Sticky Wages on the Layoff Margin

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Contributions

1. We design and field an innovative longitudinal survey of unemployment insurance recipients.
2. We use our survey data to assess:
   a. **Today:** Whether wages are sticky on the separation margin and, if so, why.
   b. **Today:** Workers' willingness to accept hypothetical wage cuts to save their lost jobs
   c. **Future paper:** Dynamics of unemployed workers' reservation wages

Relevance

- Wage rigidities play a key role in Keynesian theories of economic fluctuations and stabilization policy
- What role for downward wage stickiness in privately inefficient separations?
- Certain types of displaced workers experience large, persistent earnings losses
  - Could greater wage flexibility on the separation margin reduce job losses and mitigate earnings losses?
- We have little direct evidence on wage flexibility/rigidity at the point of separation.

Four New Facts

1. Among UI benefit claimants, worker-employer discussions about cuts in pay, benefits, or hours in lieu of layoff are exceedingly rare
   a. Moreover, pay cuts don't occur in the months leading up to layoff
2. But many job losers would accept (large) pay cuts to save their lost jobs
   a. Most UI recipients express willingness to accept wages cuts of 5-10 percent
   b. About one-third are willing to take a 25 percent cut
3. Workers offer several reasons for why such discussions don't happen:
   a. 36 percent say pay cut would not have saved their jobs
   b. 16 percent say pay cuts would undermine morale or lead the best workers to quit
   c. Nearly 40 percent don't know
   d. For union jobs: 45 percent say wage cut would violate the union contract
4. Workers reject hypothetical pay cuts for several reasons
   a. 45 percent say they have better outside options
   b. 35 percent regard pay cuts as insulting
   c. 21 percent prefer unemployment to working at the lower pay level

Related Literature

- We draw inspiration from previous employer surveys that inquire about wage stickiness on the layoff margin
  - Kaufman (1984), Blinder and Choi (1990), Agell and Lundborg (1995), Campbell and Kamlani (1997) and Bewley (1999)
- But our worker-side survey offers distinct insights and advantages:

1. Document a disjunction between new UI recipients' willingness to accept wage cuts to save jobs and employers' reluctance to even broach the subject
2. Explore worker perceptions about why employers don't offer pay cuts to save jobs
3. Precisely define sample frame; systematic, institutionalized approach

Sample Design, 1

- Sample frame: new UI recipients in the state of Illinois between September 10 and November 24, 2018
  - Tight labor market: national unemployment rate was 3.7% in September, 2018; relatively stable at or below 4%.
  - IL had slightly higher unemployment rate, but also stable about 4.3%.
  - Low inflation: PCE12-month change percent change at or below 2 percent
- Respondents received a $10 Amazon gift card for taking the survey
- About 2,800 workers completed the entry survey
  - Includes questions about compensation adjustments prior to layoff
- Individuals participated in up to two follow-up surveys at randomized intervals
- A total of about 5,500 interviews were completed

Sample Design, 2

- Workers file for UI in the week after job loss
- After a “waiting week” and 1st week of benefit eligibility, they receive their first UI payment in week 2-4 after job loss
  - Also receive entry survey invitation if had email address on file (~88%)
  - Encouraged to respond within two weeks
- Two follow-ups at randomized intervals
  - First follow-up invitation sent 2, 4, 8, or 12 weeks after completion of entry survey
  - Second follow-up invitation sent 4, 8, 12, or 16 weeks after completion of entry survey

Response Rates

		E-mailed invitations	Incomplete responses	Complete responses	Click thru rate	Completion rate
Panel A. Entry survey						
		30,571	2,421	2,777	17.0%	9.1%
Ppl. opting out of future surveys	197					
Panel B. 1st follow-up survey						
	Cohort					
	Week 2	641		412		64.3%
	Week 4	654		407		62.2%
	Week 8	644		356		55.3%
	Week 12	641		329		51.3%
	Total	2,580	84	1,504	61.6%	58.3%
Panel C. 2nd follow-up survey						
	Cohort					
	Week 4	376		321		85.4%
	Week 8	376		318		84.6%
	Week 12	375		287		76.5%
	Week 16	376		277		73.7%
	Total	1,503	15	1,203	81.0%	80.0%

