation expectations operate through multiple channels because nominal wages are not indexed. Expected price inflation therefore alters how workers value both current and future job opportunities. We decompose its total effect into five channels:

Proposition 4 (Decomposition of Price-Inflation Expectation Effect)**.**

$$R_\pi \equiv \frac{\partial R}{\partial \pi_e^p} = \underbrace{\mathcal{D}_\pi^{(\Lambda)}}_{\text{direct discounting}} + \underbrace{\mathcal{B}_\pi}_{\text{moving boundary}} + \underbrace{\mathcal{A}_\pi}_{\text{argument re-scaling}} + \underbrace{\mu_\pi R_\mu + \sigma_\pi R_\sigma}_{\text{belief-driven}}, \quad \Rightarrow \quad \frac{dx^r}{d\pi_e^p} - \frac{R_\pi}{R_x}.$$

where the first three channels are formally defined in Appendix OE.5.2.2 and $\mu_\pi := \partial\mu/\partial\pi_e^p$ and $\sigma_\pi := \partial\sigma/\partial\pi_e^p$ capture how price inflation beliefs shape the perceived distribution of real wage offers.

Quantitatively, with short horizons/high separation (a high δ), the first three channels are small:

$$\mathcal{D}_\pi^{(\Lambda)} = O\big((1-\delta)^2\big), \quad \mathcal{B}_\pi = O(1-\delta), \quad \mathcal{A}_\pi = O\big((1-\delta)\,\Delta\big), \qquad \text{where } \Delta := x^r \frac{\pi_e^p}{1+\pi_e^p}.$$

so the overall effect is dominated by the belief-driven terms.

Proof. See Appendix D.5. □

The first three terms represent "mechanical" effects stemming from the interaction between price inflation and non-indexed nominal wages. First, the direct discounting channel $\mathcal{D}\pi^{(\Lambda)}$ operates through the real discount factor $\beta/(1+\pi_e^p)$ embedded in continuation values: higher expected price inflation reduces the real discount factor, shortens the effective planning horizon, and makes immediate job acceptance more attractive. Second, the moving-boundary channel $\mathcal{B}_\pi$ arises because higher expected inflation lowers next period's acceptance threshold for employed workers, expanding the set of offers they would accept and thereby raising the value of employment today. Third, the argument re-scaling channel $\mathcal{A}_\pi$ captures how expected inflation shifts the wage levels used in the continuation-value calculation.

In high-turnover markets such as MTurk, where job spells are short, the mechanical channels are second-order. The dominant forces instead come from the belief-driven channel, *i.e.*, workers' beliefs about how inflation affects the mean and dispersion of real wage offers. Our first-stage and cross-learning results suggest that information about inflation systematically alterns not only inflation expectations but also expectations about wages and labor market conditions, indicating that respondents interpret inflation through a broader subjective macroeconomic model rather than as a purely mechanical erosion of real pay.

With this belief-driven channel, if workers hold a stagflationary view and expect nominal wages to lag behind price inflation, then higher expected inflation lowers the perceived mean of future real wage offers, $\mu_\pi < 0$. Through the mean channel, this reduces the option value of waiting and pushes reservation wages downward. If they also believe inflation raises uncertainty about future real wages ($\sigma_\pi > 0$), the precautionary channel further lowers reservation wages, especially for workers with low reservation wages who are most exposed to downside risk (Section 4.2.1). We provide empirical support for the dispersion channel, $\sigma_\pi > 0$, by showing that upward revisions in inflation expectations are associated with increases in our uncertainty proxy, constructed following Binder (2017).[29]

These belief-driven mechanisms align closely with our empirical findings. In the online labor market, higher price inflation expectations causally reduce reservation wages, indicating that pessimistic mean and uncertainty effects dominate. In the offline labor market, higher inflation expectations are associated with greater perceived unemployment risk and higher premia required to switch jobs, consistent with inflation being interpreted as a signal of more uncertain and deteriorating labor market conditions. Overall, the evidence suggests that price inflation expectations primarily shape labor supply through belief-driven shifts in the perceived mean ($\mu_\pi < 0$) and dispersion ($\sigma_\pi > 0$) of real wage offers, rather than through mechanical discounting effects.

4.2.3 Special Case: Single-Period Contract

Set $\delta = 1$ so that any job accepted today ends before the next period. Then the value of being employed simplifies to $W(x) = u(x) + \beta U$, where the unemployment value U is defined as before.

Proposition 5. *If $\delta = 1$ and (μ, σ) do not respond to inflation expectations, i.e. $\mu_\pi = \frac{\partial \mu}{\partial \pi_e^p} = 0$, $\sigma_\pi = \frac{\partial \sigma}{\partial \pi_e^p} = 0$, $\mu_w = \frac{\partial \mu}{\partial \pi_e^w} = 0$, and $\sigma_w = \frac{\partial \sigma}{\partial \pi_e^w} = 0$, then*

$$\frac{dx^r}{d\pi_e^w} = 0, \qquad \frac{dx^r}{d\pi_e^p} = 0.$$

With a one-period contract, there is no employment continuation, and the belief-driven channel is shut down by construction, so inflation expectations do not affect the reservation wage. When $\delta = 1$ and there is little or no passthrough from expectations to the real offer distribution over a short horizon, both wage and price inflation expectations leave the reservation wage unchanged. Any observed response therefore stems from either (i) expectations shifting (μ, σ) *even over a short interval*, or (ii) institutional features that effectively reintroduce continuation, such as indexation or automatic renewal, so that the multi-period channels operate again.

