Bridging Employment for Older Workers and the Role of Flexible Scheduling Arrangements

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Acknowledgements

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Abstract

We conduct a series of stated preference experiments to determine the willingness of hiring and human resource managers to pay for certain job attributes. A cross section of U.S. hiring managers were given experimental vignettes about an existing employee or potential new hire. They were told that the candidate was indifferent to the job attributes, and they should select the job offer that was best for the firm. Job attributes consisted of measures of paid time off, paid leave, flexible work schedules, telecommuting opportunities, mandated weekends, and shift work. For each vignette we randomly generated a wage offer. Vignettes also randomly assigned a gendered pronoun (he/she) to the job candidate, as well as years-of-experience profile (two, 10, and 35 years). We find that firms are willing to pay a significant wage premium to avoid offering workers flexible work schedules, holding total hours worked fixed. Compared to no flexibility, employers were willing to pay 19% more to avoid workers having the choice between fixed schedules, 33% more to avoid "flexibility within limits" and 62% more to avoid "complete flexibility." There is some evidence that employers are willing to pay more to avoid offering schedule flexibility within limits to workers who have more years of work experience. However, given the sample size restrictions, we fail to reject the null hypothesis that the results are the same for all experience profiles.

Citation

Authors' acknowledgements

Introduction

There is widespread evidence that schedule flexibility is highly valued by employees. Maestas et al. (2018) find that workers perceive setting their own schedule as an 8.9% wage increase (relative to the firm setting the schedule with no opportunity to change). Mas and Pallais (2017) estimate that workers are willing to accept 20% lower wages on average to avoid having their employer set their schedule on short notice. Other researchers have found that workers who have control over their work schedule experience better mental and physical health (Hurtado et al. 2015; Jang, Park and Zippay 2011; Caruso and Waters 2008), lower levels of stress (Fenwick and Tausig 2001), higher job and life satisfaction (Lyness et al. 2012, Bai et al. 2021).

Despite worker preferences and positive worker outcomes arising from schedule flexibility, firms are still reluctant to provide more flexibility — whether that is starting and stopping times for work, number of hours, amount of paid time off, or paid leave. This was especially evident during the COVID-19 pandemic. Essential workers — defined as a broad swath of the American workforce including doctors, nurses, and pharmacists as well as grocery store clerks — were often required to conduct in-person tasks that could either not be done remotely, were too costly to be conducted remotely, or could not be done sufficiently well except when performed in-person. Often these workers were provided limited or no schedule flexibility and had to work in shifts.

A large economics literature has evaluated the tradeoffs that workers are willing to make between working conditions and wages (e.g., Brown 1980, Lamadon et al. 2022), and estimated compensating differentials for disamenities such as dangerous workplaces (Hersch 1998, Viscusi 2010) and shift work (Kostiuk 1990). Worker

responsiveness to working conditions is only half of the labor market equation, however. The literature studying labor supply and demand often focuses on worker-specific characteristics and behavioral responses. There is substantially less work studying the employer side of the equation to understand firm-level incentives and capabilities. Yet, the cost to firms is an important component of understanding the provision of nonwage amenities in the labor market (Rosen 1986).

Firms are under constant pressure to maintain costs and competitively price their goods and services, and offering schedule flexibility can be quite costly. This is especially true if offering schedule flexibility requires hiring and training additional staff. In many cases, it may be difficult to hire and train staff to work undesirable shifts or short hours blocks. Workers may not want to commit to work an early morning or late-night shift given family and child raising duties. Consequently, employers may have to pay a shift premium to staff their business during those hours. Firms also understand that there can be firm-side benefits in offering schedule flexibility; it may allow the firm to achieve better employment matches and raise worker productivity. However, as we discuss later when we introduce the experimental vignettes. we explicitly shut down this avenue of improved job match and productivity in order to focus on the monetary value of the amenity.

To understand whether and how firms value offering scheduling flexibility, we conducted a series of stated-preferences experiments on more than 700 employers who had hiring experience, experience managing worker hours or schedules, or were responsible for negotiating wages or making termination decisions. Collectively, we refer to this group as "hiring managers." Each hiring manager responded to five

vignettes where they were told the candidate's gender and experience level, two different wage offers (drawn at random from a distribution centered on the typical wage for this type of worker at the firm), and two different working conditions, varying in the same dimension such as hours flexibility, shift work, weekend work, telecommuting opportunities, or varying levels of paid time off, for example. A hiring manager might see a vignette where Job A offers the worker $17.50 per hour and a limited choice of work schedules while Job B offers $21 per hour, but hours are set by the employer with no opportunity to change them. We offer more detailed discussion and screen shots of the survey in the paper's data section.