Survey Validation

1. Workers willing to take larger pay cuts on their lost job experience larger pay cuts upon re-employment
2. Workers willing to take larger pay cuts on their lost job report lower initial reservation wages
3. Workers with lower initial reservation wages experience lower re-employment wages

Validates:

1. Respondents have a sense of their labor market (LM) opportunities
2. They adjust their reservation wages to those LM opportunities
3. They accurately report reservation wages

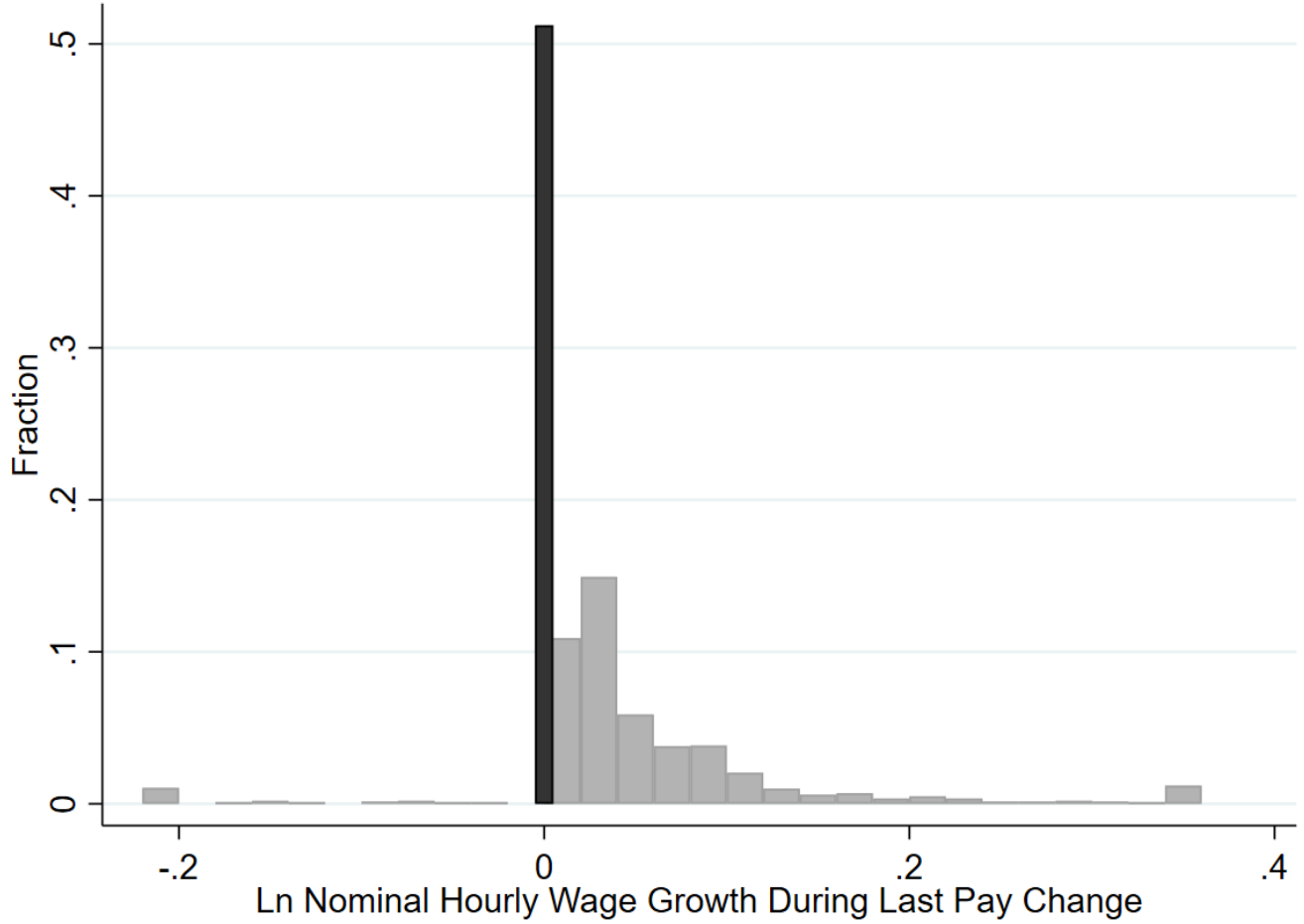
Fact #1: Discussions about compensation prior to layoff are rare

Qn: "Before your employer let you go, was there any discussion about possible cuts to pay, benefits or hours to save your job?"