[29] See Online Appendix OA.1.6 for details.

4.2.4 Model Implications and Generalizability

Our theoretical analysis explains our empirical findings in the previous section through two channels operating on workers' beliefs about real wage offers. The mean channel predicts that higher expected wage growth increases reservation wages by improving the option value of waiting, while stagflationary beliefs about price inflation and/or nominal wages lagging prices reduce expected real wages, lowering reservation wages. The precautionary channel with risk aversion predicts that increased perceived uncertainty makes workers with low reservation wages more willing to accept employment to avoid downside risk. Together, these mechanisms rationalize why price and wage inflation expectations have opposing effects on both MTurk reservation wages and offline switching behavior.

In principle, expectations about aggregate unemployment can also affect reservation wages through the same belief-driven channels as inflation expectations. Higher expected unemployment may be interpreted as a deterioration in future labor market conditions, lowering the perceived mean of real wage offers ($\mu_u < 0$) and increasing perceived dispersion ($\sigma_u > 0$). Through these, pessimistic unemployment expectations reduce the option value of waiting and strengthen precautionary labor supply, particularly for workers with low reservation wages. We do not emphasize these in the baseline analysis because, empirically, aggregate unemployment expectations have limited effect on reservation wages in our data. Nonetheless, the model implies that unemployment expectations can influence labor supply as long as workers interpret them as informative signals.

Whether the quantitative magnitudes we observe on MTurk generalize to traditional offline labor markets depends on institutional features that affect the relative importance of different model channels. MTurk jobs are extremely short-lived, making mechanical price-inflation channels (discounting, moving boundaries, argument re-scaling) negligible; reservation wages respond primarily to belief-driven channels, *i.e.* beliefs about the real offer distribution. In offline markets, longer job durations make mechanical channels first order. However, three pieces of evidence suggest our mechanisms remain relevant.

First, our pass-through results show workers believe offline wages are only partially indexed to prices (pass-through of 0.2-0.3). This means the belief-driven channels we identify, that is, how expectations shape perceived real offer value, operate even in offline labor markets with some indexation. Real wages thus erode between adjustments, making workers' expectations about future real wages directly relevant to employment decisions.

Second, the offline switching results indicate that belief-driven channels, rather than mechanical erosion of real wages, are the dominant force behind workers' responses to inflation expectations. Mechanical considerations alone could increase switching if workers seek to offset real wage erosion by moving to higher-paying employers, implying more optimistic job prospects and stronger demands in current jobs. Instead, we observe the opposite: workers expecting higher inflation report greater job switching probability and higher premia required to switch, alongside higher likelihood of becoming unemployed or out of the labor force, while higher wage inflation expectations predict the opposite. This pattern is consistent with our model's prediction that stagflationary beliefs and heightened uncertainty, not simple real erosion, drive workers' labor supply behavior.

Third, the similarity of patterns across MTurk (reservation wages) and offline (switching probability and required pay raises) settings, despite their institutional differences, suggests that workers apply similar reasoning across contexts. In both settings, they interpret price inflation as a negative signal about the economy rather than a reason to demand matching wage increases.

Several institutional differences may affect magnitudes. On MTurk, unemployed and employed workers face similar offer arrival rates, so the unemployed option dominates ($\alpha_g > 0$) and higher expected wage growth raises reservation wages. In traditional markets, stronger employed search ($\alpha_e > \alpha_u$, implying $\alpha_g \leq 0$) could potentially reverse this, though our offline results suggest the mean channel continues to operate in the predicted direction.

Additionally, the parameters α_e, α_u, and δ are effectively fixed on MTurk (all tasks visible, negligible application costs), but may respond to inflation expectations in offline markets. For example, under stagflationary views, workers might anticipate weaker hiring intensity (lower α_u), further reducing reservation wages through the option-value channel.[30] Similarly, we hold search effort fixed, appropriate for MTurk but potentially important in offline markets where search involves costly time and transportation (Pilossoph and Ryngaert, 2024). However, the reservation-wage channel remains valid whether search effort is fixed or endogenous.

In summary, our empirical findings across both MTurk and offline settings align with the prediction of the model that inflation expectations shape labor supply primarily through beliefs about real wage offers. The mechanisms we identify, mean and precautionary channels operating through perceived offer distributions, appear robust across institutional contexts, though magnitudes likely vary with pay levels, job duration, indexation practices, and search parameters. The fact that price inflation expectations both reduce wage demands online and increase job switching offline suggests this behavioral response reflects a broader interpretation of inflation as a negative signal about economic conditions rather than a platform-specific artifact.

