Firm Pay, Amenities, and Inequality*

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Abstract

We use discrete choice experiments embedded in a large-scale survey of German workers to estimate firm-specific amenity valuations for the set of marginal workers—those who report they would consider applying to a given firm if they were to change jobs. By randomizing wages across hypothetical job offers from these self-identified potential destinations, we recover the money-metric value of non-wage job attributes without relying on observed mobility patterns or assumptions about offer arrival. Amenity valuations vary widely across firms and are only weakly correlated with wages. High-amenity firms are larger, have lower quit rates, and receive more favorable employee reviews on flexibility, culture, and leadership. Valuations differ sharply across demographic groups, contributing to sorting by gender and education. Many job-to-job transitions involve downward wage moves paired with upward amenity moves, suggesting that workers actively trade off pay for non-wage attributes. A variance decomposition shows that amenities explain a substantial share of between-firm inequality in total job value.

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1 Introduction

Firms differ not only in the wages they pay, but also in the non-wage attributes they offer—job security, flexibility, professional development, and culture, among others. While these firm-specific amenities are widely believed to matter for worker satisfaction and retention, little is known about how workers value them, how those valuations vary across individuals, and whether amenities reinforce or offset wage differences across employers. This paper provides new evidence on workers' valuations of firm amenities and examines their role in job choice, labor market sorting, and inequality.

We elicit workers' preferences using a novel discrete choice experiment embedded in a large-scale survey of German workers. In the experiment, respondents are asked to rank hypothetical job offers from firms they personally selected as likely application targets, with researcher-randomized wage differences across offers. This design allows us to identify workers' money-metric valuations of firm-specific amenities, separately from equilibrium wage differences or offer arrival rates. We link the survey to administrative Social Security records and to firm-level data from kununu, a major employer review platform, to study how these valuations relate to observed job transitions, firm characteristics, and inequality.

We present four main sets of findings. First, we estimate the average amenity value provided by each firm in our data. Workers often select lower-wage firms in the discrete choice experiment, implying that they perceive meaningful trade-offs between pay and non-wage job attributes. We show that estimated amenity values vary widely across firms and are only weakly negatively correlated with wages—suggesting that amenities often reinforce, rather than offset, between-firm pay differences.

Second, we examine the characteristics of high-amenity firms. Using data from kununu, we find that firms with high amenity valuations are more likely to be rated highly by employees on dimensions such as flexibility, culture, and leadership quality. We also show that these firms tend to be larger and have lower quit rates, conditional on wages. These patterns are consistent with structural models that infer firm desirability from firm size or retention. However, our estimates

are directly identified and do not require assumptions about job offer rates or equilibrium sorting.

Third, we explore heterogeneity in amenity preferences across workers. Survey responses indicate that women and college-educated workers place more importance on flexible schedules, remote work, and reduced hours. We re-estimate firm valuations separately by subgroup and find that women and men, as well as college- and non-college-educated workers, rank firms very differently. For example, the correlation in amenity valuations between men and women is just 0.06. This heterogeneity in preferences likely contributes to observed sorting patterns by gender and education, even in the absence of wage discrimination.

Fourth, we assess the implications for job mobility and inequality. Many job-to-job transitions involve trade-offs between wages and amenities: more than one in five downward wage moves are accompanied by an upward move in amenities. We also show that amenities contribute substantially to between-firm inequality. A variance decomposition reveals that firm amenities explain more variation in total job value than wage premia and are only weakly correlated with them. These findings suggest that amenities are not fringe benefits, but rather core features of firm heterogeneity in the labor market.

Together, these results show that non-wage job attributes play a first-order role in shaping labor market outcomes. Workers differ in what they value, and firms differ in what they offer—not just in wages, but in the overall quality of employment. Understanding how workers sort across these differences is essential for interpreting mobility patterns, explaining demographic sorting, and evaluating the sources of wage and utility inequality in modern labor markets.

This paper contributes to several strands of literature on labor economics, firm heterogeneity, and job mobility. First, our work builds on the large literature on compensating differentials (Rosen, 1986; Mas and Pallais, 2017; Sorkin, 2018), which examines how workers trade off wages for non-wage job attributes. While this literature typically infers compensating differentials from observational wage and mobility patterns, our approach directly estimates workers' valuations of firm-specific amenities through an experimental design. By randomizing wage differentials in discrete choice experiments, we provide clean identification of the money-metric value of firm

amenities, avoiding the endogeneity issues that arise in revealed preference approaches. Our results highlight that firm amenities are not merely compensating differentials—high-wage firms also tend to provide better amenities, reinforcing rather than offsetting between-firm disparities in job quality.