We find that hiring managers were willing to pay 19% more to avoid offering a choice between a set of fixed schedules (although this result was not statistically significant at conventional levels), a 33% wage premium to avoid schedule flexibility within limits (statistically significant at the 10% level), and a 62% wage premium to avoid complete schedule flexibility for the worker (statistically significant at the 5% level). Additionally, hiring managers were willing to pay a 33% premium to avoid giving workers 12 weeks of paid leave (significant at the 1% level). Many of the other vignettes related to paid time off, shift work, telecommuting, and weekend work were statistically insignificant.

Finally, in comparing workers with more or less experience, we find suggestive but inconclusive evidence that hiring managers would pay more to avoid schedule flexibility for workers with more experience than they would pay for workers with less experience. For example, hiring managers on average are willing to pay a 24% premium to avoid flexibility within limits in favor of no flexibility for the worker if the

worker has two or 10 years of experience. When the worker had 35 years of experience the hiring manager was willing to pay nearly 34% more. However, these estimates were not statistically different from one another. We anticipate that further data collection may provide enough statistical power to determine if there are real differences by years of experience.

Data

Our data were collected from Prolific respondents. Prolific is a web-based survey respondent pool that allows researchers to host a web-based survey, select a target population, and an hourly wage. Once this set up is complete, Prolific sends the email invitation to the survey takers, researchers host surveys, and all data are collected on researcher servers. The survey data can be linked by respondents' unique IDs to their demographic data held by Prolific. In total, we had 708 respondents complete our survey.

The advantage of using Prolific is the large number of filters that can be applied to their respondent pool. In this study, we filtered on age so that only prime age (25 to 54) respondents were included. Additionally, we filtered by job duties to include only those who had either hiring experience or people management experience. In addition to selecting on this filter, we also included a screener question, where the respondent had to answer affirmatively that they did one of the tasks listed in Table 1 below. As you can see, only 4% of the sample did not do any of these tasks. Respondents who answered "none of the above" were not included in the study. We feel confident that the respondents taking the survey were well equipped to answer hiring and compensation questions, with 78% responsible for hiring new employees and 88% responsible for

managing employees. We also note that our sample skews considerably more male than female, however, this is in keeping with managerial roles at firms being historically more accessible to men than women. In our sample of hiring managers, 60% identified as male, 39% female, and 1% other. This is close to the percentage reported by the GAO (2022) which was 42% of managers being women. However earlier Bureau of Labor Statistics analysis of the Current Populations survey reports that more than 74% of HR managers are women.[1] We note that hiring managers and HR managers may be very different with hiring managers having many managerial duties, hiring being only one.

Table 1: Job responsibilities of Prolific respondents

Hiring New Employees	77.7%
Negotiating Wages and Benefits of Potential or New Hires	36.0%
Managing Employees	87.6%
Making Promotion Decisions	50.8%
Making Termination Decisions	51.1%
Making Decisions about Changes in Benefits and Wages (Current Employees)	26.2%
Accommodating requests for change in work schedules	65.6%
Retention of current employees	60.3%
Not responsible for any of these	4.0%

Notes: Sample of 706 respondents from Prolific. Survey fielded December 14, 2022. Respondents could select multiple options.

Our goal was to get a sample of workers with hiring experience, not a random probability-based sample. Since our experiment is randomized (what type of job amenity was on offer coupled with a random wage draw), we do not need a probability-

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[1] See https://www.bls.gov/careeroutlook/2017/data-on-display/women-managers.htm Accessed on January 14, 2023.

based sample for internal validity. However, by having a sample that is not fully representative of all industries, this study will lack external validity. That said, we have reasonable coverage for most of the industry aggregates. Table 2 displays the respondent's industry of employment. We have good coverage for manufacturing, transportation, retail trade, FIRE (finance, insurance, and real estate), services, and public administration. The remaining industries have less than 5% coverage, which puts their actual counts below 35 respondents.