5 Discussion and Conclusions

We use experimental evidence to document interactions between macroeconomic expectations and study their effects on labor supply preferences. Randomized information treatments generate exogenous variation in subjective expectations about price inflation, wage inflation, and unemployment rates, which we exploit to estimate causal effects on MTurk workers' reservation wages and labor market preferences. Our results provide the first direct causal evidence on how inflation expectations affect labor supply and suggest limited risks of wage-price spirals in the high-inflation environment of 2022.

We find three main results. First, information about a single macroeconomic variable induces

[30] See Online Appendix OE.5.3 for formal comparative statics.

workers to significantly revise multiple expectations jointly. Price and wage inflation expectations move together, but contrary to conventional views, price inflation expectations are positively correlated with unemployment expectations, in line with a positively sloped "subjective Phillips curve." The symmetric pass-through between price and wage inflation, indicating that workers recognize wage growth as both a consequence and a driver of inflation, contrasts with Hajdini et al. (2024), who find no significant effect of inflation information on personal income growth expectations. The weak pass-through from inflation to unemployment expectations contrasts with findings on joint responses to hypothetical shocks (Andre et al., 2022; Binetti, Nuzzi, and Stantcheva, 2024) and likely reflects heterogeneity in the subjective models workers use to interpret inflation. Overall, our results suggest that inflation plays as important a role in MTurkers' economic outlook as the aggregate unemployment rate does. Consistent with a stagflationary interpretation, higher inflation induces cautious revisions to workers' economic outlook.

Second, higher price inflation expectations *decrease* reservation wages for multi-period contracts while higher wage inflation expectations increase them. This result holds after accounting for cross-learning between expectations and extends to offline labor market preferences: higher price inflation expectations increase the probability of switching employers and required pay raises to switch, while wage inflation expectations have opposite effects. We find no statistically significant increase in reservation wages due to price or wage inflation expectations for single-period contracts, consistent with low salience of macroeconomic conditions over short horizons. The willingness to accept lower pay when price inflation expectations rise, rather than demanding compensation for lost purchasing power, indicates workers interpret inflation as a negative economic signal, prioritizing employment security over marginal wage gains. This response attenuates the first link in wage-price spirals, consistent with recent evidence of worker reluctance to demand inflation compensation (Guerreiro et al., 2024; Stantcheva, 2024).

Third, inflation-induced decline in reservation wages can be rationalized with a McCall (1970)-type job search model. With risk-averse workers and non-indexed wages, inflation expectations operate through workers' beliefs about real wage offers. A mean channel predicts higher expected wage growth raises reservation wages by increasing the option value of waiting, while stagflationary beliefs or incomplete pass-through from prices to wages reduce the perceived quality of offers and lower reservation wages. A precautionary channel predicts that greater perceived dispersion of real wage offers lowers reservation wages for workers below the mean of the offer distribution, as they seek to insure against downside risk. Together, these mechanisms explain the opposing effects of price and wage inflation expectations and predict heterogeneity across worker types, thus underscoring the importance of inflation-related uncertainty in rationalizing the observed behavior.

Several points warrant discussion given that our experiments were conducted on Amazon MTurk, an online labor market with distinctive features. First, while MTurk workers are younger and more educated than the general U.S. population, they are similar along many other dimensions. Additionally, prior research shows that experiments conducted on MTurk have a high degree of replicability (Haaland, Roth, and Wohlfart, 2023; Horton, Rand, and Zeckhauser, 2011).

Second, labor supply on MTurk is more flexible than in offline labor markets. On one hand, this is an advantage, as researchers commonly focus on flexible margins that are less constrained by frictions, such as wages of new hires or job search intensity. Additionally, MTurk workers represent individuals on the margin of adjustment who are of particular concern for policymakers. On the other hand, due to low entry and exit costs, online jobs are often secondary employment with less tangible effects on earnings. The magnitude of differences between labor supply responses in online and offline labor markets is left for future work.

The main question is how generalizable labor supply responses on MTurk are to those in offline labor markets. It is reasonable to expect that if workers typically demand pay increases commensurate with inflation in their offline jobs, they would do so online as well. Information processing costs might reduce this probability, but adjusting pay for inflation should be straightforward for those who are comfortable with basic percentage calculations, and demanding higher pay in our experiment requires no additional effort or utility cost. The fact that workers did not demand higher pay, even though over 80% hold day jobs, suggests that uniformly demanding pay increases commensurate with inflation is not pervasive in the population. Furthermore, both our job search model and additional results for the offline labor market suggest that the same behavioral patterns of supply-side view and precautionary labor supply shape decisions in both online and offline settings. Therefore, even from a particular population segment, these results provide useful insights into labor supply responses to inflation expectations. Moreover, non-standard work arrangements account for a sizable share of labor market activity in the U.S. (Wu and Huang, 2024), so the flexible labor supply margins studied in this paper are economically relevant even abstracting from broader generalizability.

Our findings contribute to understanding expectation formation, cross-learning between macroeconomic beliefs, and the micro-foundations of wage-price dynamics. When workers interpret inflation primarily through a supply-side lens, consistent with our empirical results and the job search model, inflation expectations alone are unlikely to trigger the feedback loops central to persistent inflation via the labor supply channel. Whether this pattern persists in different economic environments and across different labor market segments remains an important question for future research.