	Mean	SE	N
Overall	2.8%	0.3%	2,580
Industry			
Leisure and hospitality	3.7%	1.5%	163
Manufacturing	3.7%	0.8%	518
Prof, tech, buss services	1.6%	0.7%	313
Retail & wholesale trade	4.2%	1.3%	239
Union job			
No	2.8%	0.4%	2,082
Yes	2.6%	0.8%	383
Tenure			
0-6mos	2.5%	0.7%	473
More than 5yrs	3.0%	0.6%	703
Firm size			
1-49	4.1%	0.7%	931
50-499	2.0%	0.5%	850
500+	2.4%	0.6%	655

Compensation adjustments do not occur leading up to layoffs

Qns: “When was the most recent change to your pay or benefits on your lost job?” and “How much did your salary or hourly wage change?”



Note: The spike at zero includes individuals who had no change in pay or benefits during their lost job. Non-zero bars condition on changes in pay because of changes in salary or hourly wages. Bins are of width 0.02. We drop observations for which the hourly or reservation wages are below $2 or above $200. We then winsorize log wage change values at the 1st and 99th percentiles

Selection

- Yes, if there are persons who saved their jobs by accepting cuts in wages, benefits or hours, they will not appear in our survey population
- Highly relevant sample: we are interested in the potential for greater wage flexibility to reduce layoffs
- The rarity of pre-layoff discussions about wage cuts in our sample suggests that such discussions are rare more broadly
  - Results by firm size and union status suggest that this selection issue may not be important
- Also, as the next slide reports, we can say that a large fraction of persons in our sample would have accepted wage cuts, often large ones, to save their jobs

Fact #2: Most workers are willing to take pay cuts to save their lost jobs. Many workers are willing to take large ones.

For permanent layoffs: "Would you have been willing to stay at your last job for another 12 months at a pay cut of X percent?"

For temporary layoffs: "Suppose your employer offered a temporary pay cut of X percent as an alternative to the temporary layoff. Would you have been willing to accept the temporary pay cut to avoid the layoff?"

Size of proposed pay cut	5%	10%	15%	20%	25%
Permanent layoff	60.4%	52.2%	43.7%	38.6%	32.3%
	(2.4%)	(2.5%)	(2.4%)	(2.4%)	(2.3%)
	409	416	416	420	424
Temporary layoff	53.9%	42.9%	35.8%	34.3%	37.4%
	(5.0%)	(5.0%)	(4.9%)	(4.7%)	(4.9%)
	102	98	95	102	99

Note: Standard errors and the number of observations appear beneath the percent of workers for each response.

Fact #3: Workers report several reasons why they think compensation discussions prior to layoff never occurred

Qn: "If you had to guess, why do you think your employer did not discuss any kind of cuts in pay, benefits or hours?"

	(1) It would lead the best workers to quit	(2) It would undermine morale	(3) It would not have prevented my layoff	(4) It's not allowed under union contract*	(5) Don't know	(6) Other
Davis and Krolikowski						
	8.4%	7.9%	36.3%	44.5%	38.9%	16.3%
	(0.6%)	(0.5%)	(1.0%)	(2.6%)	(1.0%)	(0.7%)
	2,509	2,509	2,509	373	2,509	2,509
Bewley (1999)						
	11.9%	68.9%		2.6%		
	18	104		4		
Campbell and Kamlani: percentage of firms ranking each statement as most important						
Skilled white-collar	40.8%	10.3%		4.7%		
Skilled blue-collar	26.6%	15.4%		22.9%		
Less skilled	34.6%	15.4%		13.2%		

~350 firms interviewed between 1992-94 in New Haven area. Snowball sampling and cold calling.