Table 2: Industry aggregates for respondents' employment

Agriculture, Forestry, and Fishing	1.3%
Mining	0.3%
Construction	4.3%
Manufacturing	8.9%
Transportation, Communications, Electric, Gas, and Sanitary Services	5.9%
Wholesale Trade	2.2%
Retail Trade	9.6%
Finance, Insurance, and Real Estate	11.2%
Services	45.5%
Public Administration	10.9%

Notes: Sample of 706 respondents from Prolific. Survey fielded December 14, 2022.

Respondents were then asked for information about either their most recent hire or the most common occupation in their firm. This question was determined based on whether they had hiring experience or experience managing current employees. If they had both, they were randomized into "new hire" or "most common occupation." The survey asked them some basic questions about their firm and about the compensation and working conditions of the worker in question. Table 3 provides summary statistics about the workers at the firms of these hiring managers.

We find that the average hourly wage is $24.93 for 37.6 hours of work, implying average weekly earnings of $937 or annual earnings of $48,743. The average hourly earnings in the private sector in December 2022 was $32.82.[2] Because our sample includes so many workers in the service sector, it is important to keep in mind the heterogeneity of those sectors. According to the U.S. Bureau of Labor Statistics (BLS), professional and business services averaged an hourly wage of $39.52, education and health services $32.27, and leisure and hospitality services $20.64. Our sample contains a large number of observations from the service sector, but we have no detail on which industry within the service sector they are employed. Even after creating weighted averages of the BLS data, we find that our hourly earnings measure is lower than the U.S. economy in December 2022. We should also note that these wage reports are not on the respondents themselves (who are all hiring managers), but on the people that they hire and manage at their respective firms. Perhaps most important, our focus on new hires likely leads to depressed wages since there is typically an experience premium.

Most workers have no flexibility in their schedule, in that the firm sets workers schedules with limited (or no) possibility of changes. Taken together two-thirds (65.6%) of workers' schedules were either completely set by the firm or were offered a set of fixed schedules. Only 6% of workers were able to completely determine their own schedules. Just under half (47%) of workers have opportunities to work remotely at

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[2] See https://www.bls.gov/charts/employment-situation/employment-and-average-hourly-earnings-by-industry-bubble.htm Accessed January 14, 2023.

least one day per week. This contrasts with the American Opportunity Survey

(McKinsey & Company using the Ipsos panel)[3] that found 58% of American workers had

the opportunity to work from home at least one day per week. This is 11 percentage

points more than we found. Once again, this may be due to the nature of service work

and the large proportion of service industry hiring managers in our sample. On average

workers received 13.9 days of paid time off from work, and 24% of workers were

allowed to take paid time off "as needed." Slightly more than 65% of workers get some

paid family leave and those workers get, on average, 4.8 weeks. Perhaps owing to the

overrepresentation of the service sector in our data, a majority of workers were required

to work nights or weekends, and more than one-third (37%) were required to work shifts

with different starting times. The average firm size in our sample just over 24,000

(median 310) and 20% of workers worked part-time hours.

Job amenities

There were six different categories of workplace amenities: telecommuting,

mandated nights/weekends, paid time off, paid family leave, mandated shifts, and

schedule flexibility. Of these six, each respondent was randomly (without replacement)

asked five. These five categories also served as the five categories of vignettes

provided to that respondent. We had respondents only answer five of the six to reduce

the burden of the survey and due to concerns about respondent fatigue given that the

vignettes represent complicated questions.

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[3] See https://www.mckinsey.com/industries/real-estate/our-insights/americans-are-embracing-flexible-work-and-they-want-more-of-it Accessed January 14, 2023.

Table 3: Worker characteristics according to hiring managers

Job Basics	
Hours per Week	37.6
Days Per Week	4.8
Wage	24.93
Schedule Flexibility	
Schedules are set by company with limited (or no) possibility for	
changes	48.6%
Worker chooses from a set of fixed schedules set by company	16.9%
Worker chooses schedule within limits set by firm	28.4%
Worker completely determines their own schedule	6.1%
Opportunities to Work Remotely	47.2%
Paid Time Off	
Number of Days (if not "as needed")	13.9
Percent reporting zero (if not "as needed")	7.5%
As Needed	23.7%
Mandate Nights/Weekends/Shifts	
Required to Work at Night or on Weekends	52.1%
Required to Work Shifts with Different Starting Times	36.9%
Paid Family Leave	
Any Paid Family Leave Benefits	65.5%
Number of Weeks (conditional on any paid leave)	4.8

Notes: Sample of 706 respondents from Prolific. Survey fielded December 14, 2022.