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Appendix

A Data Description

A.1 Attrition

In late April-May, 2022, a total of 10,758 survey attempts were recorded on MTurk, resulting in 5,487 completed responses. We examine if the attrition is systematically correlated with treatment arms. Table A.1 shows that the attrition rates are not different across treatment arms.

Table A.1: Attrition rates by treatment arms ($N = 10,758$)

CPI	Wage	Unemp	AQI	Vax
0.50	0.50	0.48	0.49	0.48

To further examine if the attrition is systematically different across treatment arms, we regress the indicator variable denoting the attrition on treatment arm dummies. Table A.2 further illustrates that attrition is not systematically related to the treatment arms.

Table A.2: Regression of attrition rates on treatment arms

treat_cpi	treat_unemp	treat_vax	treat_wave	Constant
0.007	-0.011	-0.012	0.013	0.489***
(0.015)	(0.016)	(0.015)	(0.014)	(0.010)

Standard errors in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.2 Descriptive analysis

Table A.3 shows that after controlling for survey launch time fixed effects, differences in prior expectations and other demographic characteristics become largely statistically insignificant except for a few variables. To account for the remaining imbalances, in all specifications, we control for prior expectations. In addition, we report the results with an extensive set of demographic controls.

B Correlation Between Price Inflation and Unemployment Rates

This section reports OLS results for the relationship between price inflation and unemployment expectations. Table B.1 shows that price inflation expectations and unemployment expectations are consistently positively correlated both before and after the information treatment. The information treatment strengthened the correlation because the coefficients for posterior expectations across all treatment arms are larger than those for the control group only.

C Treatment of Outliers

To address outliers in expectations and labor supply data, we follow the strategy of Coibion et al. (2023). Specifically, we use a Huber-robust regression in the first stage, implemented via STATAs

Table A.3: Covariate balance across treatment arms

Variable	(1) `intercept (unemp)`	(2) `control`	(3) `treat_cpi`	(4) `treat_wage`
female	0.47	-0.01	-0.04	0.01
	(0.03)	(0.02)	(0.03)	(0.03)
age	40.94	0.28	-0.50	-0.76
	(0.74)	(0.62)	(0.71)	(0.73)
white	0.79	-0.02	0.01	0.01
	(0.02)	(0.02)	(0.02)	(0.02)
cohabiting	0.66	0.03	0.08**	0.05
	(0.03)	(0.02)	(0.03)	(0.03)
employed	0.86	-0.03	-0.00	-0.02
	(0.02)	(0.02)	(0.02)	(0.02)
with college degree	0.75	-0.02	0.06*	-0.04
	(0.03)	(0.02)	(0.02)	(0.03)
income $\geq$ \$50k	0.50	-0.01	-0.03	-0.02
	(0.03)	(0.02)	(0.03)	(0.03)
log(monthly spending on food)	5.42	0.10	-0.06	0.14
	(0.09)	(0.08)	(0.09)	(0.09)
log(monthly spending on gas)	4.18	0.05	0.07	0.11
	(0.11)	(0.09)	(0.11)	(0.11)
log(day job hours)	2.75	0.00	0.03	0.08
	(0.08)	(0.07)	(0.08)	(0.09)
log(weekly MTurk hours)	2.63	0.06	0.30***	0.14*
	(0.06)	(0.05)	(0.06)	(0.06)
$\mathbb{E}_t^{\texttt{prior}}[\pi_{t+12}]$	5.81	0.39	0.12	-0.58
	(0.47)	(0.38)	(0.45)	(0.46)
$\mathbb{E}_t^{\texttt{prior}}[\pi_{t+12}^w]$	6.19	0.88	2.26***	-0.14
	(0.63)	(0.51)	(0.62)	(0.57)
$\mathbb{E}_t^{\texttt{prior}}[u_{t+12}]$	7.24	0.17	-0.04	-0.10
	(32.35)	(0.19)	(0.21)	(0.22)
$\mathbb{E}_t^{\texttt{prior}}[vax_{t+12}]$	63.97	1.39	-1.11	0.99
	(1.27)	(1.12)	(1.27)	(1.29)
$\mathbb{E}_t^{\texttt{prior}}[aqi\_good_{t+1}]$	0.62	-0.02	-0.03	-0.03
	(0.03)	(0.02)	(0.03)	(0.03)
$\mathbb{E}_t^{\texttt{prior}}[\texttt{reservation wages}_{t+1}]$ (single-period, in cents)	106.13	-0.83	0.68	-0.34
	(2.36)	(1.98)	(2.33)	(2.17)
$\mathbb{E}_t^{\texttt{prior}}[\texttt{reservation wages}_{t+1}]$ (multi-period, in cents)	109.11	-0.73	-1.06	0.74
	(3.45)	(2.97)	(3.39)	(3.47)
N	4612			

Notes: This table reports coefficients from regressions of predetermined (pre-treatment) variables on treatment indicators, controlling only for survey-time fixed effects. The first column reports the average value for the unemployment treatment group (the intercept). The remaining columns report differences relative to this group for the other treatment and control groups (slope coefficients). Heteroskedasticity-robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All coefficients in the first column are statistically significant at the 1% level; significance symbols are omitted for this column for ease of exposition.