~185 firms interviewed between 1993-94 from Business Week 1000, Colgate alumni, snowball sampling.

*Column (4) conditions on jobs that are covered by union contracts (15% of sample).

Note: Standard errors and the number of observations appear beneath the percent of workers for each response. Respondents could select all that apply so the rows do not sum to 100 percent.

Fact #4: Workers reject hypothetical pay cuts for several reasons

For permanent layoffs: "What are the reasons why you would not accept a pay cut of X percent to avoid being laid off?"

For temporary layoffs: "What are the reasons why you would not accept a temporary pay cut of X percent to avoid being temporarily laid off?"

	Can find another job that pays more	The temporary cut might become a permanent one (temporary layoffs only)	The pay cut would feel like an insult	I prefer not working over working at a lower pay level	Other
Overall					
	44.6 (1.3)		34.6 (1.3)	21.0 (1.1)	25.4 (1.2)
	1,431		1,431	1,431	1,431
	26.9 (0.9)		19.2 (0.8)	11.6 (0.6)	14.1 (0.7)
Temporary layoff					
	25.9 (2.6)	42.7 (2.9)	24.6 (2.5)	22.9 (2.5)	20.1 (2.3)
	293	293	293	293	293
	15.3 (1.6)	25.2 (2.0)	14.5 (1.6)	13.5 (1.5)	11.9 (1.5)

Note: First entry in each cell is the percent of responses among individuals not willing to accept a pay cut with standard errors in parenthesis. The second entry is the corresponding number of observations. The third entry is the percent of responses among all individuals in our sample with standard error in parenthesis. Respondents could select multiple options. The response option in column (2) was presented only to persons on temporary layoff.

Summary

- Design and field an innovative survey in the state of IL

Results:

1. Prior to layoff, discussions about adjustments to compensation are rare
2. Job losers are willing to take pay cuts, often large ones, to remain at their job
3. Workers offer several explanations for why discussions never occurred
4. Workers reject hypothetical pay cuts for several reasons

Directions For the Future

- Exploit the longitudinal aspect of our sample to study the impact of unemployment duration on reservation wages.
- Implement worker survey indefinitely and expand to more states
  - We would like to see this type of survey in place when the next recession hits
- Complementary surveys of employers