Survey details

Figure 1 gives the pre-vignette instructions. We are careful to repeatedly note that the hiring manager should make decisions based on what is best for the firm. The respondent is told that the worker is a good match for the position, will accept either offer, and will not change employment duration. The last condition was important because, of course, higher wages and better working conditions are better for recruitment and attainment, but we wanted to shut down candidate quality and job turnover concerns. We also noted that some offers may be impossible to accommodate (remote-based Starbucks barista) and, if that occurs, they should choose a job that is feasible regardless of wage. Finally, we provided instruction that, if all else is equal between Job A and Job B, the respondent should select the job with lower wages because that is better for the firm.

Figure 1: Instructions prior to seeing first stated-preferences vignette

Beginning on the next screen, we are going to ask you to choose between two different job options for one of your current employees. They are remaining in the same job position. In the choices below, jobs are defined by a wage/salary and some characteristics. We are interested in whether Job A or Job B is best for your firm. Keep the following conditions in mind:

1. The worker is a good match for the position.
2. The worker will accept either job option, and it will not impact the future duration of their employment with you. Don't worry about what is best for the worker.
3. There may be very costly, even impossible, options for your firm to accommodate – for example some workers cannot work remotely. If Job A is not possible, choose Job B.
4. Assume that any job characteristics that are not mentioned (health insurance, retirement benefits, etc.) are the same across the two job options.
5. **Select the job offer that is in the best interests of your firm.**

For example, if Job A and Job B were identical, except that Job A paid the worker $20 per hour and Job B paid the worker $21 per hour, then Job A would be better for your firm.

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Figure 2 provides a screenshot of one of the vignettes. All of the vignettes are randomized across a number of dimensions: 1) job amenities, 2) wage offers, and the job candidate's 3) experience, 4) preferred pronoun, 5) new hire or existing employee.

Additionally, the order of which job amenity is on offer is also randomized. As you can see in the screenshot, the occupation previously filled in by the respondent is carried forward for context. In this example screenshot, we list the occupation as "insert occupation," whereas a typical respondent might have listed "Python programmer," for example. In this vignette, the worker is a current worker, who has two years of work experience and uses a "she" pronoun. We can also see that the respondent selected Job A, which paid $46.36/hour but allowed the worker to choose a schedule within limits set by the firm, and opted out of the higher paying job ($56/hour) that required the worker to choose from a fixed set of schedules. For this respondent we can infer that schedule flexibility was not a costly amenity to provide relative to the pay difference of approximately $10/hour.

Figure 2: Screenshot of schedule choice vignette
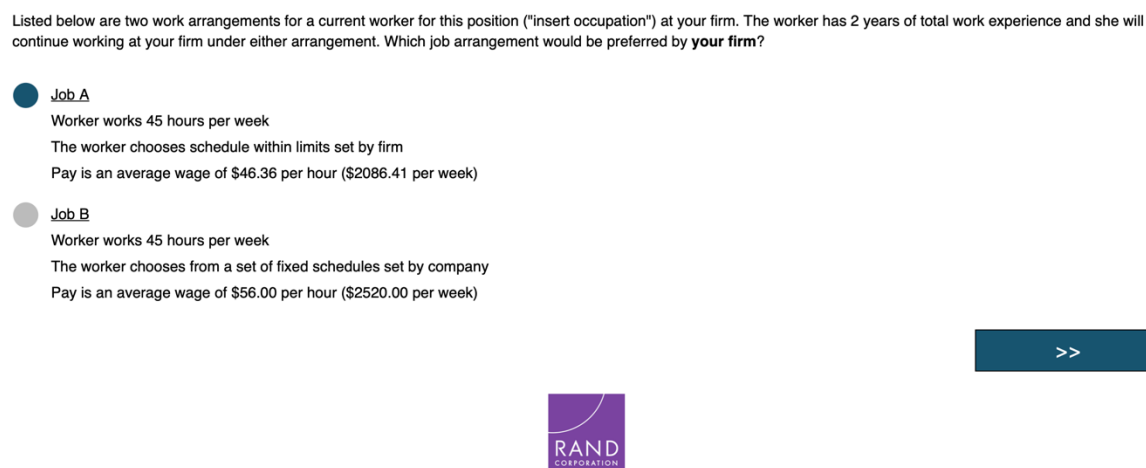
For each job choice, one of the jobs is the same job as the one that already exists at the firm given the information provided by the respondent. We tried to limit the number of choices so, in some cases, we assigned a value closest to the information provided. For example, if a respondent said that the worker has five weeks of paid