Second, our paper contributes to research on firm wage premia and worker sorting (see, e.g., Card et al., 2018, n.d.; Song et al., 2019; Lamadon et al., 2022). Prior work has demonstrated that firms differ systematically in the wages they pay, even after controlling for worker characteristics, and that these wage premia play a central role in shaping labor market inequality. However, much less is known about the role of firm-specific amenities in driving worker mobility and sorting patterns. Our findings suggest that firm amenities are an important omitted factor in models of wage setting and job choice, as they influence both the size of firms and the types of workers they attract. Moreover, our results suggest that firm amenities contribute to overall inequality, as firms that offer higher wages also tend to provide more desirable non-wage attributes.

This paper is structured as follows. Section 2 describes the data sources used in our analysis, including the discrete choice experiments embedded in the worker survey, administrative Social Security records, and firm-level information from kununu. Section 3 outlines our empirical strategy for estimating firm-specific amenity valuations, presenting a conceptual framework and detailing how our discrete choice experiment allows us to recover money-metric values of firm amenities. Section 4 presents our core empirical results. Section 5 examines the implications of firm amenities for worker mobility and labor market inequality. Section 6 concludes.

2 Empirical Setting and Data

Our analysis leverages a unique combination of discrete choice experiments embedded in a large-scale survey of workers, linked to administrative Social Security records and to information on specific amenities provided by firms.

2.1 Data

We obtain data from three primary sources.

CHH Worker Survey. First, we use data from a large-scale survey of full-time German workers to identify workers' valuations of firm-provided amenities. We fielded an initial wave of the survey in fall 2022 and a follow-up in spring 2024; we pool data from both waves in most of our analysis. We fielded this survey to full-time German workers between the ages of 25 and 50 who had been at their establishment for fewer than eight years. Because we over-sampled workers from the firms included in the firm bargaining survey conducted by Caldwell, Haegele and Heining (2024a), we re-weight responses according to this explicit dimension of over-sampling; this type of re-weighting is considered a best practice in the survey literature. (Manski and Lerman, n.d.; Solon et al., 2015). In previous papers we analyzed the modules in this survey focused on wage bargaining and on workers' beliefs about pay (Caldwell et al., 2024a,b). The appendices to these papers provide further details on sampling and implementation.

To elicit firm-specific valuations, we designed a survey module in which workers reported where they would apply if they decided to switch firms. This approach allows us to focus on firms that workers actively consider as potential employers. After identifying relevant firms, we asked workers to rank hypothetical job offers from these firms under randomly assigned wage increases. We standardized and cleaned the free-text firm names provided by respondents and matched them to establishment identifiers in the German Social Security records housed at the IAB using establishment addresses.

IEB Social Security Records. To compare amenity valuations to observed pay policies and to link valuations to job-to-job mobility and inequality we use the administrative Social Security records compiled by the IAB. These data provide comprehensive employment histories, including job start and end dates, wages, and establishment identifiers. We match the CHH worker survey to these records twice. First, we match each respondent to their own Social Security records. Second,

we use the crosswalk between firm names and establishment identifiers that we generated to match each respondent to data on each of the firms they provided.

Beyond the data on surveyed workers, we use two extracts from these records. First, we use a 2% random sample of workers employed in 2020 to describe the broader labor force. Second, we use data on all workers who switched firms between 2010 and 2019 to study mobility patterns. We apply the approaches of Sorkin (2018) and Kroft et al. (2013) to estimate firm-level utility and firm-specific poaching ranks using observed mobility patterns.

We obtain additional firm-level data from the IAB, including estimates of firm wage premia and workforce composition. The firm wage premia capture systematic differences in pay across firms, controlling for worker characteristics, and allow us to examine how firm-provided amenities relate to wage-setting practices (Bellmann et al., 2020). We also use the Betriebs-Historik Panel (BHP) to assign establishments to sectors, and to identify the number of full-time employees and full-time female employees at each establishment. We create firm-level aggregates by taking employment-weighted averages.

Employer Ratings and Reviews. Finally, we link our survey and administrative data to employer reviews from kununu, a leading employer rating platform in Germany. Similar to Glassdoor, kununu allows current and former employees to evaluate their workplaces across multiple dimensions, including compensation, work-life balance, career opportunities, and organizational culture. In addition to structured ratings on a standardized scale, the platform provides information on the share of employees who have confirmed that a firm offers 19 specific amenities, such as flexible working arrangements, childcare support, or commuter benefits (see Figure 1).