APPENDIX SLIDES

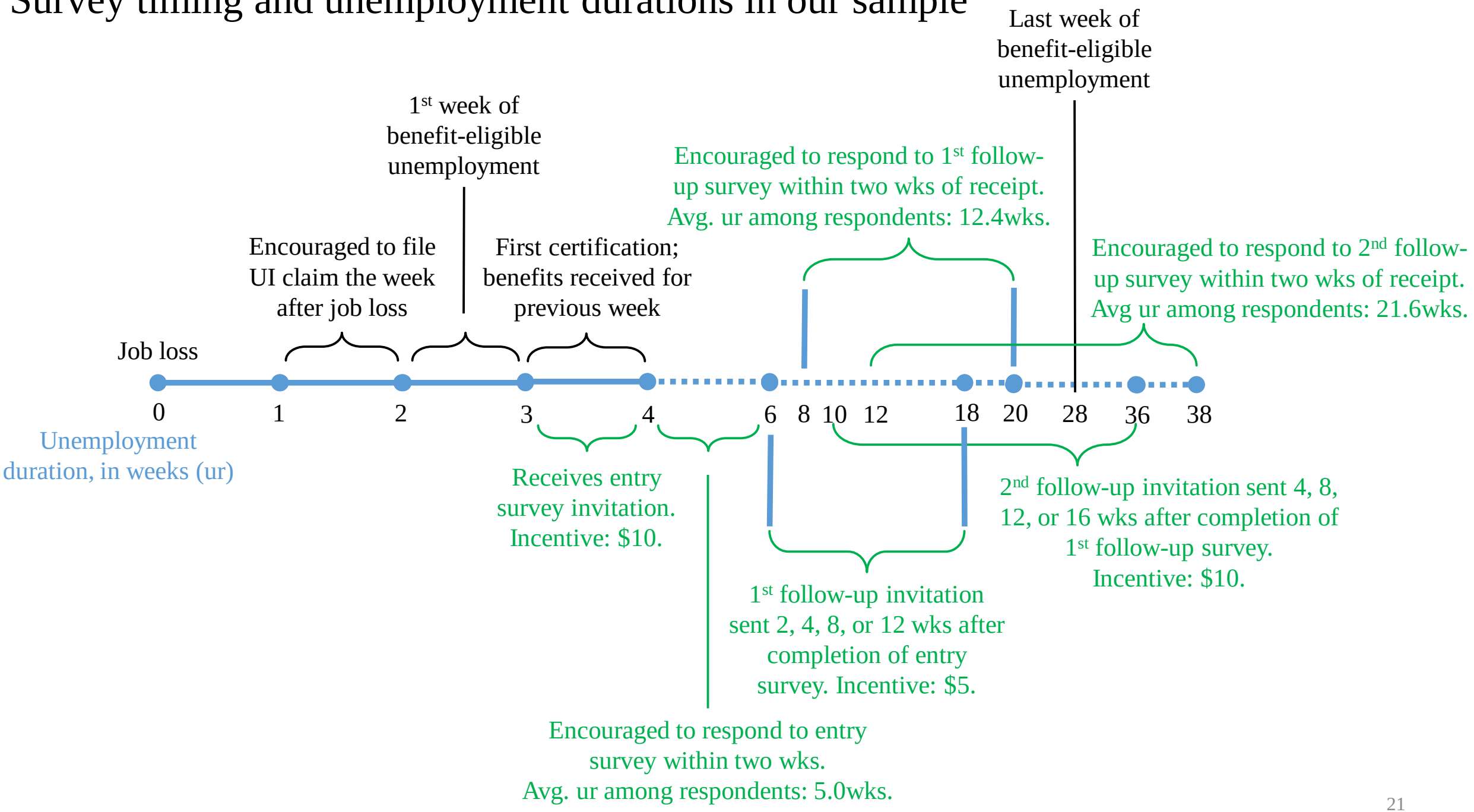
Related Literature

1. Downward nominal wage rigidity (DNWR) using micro data
   - Survey-based evidence typically suggests substantial DNWR
     - Lebow et al. (1995), Kahn (1997), Card & Hyslop (1997), Lebow et al. (1999), Altonji & Devereux (2000), Dickens et al. (2006), Barwell and Schweitzer (2007), Kaur (2019); Blinder & Choi (1990), Baker, Gibbs, and Holmstrom (1994), McLaughlin (1994), Smith (2000), Fallick et al. (2016),
   - Payroll-based evidence suggests less DNWR and that wage cuts are quite common
     - Nickell and Quintini (2003), Elsby et al. (2016), Grigsby et al. (2018), Jardim et al. (2018), Kurmann and McEntarfer (2018), Erlich & Montes (2019)
2. Reasons for DNWR:
   - Fairness and productivity (effort): Blinder and Choi (1990), Campbell & Kamlani (1997), Bewley (1999), Kaur (2019)
   - Internal pay structure, within-firm equity concerns: Baker et al. (1988), Rudanko (2019)
   - Adverse selection in quits: Campbell & Kamlani (1997)
   - Won't save jobs anyway: Bewley (1999)
3. New Keynesian models with wage rigidities
   - Keynes (1936), Erceg et al. (2000), Smets & Wouters (2003, 2007), Woodford (2003), Christiano et al. (2005), Gali (2008, 2011), Kaplan et al. (2018)
   - And with frictional unemployment: Blanchard & Gali (2010), Christiano et al. (2010), Gali (2010)
4. Macroeconomic frameworks of the labor market
   - Efficient separations -- Current wage is part of stream of payments: Becker (1962), Barro (1977), Malcomson (1997), Jaeger et al. (2019)
   - Wage rigidity upon hiring with efficient separations: Shimer (2004), Hall (2005), Pissarides (2009), Rogerson and Shimer (2011)
   - Cyclicality of aggregate wages: Bils (1985), Solon et al. (1994), Kudlyak (2014), Basu and House (2016)
   - The effects of measured DWNR on the aggregate labor market are still debated
     - Some say large: Akerlof et al. (1996), Kurmann and McEntarfer (2018), Ehrlich & Montes (2019)
     - Some say small: Nickell and Quintini (2003), Elsby (2009), Fallick et al. (2016)
5. Earnings losses following worker displacement
   - Jacobson et al. (1993), Couch and Placzek (2010), von Wachter et al. (2009), Davis and von Wachter (2011)
6. Reservation wages over the unemployment spell
   - Most closely related to Krueger and Mueller (2016); cross-sectional studies (Feldstein & Poterba, 1984; DellaVigna and Paserman, 2005)