leave, we mapped that job to six weeks. However, the wage was identical to the one provided by the respondent and presented in the same units (e.g., monthly wages). We always included this baseline job to avoid creating two jobs that the respondent might consider impossible given the occupation (and, thus, they may not have a preference for either one).

The other job included one of the other options for that working condition category. When there was more than one alternative, we randomly selected the condition. The wage of this job was centered at the existing wage but multiplied by a truncated, normally-distributed draw with a variance of 0.02. We truncated to prevent wage offers 40% higher or lower than the baseline wage.

This approach could create jobs that would seem to be clearly preferred by firms — they would offer lower wages and less costly amenities. To reduce the chances of this occurring, we redrew the factor multiplying the wage when this occurred. If there were still a dominant job, we redrew again. At that point, we presented that wage regardless of whether it created a dominant job. These redraws were implemented to improve power, but we did not want to completely exclude the possibility of dominant jobs since the determination of what makes a better job required an *a priori* decision from us that might be wrong.

One of these jobs was assigned to Job A; the other was assigned to Job B. This was determined randomly.

Model and estimation

We model the firm as maximizing profits:

$$\pi_i(a_i) = R_i(a_i) - \left(w_i(a_i) + c_i(a_i)\right) + \varepsilon_i(a_i)$$

$\pi_i(a_i)$ are the marginal per-hour profits generated by worker *i* when provided with amenity level a_i, which is equal to 1 if the amenity is provided and equal to 0 otherwise. Profits related to worker *i* are a function of the marginal revenue $R_i(a_i)$ generated by the individual minus the per-hour wages $w_i(a_i)$ and costs to the firm of providing the amenities $c_i(a_i)$. All inputs to profits are a function of the amenities associated with the job. Because we do not vary total hours, we do not differentiate between fixed and per-hour costs or revenue. The firm selects amenity level a_i=1 if:

$$\pi_i(1) > \pi_i(0)$$

$$R_i(1) - \left(w_i(1) + c_i(1)\right) + \varepsilon_i(1) > R_i(0) - \left(w_i(0) + c_i(0)\right) + +\varepsilon_i(0)$$

$$R_i(1) - R_i(0) - \left(c_i(1) - c_i(0)\right) + \left(\varepsilon_i(1) - \varepsilon_i(0)\right) > \left(w_i(1) - w_i(0)\right)$$

$$\beta + \left(\varepsilon_i(1) - \varepsilon_i(0)\right) > w_i(1) - w_i(0)$$

Where β represents the change in revenue minus nonwage costs when the amenity is provided. Assuming that ε_i is an i.i.d. Extreme Value Type I random variable, we obtain the following expression for the probability that the firm selects the job with the amenity:

$$P\left(\pi_i(1) > \pi_i(0)\right) = \frac{exp\left[\beta - \left(w_i(1) - w_i(0)\right)\right]}{1 + exp\left[\beta - \left(w_i(1) - w_i(0)\right)\right]},$$

Where β represents the cost of providing the amenity (additional revenue minus additional nonwage costs) relative to an additional dollar in the hourly wage. We

estimate a logit specification in which the outcome is whether the respondent selected Job A on behalf of their firm. This choice is a function of $\left(a_i^A - a_i^B\right)$, the difference in amenity provision for Job A and Job B, and the difference in the wage. We then scale the coefficient on the amenity variable by the coefficient on the wage variable (i.e., we normalize the coefficient on the wage variable to 1) to estimate β.

These estimates refer to the cost of providing the amenity relative to each dollar paid in wages. An estimate of X implies that providing that amenity is equivalent to increasing hourly wages by 100X%. We report heteroscedasticity-robust standard errors.