Employee reports of firm-provided amenities offer a more accurate measure of workplace conditions as experienced by workers, avoiding potential biases in firm-reported data, which may reflect employer branding strategies or compliance incentives rather than the actual availability and quality of amenities. Because our data come from a public website, it contains information workers outside the firm have access to. We provide descriptive statistics based on these data in

Appendix C.2.

2.2 Descriptive Statistics and Sample Selection

We estimate firm-specific valuations using the sample of workers who named at least one firm in either the initial or follow-up survey wave. For workers who did not provide this information in either wave, we asked about their reasons for non-response. Appendix Table A1 shows that the majority either had no interest in switching firms (47%) or could not identify specific companies (38%). The first group of inframarginal workers is unlikely to be relevant for firms' wage-amenity setting decisions, while the second group would not have provided meaningful responses in the choice experiment.

Table 1 compares our surveyed workers (Columns 1-2) to two benchmark samples: a 2% random sample of full-time workers aged 25-50 employed in 2020 (Columns 3-4) and the universe of full-time job movers between 2010 and 2019 (Columns 4-6). Relative to the full workforce, our sample is younger, more educated, and higher earning, reflecting the fact that we have a larger share of workers in the manufacturing sector. This reflects the fact that we oversampled workers at firms included in a previous survey; many of these firms were in the manufacturing sector. Compared to a random sample of workers, job movers are somewhat younger and lower earning. A future draft of this paper will examine the robustness of our results to various re-weighting exercises.

The surveyed workers named 4025 unique firms, which we describe in Table 2. Like the workers in our sample, these firms span all parts of the wage distribution and all major sectors.

3 Valuing Firms' Amenities

This section presents a simple conceptual framework in which workers choose among firms based on both wages and non-wage job attributes. We then outline our empirical strategy, which uses discrete choice experiments with randomized wages, to estimate workers' willingness to pay for firm amenities. We discuss how this strategy relates to alternative survey-based and observational

methods.

3.1 Conceptual Framework

Workers value wage and non-wage values provided by firms. The utility worker i derives from working at firm j is

$$u_{ij} = \log w_j + a_j + \epsilon_{ij}$$

where w_j is the wage she earns at that firm, a_j is the average money-metric value of firm-provided amenities, and ϵ_{ij} is the worker's idiosyncratic preference for firm j. When comparing offers between firms j and k the worker chooses the offer from firm k if $u_{ik} > u_{ij}$, which occurs if

$$\log w_j + a_j + \epsilon_{ij} < \log w_k + a_k + \epsilon_{ik}.$$

Under the assumption that workers' idiosyncratic preferences for firms follow an the probability a worker chooses firm k over firm j, which we denote P_{kj}, is

$$P_{kj} = \frac{\exp(V_k)}{\exp(V_k) + \exp(V_j)}.$$

where V_k represents the systematic portion of utility.

The ratio of choice probabilities satisfies

$$\frac{P_{kj}}{P_{jk}} = \frac{\exp\left(\log w_k + a_k\right)}{\exp\left(\log w_j + a_j\right)}$$

and, taking logs

$$\log P_{jk} - \log P_{jk} = \left(\log w_k - \log w_j\right) + \left(a_k - a_j\right).$$

If the expected wage difference between the two firms is 0 (i.e. if $E[\log w_k - \log w_j]$) the difference in log transition probabilities directly identifies the gap in amenity values.

3.2 Recovering Amenity Valuations Through Discrete Choice Experiments

We estimate workers' valuations of firm-specific amenities using choices revealed in discrete choice experiments (DCEs) in which we randomize the wages associated with firms. This experimental variation ensures that, on average, the expected wage difference between any two firms is zero, eliminating concerns that observed mobility patterns reflect equilibrium wage differentials rather than underlying preferences for non-wage attributes. In contrast to observational approaches, which require strong assumptions about firm offer rates and search frictions, our design allows us to directly recover amenity valuations from choice probabilities. When wages are randomized, differences in the probability of selecting one firm over another are driven solely by differences in non-wage utility, allowing us to identify the money-metric value of firm amenities without confounding from wage-setting dynamics (e.g. bargaining or match effects) or endogenous worker sorting.