`rreg` command.[31] This procedure generates weights that downweight outliers in the subjective expectations data. In the second stage, we use these weights. Because we estimate three first stage regressions, one each for posterior price expectations, wage inflation expectations, and expected unemployment, we obtain three sets of weights. We take their geometric average and use this combined weight in the second stage.

To further mitigate the influence of outliers in the second stage for the reservation wage variable, we apply a jackknife procedure. Specifically, we compute the regression coefficients repeatedly, each time dropping one observation, to identify influential observations. We then remove any observations that change the coefficient on posterior expectations by more than the threshold $2/\sqrt{N} + \varepsilon$, where N is the sample size and $\varepsilon \approx 0$, following Belsley, Kuh, and Welsch (1980).[32]

[31]For further details, see the help file for STATAs `rreg` command or Appendix C of Coibion et al. (2023).

[32]We have experimented with alternative values of ε. For example, in the full sample of the first wave, after removing

Table B.1: Association between expected price inflation and unemployment rates

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Association between price inflation and unemployment expectations						
Prior, all arms						
$\mathbb{E}_{it}^{prior}[u_{t+12}]$	0.21***	0.20***	0.21***	0.21***	0.23***	0.22***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Posterior, control arms						
$\mathbb{E}_{it}^{post}[u_{t+12}]$	0.25***	0.25***	0.25***	0.22***	0.25***	0.26***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Posterior, all arms						
$\mathbb{E}_{it}^{post}[u_{t+12}]$	0.27***	0.27***	0.30***	0.28***	0.25***	0.26***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Panel B: Association between unemployment and price inflation expectations						
Prior, all arms						
$\mathbb{E}_{it}^{prior}[\pi_{t+12}]$	0.05***	0.05***	0.05***	0.04***	0.05***	0.05***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Posterior, control arms						
$\mathbb{E}_{it}^{post}[\pi_{t+12}]$	0.13***	0.11***	0.10***	0.08***	0.11***	0.09***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Posterior, all arms						
$\mathbb{E}_{it}^{post}[\pi_{t+12}]$	0.16***	0.14***	0.14***	0.12***	0.13***	0.11***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Sample	All	All	Numerate	Numerate	Consistent	Consistent
Controls	No	Yes	No	Yes	No	Yes

Notes: Panel A of the table presents Huber-robust regression output for equation $\mathbb{E}_{it}[\pi_{t+12}] = \alpha_0 + \alpha_1 \mathbb{E}_{it}[u_{t+12}] + X_i'\gamma + \varepsilon_i$. Panel B of the table reports Huber-robust regression output for equation $\mathbb{E}_{it}[u_{t+12}] = \alpha_0 + \alpha_1 \mathbb{E}_{it}[\pi_{t+12}] + X_i'\gamma + \varepsilon_i$. The numerate sample consists of respondents who answered all the numerical competence questions correctly. The consistent sample consists of respondents who provided matching answers to distinct reservation wage questions. Control variables are female, age, age^2, white, whether cohabiting or not, whether having a child or not, full-time employed or not, logarithmic monthly spending on food, hours working at MTurk, education level, frequency of checking news, income group, and launch time fixed effects. The control group refers to those who have received irrelevant information such as the air quality index in Seattle or Covid-19 vaccination rates.

D Supplementary Materials for the Model

This appendix collects proofs for the model results stated in the main text. All supporting derivations (integration-by-parts identities, envelope recursions, and distribution-specific bounds) are provided in Online Appendix OE.5.

D.1 Proof of Proposition 1

Proof. Let $W(x)$ be the value of being employed at real wage x and let U be the value of unemployment. The corresponding Bellman equations are given by (6) and (7), with $y = x/(1+\pi_e^p)$. Since $u' > 0$, $W(\cdot)$ is increasing, implying a cutoff rule. In particular, an employed worker accepts a new offer iff $x' \geq y$.

duplicated observations, we have 4,612 observations, corresponding to a threshold of 0.0294. We confirm that our results are robust to threshold values ranging from 0.03 to 0.06.

Define the option-value kernel $H(\cdot)$ by the integration-by-parts identity

$$\int_z^\infty W(x)\,dF(x) = W(z)S(z) + H(z), \qquad H(z) := \int_z^\infty S(x)W'(x)\,dx, \tag{D.1}$$

where $H'(z) = -W'(z)S(z) < 0$ (see Online Appendix OE.5.1 for details).