Results

Full sample

We first present results for the full sample in Table 4. In the first row, we provide the firm-level costs for providing telecommuting opportunities. We estimate that offering telecommuting opportunities is equivalent to *reducing* wages by 5%, though this estimate is not statistically different than zero. A negative estimate suggests that firms, on average, benefit from providing telecommuting opportunities to their workers, potentially because it reduces the marginal costs of providing workspace.

Next, we find that never mandating that a worker must work nights/weekends is also equivalent to a wage reduction. This estimate is not statistically significant from zero, but a negative estimate here suggests that mandating weekend/night work reduces productivity or increases costs. Some firms may believe that weekend/night work hurts worker productivity.

In the third set of experiments, we studied paid time off (PTO). The baseline is no PTO. We find that firms consider 10 days of PTO equivalent to a wage reduction of 12.4%. This estimate is statistically significant from zero at the 5% level. However, 10 additional days off is equivalent to a wage increase (relative to 10 days PTO). We also estimate that "PTO as needed" is equivalent to a 20% wage reduction, suggesting that firms generate higher profits when workers have the option to take time off when needed.

However, we find that firms consider paid leave costly. Providing up to 6 weeks of paid is equivalent to a 10% wage increase (though not statistically different from zero). However, 12 weeks of paid leave costs firms, on average, 33% of wages. This estimate is statistically significant at the 1% level.

Similar to mandated weekend/nights, we estimate the mandated shift work is costly to employers. This result is again consistent with firms valuing worker productivity and protecting them from mandates that could reduce their work capacity over time.

Finally, we study schedule flexibility. Here, we find that firms really value fixed schedules with little flexibility, consistent with some jobs just not being able to provide such flexibility. We find a monotonically increasing relationship between the estimated costs and additional schedule flexibility for the worker. Complete flexibility is valued as equivalent to a 62% wage increase.

Table 4: Amenity valuations, full sample

	Wage Equivalent Estimates	Sample Size	Baseline
Telecommuting Opportunities	-0.052	506	No Telecommuting Opportunities
	(0.067)		
No Mandated Weekends/Nights	-0.023	514	Mandated Weekends/Nights
	(0.036)		
10 Days PTO	-0.124**	504	0 Days
	(0.052)		
20 Days PTO	-0.034		
	(0.049)		
PTO as needed	-0.195**		
	(0.940)		
6 Weeks Paid Leave	0.098	506	No Paid Leave
	(0.070)		
12 Weeks Paid Leave	0.333***		
	(0.107)		
No Mandated Shift Work	-0.145**	513	Mandated Shift Work
	(0.066)		
Choice Between Set of Fixed Schedules	0.186	504	No Flexibility
	(0.121)		
Flexibility Within Limits	0.331*		
	(0.175)		
Complete Flexibility	0.617**		
	(0.293)		

Notes: *10%, **5%, ***1% statistical significance. Heteroscedasticity-robust standard errors in parentheses. Sample size varies because respondents are only asked five of the seven experiments. Total sample of 706 respondents from Prolific. Survey fielded December 14, 2022. Each block represents estimates from a separate logit regression. Negative estimates suggest that, on average, a firm offering the amenity will pay less, positive estimates suggest the opposite.

By worker experience levels

Next, we stratify the results based on years of experience of the hypothetical worker. We combine those with two and 10 years of experience as "young" workers and those with 35 years of experience as "old." The results are presented in Table 5. In general, we are underpowered to detect statistical differences between the two groups since the "old" group typically has only about 190 observations. Examining just point estimate differences, some interesting patterns emerge. For amenities possibly related to worker productivity such that firms may *want* to provide the more generous amenity, the benefits of providing those amenities are higher for older workers. For example, not mandating weekends/night or shift work is valued more when provided to older workers. For the no mandated weekends/nights the point estimate is -0.02 for young and -0.03 for older workers. For no mandated shift work the effect goes from -0.085 to -0.277 when comparing young versus old. This implies that the firm has a much higher amenity valuation of not requiring older workers to work shifts. Similarly, firms value paid time off more for older workers; particularly, "paid time off as needed" for older workers is highly valuable to the firm. Of course, the firm is paying for this time off so it is unclear where the amenity valuation is derived from. It could be that firms offering PTO as needed find that their workers rarely avail themselves of it. Or it could be that in firms offering PTO as needed are selecting on particular types of workplace flexibility highly valued by the firm (perhaps limited management or other incentives that restrict worker use). On the other hand, the cost of paid leave is higher, potentially due to concerns about increased propensities of using the additional time.