Summary Statistics

Statistic	Unweighted	CPS (US)
No. of observations	2,580	3,820
Previous employment data		
Previous industry (percent)		
Leisure and hospitality	6.7	13.4
Manufacturing	21.2	9.4
Prof, tech, or business services	12.8	14.5
Retail & wholesale trade	9.8	11.9
Demographic data (% of total)		
Female	52.3	43.1
Selected age groups		
18-24	6.2	18.4
25-34	26.1	23.9
45-54	22.4	17.1
Race		
White	70.2	72.3
Black	17.8	20.2
Ethnicity		
Hispanic	9.5	23.8
Education		
High school grad	13.8	43
Technical training/Some college	28.5	25.8
Associate or bachelor's degree	41.3	22.8
Graduate degree or higher	16.5	8.4
Avg. unemployment duration, in weeks	5.3	2.5

Survey timing and unemployment durations in our sample



Workers who were willing to take larger pay cuts on their lost jobs report lower initial reservation wages

Reservation wage question: “Suppose someone offered you a job today that is suitable in terms of hours, skills, responsibilities and non-wage benefits. What is the lowest wage or salary, before taxes and deductions, you would accept?”

Size of accepted wage cut	Mean of ln reservation wage ratio	N
5%	-0.10	235
10%	-0.09	213
15%	-0.13	177
20%	-0.15	155
25%	-0.16	132
p-value of equality test	0.017	

Note: This table considers persons who respond ``Yes" to: ``Would you have been willing to stay at your last job for another 12 months at a pay cut of X percent?" The middle column reports the mean ratio of the reported reservation wage to the wage on the lost job, using data from the Entry Survey. We drop observations for which the hourly wage on the lost job or the reservation wage is below $2 or above $200. We then trim reservation wage ratios that are below 1/6 and above 3.