Evaluating Equation (7) at the unemployment cutoff x^r defined by $W(x^r) = U$ and using Equation (D.1) yields

$$(1-\beta)U = u(b) + \beta\alpha_u H(x^r). \tag{D.2}$$

Next, rewrite Equation (6) using the acceptance rule and apply Equation (D.1) at $z = y$ to obtain

$$W(x) = u(x) + \beta\delta U + \beta(1-\delta)\{W(y) + \alpha_e H(y)\}.$$

Evaluating at $x = x^r$ and using $W(x^r) = U$ gives

$$U = u(x^r) + \beta\delta U + \beta(1-\delta)\{W(y^r) + \alpha_e H(y^r)\}, \qquad y^r := \frac{x^r}{1+\pi_e^p}.$$

Finally, use $W(y^r) = W(x^r) - \int_{y^r}^{x^r} W'(k)\,dk = U - \int_{y^r}^{x^r} W'(k)\,dk$ and substitute Equation (D.2). Rearranging yields the reservation equation

$$R(x^r) \equiv u(x^r) - u(b) - \beta\alpha_u H(x^r) + \beta(1-\delta)\alpha_e H(y^r) - \beta(1-\delta)\int_{y^r}^{x^r} W'(k)\,dk = 0. \tag{D.3}$$

□

D.2 Proof of Lemma 1

Proof. Differentiating $R(x^r)$ in Equation (D.3) with respect to x^r, and using $H'(z) = -W'(z)S(z)$ and $dy^r/dx^r = 1/(1+\pi_e^p)$ gives

$$R_x = u'(x^r) + \beta\alpha_u W'(x^r)S(x^r) - \beta(1-\delta)W'(x^r) + \frac{\beta}{1+\pi_e^p}(1-\delta)W'(y^r)\big[1-\alpha_e S(y^r)\big]. \tag{D.4}$$

The first two terms are positive because $u' > 0$, reflecting the direct utility gain from a higher real reservation wage. The third term is negative since raising x^r leads to rejecting offers that would otherwise be accepted, reducing the value of employment ($W' > 0$). The final term captures a continuation-value correction and is positive because $W'(y^r)(1-\alpha_e S(y^r)) > 0$. Overall, the first two terms are likely to dominate, as they represent first-order marginal utility and option-value effects, whereas the latter two are discounted continuation-value corrections and thus second order. Therefore, $R_x > 0$, implying uniqueness of the cutoff and well-defined comparative statics. A sufficient bound (and the supporting envelope recursion for W') is provided in Online Appendix OE.5.2. □

D.3 Proof of Proposition 2

Proof. From the Bellman equation of the employed, Equation (6), the employed envelope recursion can be written as

$$W'(x) \;=\; u'(x) \;+\; \Lambda\big(y(x)\big)\,W'\big(y(x)\big), \quad \Lambda(t) \;:=\; \frac{\beta}{1+\pi_e^p}\,(1-\delta)\,\big[\,1-\alpha_e\,S(t)\,\big], \tag{D.5}$$

which iterates forward to

$$W'(x) \;=\; \sum_{j=0}^{\infty}\left(\prod_{i=1}^{j}\Lambda\big(y_i(x)\big)\right)u'\big(y_j(x)\big), \qquad \text{(empty product} = 1 \text{ for } j=0). \tag{D.6}$$

Differentiating Equation (D.5), holding the *argument* fixed, yields

$$K_\mu(x) \;=\; \Lambda_\mu\big(y(x)\big)\,W'\big(y(x)\big) \;+\; \Lambda\big(y(x)\big)\,K_\mu\big(y(x)\big), \;\; \text{where } \Lambda_\mu(t) \;=\; -\frac{\beta}{1+\pi_e^p}(1-\delta)\,\alpha_e\,f(t)\;\leq 0. \tag{D.7}$$

Therefore, $K_\mu \leq 0$ globally.

Now, let $\alpha_g := \alpha_u - (1-\delta)\alpha_e$. Using $H_\mu(y^r) = H_\mu(x^r) + \int_{y^r}^{x^r}(W'f + SK_\mu)\,dk$ and $K_\mu \leq 0$, we have

$$R_\mu = \beta\Big[-\alpha_g\,H_\mu(x^r) \;+\; (1-\delta)\int_{y^r}^{x^r}\underbrace{\big(\alpha_e W'(k)f(k) + (\alpha_e S(k)-1)K_\mu(k)\big)}_{\geq 0}\,dk\Big].$$

To examine the sign of the above, consider first

$$H_\mu(x) := \partial H(x)/\partial\mu = \underbrace{\left[\int_x^\infty W'(k)f(k)\mathrm{d}k\right]}_{\geq 0} + \underbrace{\left[\int_x^\infty K_\mu(k)S(k)\mathrm{d}k\right]}_{\leq 0}.$$