Table 5: Amenity valuations for younger (two, 10 years experience) and older (35 years)

	Wage Equivalent Estimates		P-Value	Sample Size		Baseline
	Young	Old	Young = Old	Young	Old	Category
Telecommuting Opportunities	-0.026	0.800	0.845	315	191	No Telecommuting Opportunities
	(0.047)	(4.238)				
No Mandated Weekends/Nights	-0.022	-0.030	0.954	324	190	Mandated Weekends/Nights
	(0.030)	(0.138)				
10 Days PTO	-0.119	-0.543	0.701	322	182	0 Days
	(0.074)	(1.078)				
20 Days PTO	0.025	-0.373	0.616			
	(0.060)	(0.782)				
PTO as needed	-0.098	-2.286	0.559			
	(0.114)	(6.060)				
6 Weeks Paid Leave	0.064	0.249	0.578	313	193	No Paid Leave
	(0.066)	(0.325)				
12 Weeks Paid Leave	0.271***	0.548	0.571			
	(0.089)	(0.481)				
No Mandated Shift Work	-0.085*	-0.277	0.381	320	193	Mandated Shift Work
	(0.049)	(0.214)				
Choice Between Set of Fixed Schedules	0.177	0.162	0.947	313	191	No Flexibility
	(0.114)	(0.198)				
Flexibility Within Limits	0.242*	0.337	0.740			
	(0.139)	(0.252)				
Complete Flexibility	0.463**	0.450	0.971			
	(0.186)	(0.289)				

Notes: *10%, **5%, ***1% statistical significance. Heteroscedasticity-robust standard errors in parentheses. Sample size varies because respondents are only asked five of the seven experiments. Total sample of 706 respondents from Prolific. Survey fielded December 14, 2022. Each block represents estimates from a separate logit regression for each age group. P-Value represents test of equality of coefficients for Young and Old.

By sex

We also stratify the results by sex of the worker, implemented by randomly varying the pronouns in the experiment. Table 6 presents the results of the experiments by gender pronoun. Overall, the experiments are underpowered to statistically detect differences in costs between men and women. However, as with the more and less

experienced results, the results by gender pronoun are suggestive. In general, amenities that consistently provide value to the firm — no mandated shifts and paid time off — have higher valuations for men than for women. So for example, providing 10 days of paid time off to a man is valued at 17% of the wage for a man, but only 7% for a woman. Twenty days of paid time off is valued at 5% for a man and 1% for a woman. For amenities that are costly for the firm (positive values), men are generally perceived as much less costly. Firms would pay 6% of a man's wages but 13% of a woman's wages to avoid six weeks of paid leave. Similarly, a firm would pay a 37% premium for a male job candidate and 41% for a female candidate to avoid 12 weeks of paid leave.

Table 6: Firm valuation of job amenities, men and women hires

	Wage Equivalent Estimates		P-Value	Sample Size		Baseline
	Men	Women	Men = Women	Men	Women	Category
Telecommuting Opportunities	-0.006	-0.119	0.516	252	254	No Telecommuting Opportunities
	(0.059)	(0.164)				
No Mandated Weekends/Nights	0.036	-0.060	0.218	256	258	Mandated Weekends/Nights
	(0.057)	(0.054)				
10 Days PTO	-0.171*	-0.079	0.399	260	244	0 Days
	(0.090)	(0.063)				
20 Days PTO	-0.054	-0.014	0.693			
	(0.077)	(0.067)				
PTO as needed	-0.242	-0.146	0.616			
	(0.151)	(0.119)				
6 Weeks Paid Leave	0.05	0.135	0.601	248	258	No Paid Leave
	(0.133)	(0.093)				
12 Weeks Paid Leave	0.377	0.415**	0.903			
	(0.254)	(0.193)				
No Mandated Shift Work	-0.458	-0.060	0.432	260	253	Mandated Shift Work
	(0.504)	(0.039)				
Choice Between Set of Fixed Schedules	0.092	0.358	0.418	256	248	No Flexibility
	(0.124)	(0.303)				
Flexibility Within Limits	0.177	0.588	0.405			
	(0.152)	(0.470)				
Complete Flexibility	0.614*	0.708	0.89			
	(0.373)	(0.562)				

Notes: *10%, **5%, ***1% statistical significance. Heteroscedasticity-robust standard errors in parentheses. Sample size varies because respondents are only asked five of the seven experiments. Total sample of 706 respondents from Prolific. Survey fielded December 14, 2022. Each block represents estimates from a separate logit regression for men and for women. P-Value represents test of equality of coefficients for Men and Women.