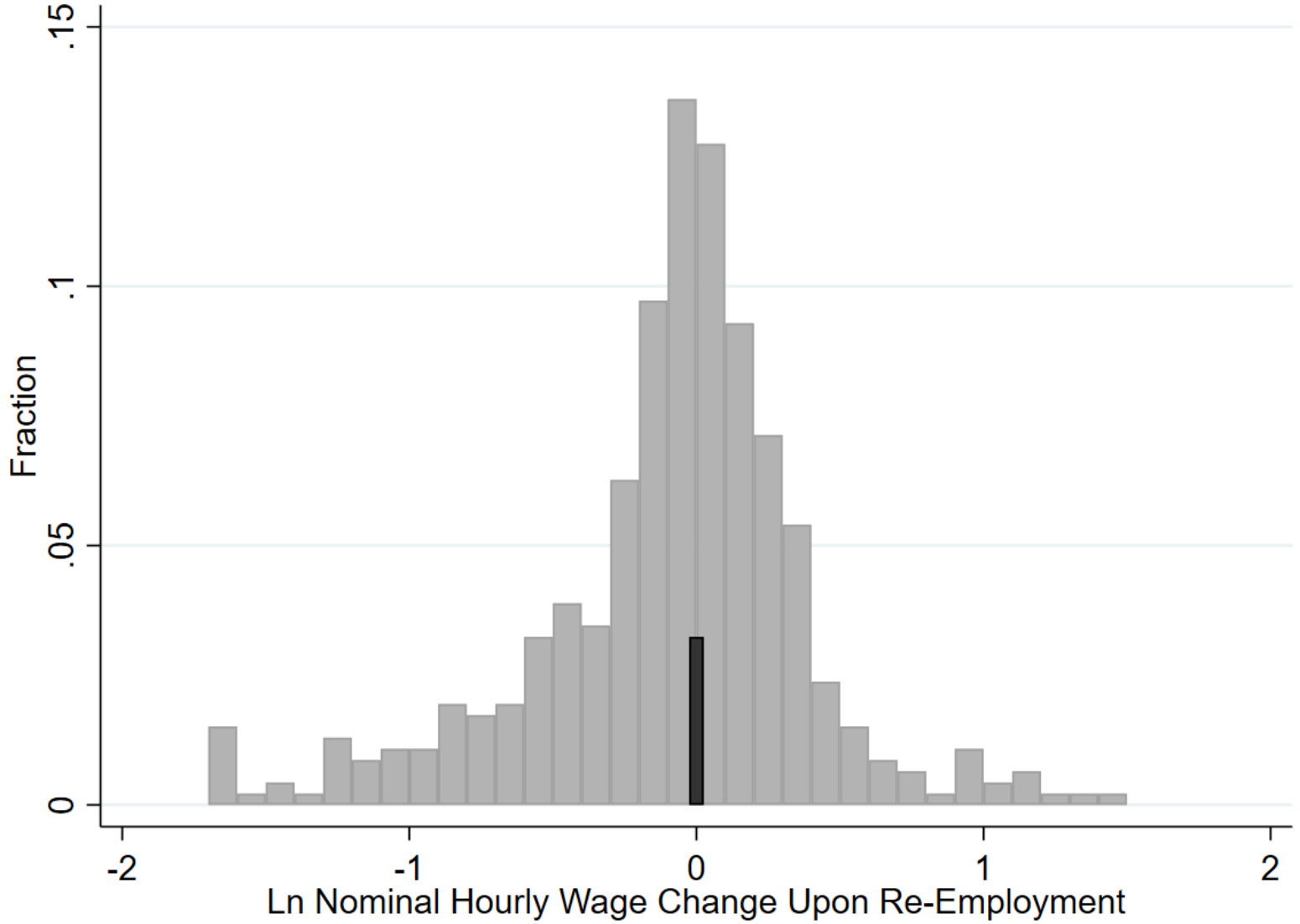
Wages at re-employment compared to wages before job loss

	Wage change	SE	N
Overall			
Mean	-0.071	0.024	463
Median	-0.018	0.016	463
Tenure			
0-6mos	0.037	0.068	83
6mos-5yrs	-0.045	0.029	251
> 5yrs	-0.190	0.048	129

Ln hourly wage change upon re-employment

Note: We drop observations for which the hourly wage on the lost job or the new job is below $2 and above $200. We then winsorize log wage change values at the 1st and 99th percentiles. Only permanently laid off workers included. SE for median is computed using 1,000 bootstrap replications.

Wages at re-employment compared to wages before job loss



Note: The spike at zero includes individuals who had no change in their hourly wage upon re-employment. Bins are of width 0.1. We drop observations for which the hourly wage on the lost job or the new job is below $2 and above $200. We then winsorize log wage change values at the 1st and 99th percentiles. Only permanently laid off workers included.

Workers willing to take larger pay cuts on lost job experience larger pay cuts upon re-employment

Accept 5% wage cut	-0.041	-0.032
	(0.076)	(0.079)
Accept 10%-15% wage cut	-0.080	-0.068
	(0.065)	(0.067)
Accept 20%-25% wage cut	-0.17	-0.17
	(0.074)**	(0.078)**
p-value all coeffs equal 0	0.13	0.19
Other controls		x
Mean of dependent variable	-0.077	-0.077
Std. dev of dependent variable	0.518	0.518
Observations	456	456
R2	0.01	0.13

Workers with lower initial reservation wages experience lower re-employment wages

Note: We drop observations for which the hourly wage is below $2 and above $200. We then winsorize wage changes upon re-employment that are below and above the 1st and 99th percentiles, respectively. We also trim reservation wage ratios that are below 1/6 and above 3. Only permanently laid off workers included.