The first term captures the positive tail-shift effect of a higher μ, which shifts the offer distribution right and increases option value. The second term is negative due to the job-to-job discount effect ($K_\mu \leq 0$), as a higher μ raises the likelihood of future upgrades and reduces the marginal value of the current job. Considering Amazon MTurk environment, the tail-shift likely dominates the short "erosion window" integral. Formally, the sufficient condition under which we have $H_\mu(x) \geq 0$ is (See Online Appendix OE.5.2.1 for derivation):

$$\int_y^\infty W'(k)f_R(k)\,\mathrm{d}k > \frac{\beta}{1+\pi_e^p}(1-\delta)\,\frac{\alpha_e}{1-\bar{\Lambda}}\,\bar{f}\,\overline{W'}\int_y^\infty S(k)\,dk, \tag{D.8}$$

where $\overline{W'} := \sup_{k\geq 0} W'(k)$ and $\bar{f} := \sup_{k\geq 0} f(k)$. This condition is likely to hold when the effective horizon is short and on-the-job upgrading is limited, as in MTurk-like environments; accordingly, we assume $H_\mu \geq 0$. Given this, a sufficient condition for $R_\mu < 0$ is that the tail-shift effect dominates the erosion window and remaining discount terms in Equation (9). Under a normal distribution and monthly horizons, these terms are small, implying that an increase in the mean future wage raises the reservation wage. The full sufficient condition and its proof are provided in the Online Appendix OE.5.2.1. □

D.4 Proof of Proposition 3

Proof. Differentiating Equation (D.5), holding the *argument* fixed, yields

$$K_\sigma(x) \;=\; \Lambda_\sigma\big(y(x)\big)\,W'\big(y(x)\big) \;+\; \Lambda\big(y(x)\big)\,K_\sigma\big(y(x)\big), \;\; \text{where } \Lambda_\sigma(t) = -(\beta/(1+\pi_e^p))(1-\delta)\alpha_e S_\sigma(t). \tag{D.9}$$

Therefore, the sign of K_σ follows S_σ and can flip around $t = \mu$ (for any location-scale family). Now, consider

$$H_\sigma(y) := \partial H(y)/\partial\sigma = \int_y^\infty W'(k)\, S_\sigma(k)\, dk \;+\; \int_y^\infty K_\sigma(k)\, S(k)\, dk. \tag{D.10}$$

Under a change of variables, the tail-shift term (the first term in Equation (D.10)) is proportional to

$$\int_y^\infty W'(k)\, S_\sigma(k)\, dk = \int_{z_y}^\infty W'(\mu + \sigma z)\, z\, \phi(z)\, dz, \qquad z_y := \frac{y-\mu}{\sigma}.$$

Because $u'' < 0$ implies declining W', probability mass shifted left of μ receives higher weight. Thus, when y^r (and hence x^r) lies below μ ($z_y \le 0$), the tail-shift term is negative. This term is bounded above by a negative function $L(y)$, while the job-to-job kernel term (the second term in Equation (D.10)) is bounded in absolute value by $B(y)$, which is small when the effective horizon is short (high δ or π_e^p) or on-the-job search is weak. The expressions for $L(y)$ and $B(y)$ are derived in Online Appendix OE.5.2.1.

Hence, if $-L(y) \ge B(y)$ with $z_y \le 0$, then $H_\sigma(y) \le 0$. This condition is more likely to hold for low reservation wages ($x^r \ll \mu$), strong curvature (high prudence), or short job horizons.

Turning to R_σ,

$$-R_\sigma = \beta\Big[\alpha_g\, H_\sigma(x^r) - (1-\delta)\alpha_e\big(H_\sigma(y^r) - H_\sigma(x^r)\big) + (1-\delta)\int_{y^r}^{x^r} K_\sigma(k)\, dk\Big],$$

the last two "short window" terms are $O\big((1-\delta)\,\Delta\big)$ with $\Delta = x^r \frac{\pi_e^p}{1+\pi_e^p}$, and are small at monthly horizons or under high turnover (see Online Appendix OE.5.2.1 for the proof). Thus, we have $H_\sigma(x^r) \le 0 \Rightarrow R_{\sigma_R} < 0$. $\square$

D.5 Proof of Proposition 4

Proof. Write R_π as the sum of (i) the *explicit* dependence of the continuation weights $\Lambda(t) = \frac{\beta}{1+\pi_e^p}(1-\delta)\big[1-\alpha_e S(t)\big]$ holding arguments fixed, (ii) the dependence through the moving cutoff $y^r = x^r/(1+\pi_e^p)$, (iii) the dependence through the within-kernel rescaling $y(x) = x/(1+\pi_e^p)$, and (iv) any dependence of the perceived real offer law $F(\cdot;\mu,\sigma)$ via $\mu_\pi := \partial\mu/\partial\pi_e^p$ and $\sigma_\pi := \partial\sigma/\partial\pi_e^p$. This yields

$$R_\pi = \underbrace{\mathcal{D}_\pi^{(\Lambda)}}_{\text{explicit }\Lambda} + \underbrace{\mathcal{B}_\pi}_{y^r\text{ boundary}} + \underbrace{\mathcal{A}_\pi}_{y(\cdot)\text{ rescaling}} + \underbrace{\mu_\pi R_\mu + \sigma_\pi R_\sigma}_{\text{belief-driven}},$$

where R_μ, R_σ are as in Equation (9)–(10).