Conclusion

In this research, we conducted a set of stated-preference experiments structured to provide a pair of job options, defined by monetary compensation and job characteristics, to an HR professional, hiring manager, or supervisor who makes decisions as if acting on behalf of their firm. The respondents were instructed that the worker is indifferent between the two jobs offers. Respondents then selected a job offer on behalf of their firm given the instruction that they should choose the best offer for their firm. We repeated this set of experiments five times for each respondent and randomly selected five of the six job amenities. From this information, we were able to estimate the valuations that firms would place on avoiding costly job amenities.

To ensure that experimental vignettes were as realistic as possible, we asked the respondent to tell us about a recent hire or the most common job at their firm. They provided occupation, wage, hours, days per week, and other nonwage attributes such as telecommuting, schedule flexibility, shift work, weekend/evening work, paid time off, and family leave. We used these initial values to create a baseline job for each respondent thereby ensuring that one of the two job options would always be feasible. We then generated a new job with a different amenity and wage and asked the respondent to select which job would be best for the firm. Finally, we embedded age

and gender into the experiment by using a gendered pronoun and an amount of work experience. Work experience varied from two, 10, and 35 years.

We conducted three sets of analyses: an overall analysis examining the willingness to pay to avoid a particular amenity, an analysis based on low and high levels of work experience (which we use as proxies for age), and an analysis of the male and female pronouns. We had anticipated that the firm would be willing to pay to avoid amenities that valued by workers. That is, what is good for the worker would be avoided by the firm. However, we found that there were a number of instances when the valuation was negative — that *not* providing the more worker-friendly amenity was costly for the firm. This happened when offering telecommuting, not requiring night or weekend work, when offering 10 or more days of paid time off or paid time off as needed, and not requiring shift work. Other amenities such as paid leave or hours flexibility were estimated in ways we anticipated. The firm would pay significantly to avoid providing these types of amenities. For paid leave, we found that firms would, on average, pay 33% more to avoid 12 weeks of paid leave. It is difficult to reconcile this large willingness to avoid paying for leave, while being willing to pay more in order to offer a PTO amenity. That is the firm would pay more to offer 10 days of PTO relative to no PTO.

In our second set of analyses, we estimated the difference between less and more experienced workers. The vignettes where we indicated that the worker had 35 years of experience were designed to see how hiring managers would value amenities for those workers who are near the end of their careers. We found results for schedule flexibility strongly suggestive that hiring managers would pay more to avoid making

schedule flexibility available to older workers relative younger workers. The outcomes of our paid leave experiment were similar to those of schedule flexibility — very different point estimates. We note, however, that our experiments are not sufficiently powered to determine with any reasonable confidence that the two groups are statistically different from each other.

Finally, we conducted a separate set of analyses based on the randomly assigned gender pronoun. We note that each respondent (hiring manager) was assigned a candidate gender and experience profile that did not change from vignette to vignette. That ensured that they would not see the experimental manipulation. Our results for the gender experiment were similar to those for the experience profile. When the estimated effects were positive, firms were willing to pay even more to avoid making a flexible amenity available to a female job candidate.

This research examines tradeoffs that the firms are making between monetary compensation and working conditions to understand the firms' costs or benefits of providing these job characteristics. There is likely to be considerable firm heterogeneity in costs depending on the nature of the work. If a firm is unwilling to provide flexible hours unless wages are extremely low, then this information is valuable for quantifying the underlying cost of this amenity to that firm. One consequence of this is that these experiments will have to be much better powered in order to provide conclusive evidence.

In ongoing research, we will gather more data from Prolific in order to better power the experiment. We will introduce a set of follow up questions about why respondents are willing to pay more to *offer* paid time off, but are willing to pay more to *avoid* paid leave. These results are clearly at odds with each other. Evidence in this

work suggests that firms may be willing to pay more to avoid scheduling flexibility for older and female workers. By legislating reasonable flexibility accommodations, policymakers may encourage firms to adopt the working conditions workers so clearly desire.

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