$\mathcal{D}_\pi^{(\Lambda)}$: Direct discounting channel. Let

$$\Lambda_\pi(t) := \frac{\partial\Lambda(t)}{\partial\pi_e^p}\Big|_{\text{arg fixed}} = -\frac{\beta}{(1+\pi_e^p)^2}(1-\delta)\,\big[1-\alpha_e S(t)\big] \;\le\; 0.$$

Let $K_\pi^{(\Lambda)}(x)$ denote the component of $\partial W'(x)/\partial\pi_e^p$ driven by Λ_π alone. It satisfies a linear recursion and is therefore non-positive, with the uniform bound

$$\big|K_\pi^{(\Lambda)}(x)\big| \;\le\; \frac{\beta(1-\delta)}{(1+\pi_e^p)^2}\,\frac{\overline{W'}}{1-\bar{\Lambda}} \;=\; O(1-\delta).$$

Its contribution to $\partial R/\partial \pi_e^p$ is

$$\mathcal{D}_\pi^{(\Lambda)} = -\beta\alpha_u \int_{x^r}^{\infty} K_\pi^{(\Lambda)}(k) S(k)\, dk + \beta(1-\delta)\alpha_e \int_{y^r}^{\infty} K_\pi^{(\Lambda)}(k) S(k)\, dk - \beta(1-\delta)\int_{y^r}^{x^r} K_\pi^{(\Lambda)}(k)\, dk, \quad \text{(D.11)}$$

and it satisfies $\mathcal{D}_\pi^{(\Lambda)} \geq 0$, and is of order $O(1-\delta)$, with the terms over $[y^r, x^r]$ further of order $O((1-\delta)^2)$. Hence, when the expected job horizon is short ($(1-\delta) \ll 1$), this block is negligible. See Online Appendix OE.5.2.2 for derivations.

$\mathcal{B}_\pi$**: Moving boundary** y^r**.** Because $y^r = x^r/(1+\pi_e^p)$, $\frac{\partial y^r}{\partial \pi_e^p} = -\frac{y^r}{1+\pi_e^p}$. Using $H'(z) = -W'(z)S(z)$,

$$\mathcal{B}_\pi = \beta(1-\delta)\,\frac{\partial y^r}{\partial \pi_e^p}\left[\alpha_e \frac{\partial H(y^r)}{\partial y^r} + W'(y^r)\right] = -\,\beta(1-\delta)\,\frac{y^r}{1+\pi_e^p}\,W'(y^r)\left[1-\alpha_e S(y^r)\right] \;<\; 0,$$

so this channel reduces R and raises x^r. Intuitively, higher expected inflation lowers next periods employed cutoff, expanding the set of offers considered while employed. However, since $|\mathcal{B}_\pi| = O(1-\delta)$, the effect is negligible when the expected job horizon is short. See Online Appendix OE.5.2.2 for derivations.

$\mathcal{A}_\pi$**: Within-kernel argument re-scaling.** By the chain rule,

$$K_\pi^{(\text{arg})}(x) \;:=\; \frac{\partial W'(x)}{\partial \pi_e^p}\Big|_{\text{via } y} \;=\; \mathcal{K}_y(x)\cdot \frac{\partial}{\partial \pi_e^p}\Big(\frac{x}{1+\pi_e^p}\Big) \;=\; -\frac{x}{(1+\pi_e^p)^2}\,\mathcal{K}_y(x) \;\geq\; 0,$$

since $x > 0$ and $\mathcal{K}_y(x) \;:=\; \frac{\partial W'(x)}{\partial y}\Big|_{y=\frac{x}{1+\pi_e^p}} \;\leq\; 0.$

Its contribution to $\partial R/\partial \pi_e^p$ is

$$\mathcal{A}_\pi = \; -\beta\alpha_u \int_{x^r}^{\infty} K_\pi^{(\text{arg})}(k)\, S(k)\, dk \;+\; \beta(1-\delta)\alpha_e \int_{y^r}^{\infty} K_\pi^{(\text{arg})}(k)\, S(k)\, dk \;-\; \beta(1-\delta)\int_{y^r}^{x^r} K_\pi^{(\text{arg})}(k)\, dk, \quad \text{(D.12)}$$

which admits the bound (See Online Appendix OE.5.2.2 for derivations)

$$\mathcal{A}_\pi \;\leq\; \beta\Big[-\big(\alpha_u - (1-\delta)\alpha_e\big)A_x \;+\; (1-\delta)(\alpha_e - 1)\,B\Big].$$

where $A_x \;:=\; \int_{x^r}^{\infty} K_\pi^{(\text{arg})}(k)S(k)\,dk \;\geq 0$, $B \;:=\; \int_{y^r}^{x^r} K_\pi^{(\text{arg})}(k)\,dk \;\geq 0$, with $A_x \;\leq\; B$. If the ladder gap $\alpha_g \;:=\; \alpha_u - (1-\delta)\alpha_e \;\geq\; 0$ (the MTurk-relevant case), it follows that $\mathcal{A}_\pi \;\leq\; 0$. Hence, the argument-rescaling channel reduces R and raises the reservation wage. Moreover,

$$\mathcal{A}_\pi = O\left((1-\delta)(x^r - y^r)\right) = O\left((1-\delta)\frac{\pi_e^p}{1+\pi_e^p}x^r\right),$$

so at monthly horizons with short job durations, this block is second order and typically negligible relative to the belief-driven effects (See Online Appendix OE.5.2.2). □