Following the recent literature on valuing amenities, we asked workers to rank hypothetical job offers from multiple firms under researcher-randomized wage increases. The instructions read:

> "*Suppose you can remain at your current company or switch to any of the companies listed below and immediately receive the raise specified below. Please rank the following job offers from 1 to 4 where 1 is the offer you are most likely to take and 4 is the offer you are least likely to take.*"

Each worker saw three hypothetical job offers, with wage changes ranging from a 5% pay cut to a 20% raise, assigned in 5-percentage-point increments to simplify comparisons. In addition to ranking these offers, workers also ranked the option of staying at their current firm at a specified raise.

For each $j - k$ pair of firms we calculate the empirical share of workers who choose k over j. We then use the methodology from Sorkin (2018) to estimate the value of each firm implied by this matrix. This approach allows us to rank firms which are not themselves explicitly ranked and to account for the fact that there are some pairs of firms for which workers always choose one firm

in the pair.

Linking Amenity Valuations to Overall Values. Our estimation strategy yields the value of amenities provided by a specific firm, a_j. For most of our analysis this is the key object of interest. However, in some exercises we link these valuations to the overall value of utility provided by a firm, V_j, which depends on both amenities and wages. We compute the overall value provided by a firm by combining our estimates with either (1) estimates of observed wage premia or (2) estimates of perceived wage premia. The former are the firm effects from regression models in which workers' (log) wages are modeled as a function of workers' education and experience, as well as time-invariant worker and firm fixed effects (Bellmann et al., 2020). The latter are the firm effects from regression models in which workers' (log) expected pay is modeled as a function of time-invariant worker and firm fixed effects (Caldwell et al., 2024b). We elicited workers' pay expectations at their provided firms in the same survey. We combine these data with the money metric amenity valuations to obtain overall amenity values.

Randomization Assessment. Appendix Table A3 confirms that the randomized wages assigned to different firms are uncorrelated with firm characteristics, including actual and perceived wage differences between firms.

3.3 Comparison with Alternative Estimation Approaches

In designing the survey, we faced two key decisions: (i) how to elicit workers' valuations of firm amenities and (ii) which sample of worker-firm pairs to include in this elicitation. To measure preferences, we chose to implement a series of discrete choice experiments (DCEs) in which workers ranked hypothetical job offers with randomized wage increases. An advantage of stated choice data is that, by randomizing wage offers, we can directly estimate workers' firm-specific valuations of amenities. Revealed choices only identify the portion of amenities which are orthogonal with wages (Sorkin, 2018). In a compensating differentials framework, amenities act as non-monetary

compensation, leading workers to accept lower wages in exchange for desirable job attributes. However, amenities may also reinforce between-firm wage differences, rather than offset them. Revealed preference methods do not allow for direct estimation of amenity values; a researcher can only estimate the value which is orthogonal to wages. This also precludes an analysis of the extent to which heterogeneity in firm-level amenities affects the variance of overall utility provided by firms.

Revealed preference approaches only identify the component of amenities orthogonal to wages (Sorkin, 2018). In a compensating differentials framework, amenities serve as non-monetary compensation, leading workers to accept lower wages in exchange for desirable job attributes. However, amenities may also reinforce between-firm wage differences rather than offset them. Revealed preference methods do not allow for direct estimation of amenity values; they can only recover the portion uncorrelated with wages. This limitation precludes an analysis of the extent to which heterogeneity in firm-level amenities contributes to dispersion in total utility across firms.

Stated choice data have another advantage over revealed flows: they do not rely on an assumption about firm offer rates. In observational data, job-to-job transitions depend not only on worker preferences but also on the frequency with which firms extend offers. A common approach in the empirical literature is to proxy a firm's offer rate using the share of non-employed workers it hires, assuming that firms extend offers to both employed and non-employed job seekers at similar rates. However, if firms target recruiting efforts differently across these groups, this measure may not accurately reflect the total offer arrival rate (Kroft et al., 2013). If high-amenity firms make fewer offers or have queues of applicants, revealed preference estimates will understate workers' willingness to pay for those amenities (Mas, 2025). In contrast, discrete choice experiments present workers with hypothetical offers that are not constrained by firm hiring behavior.[1]

Interpretation of Estimates. Because our experiments randomize wages, holding all other firm characteristics constant, our firm-specific estimates of amenity valuations capture the entire bundle

[1]The firms that workers provide may be shaped by beliefs regarding offer probability. This is not a concern for our design because these firms remain those for which the worker is marginal. Previous work has documented evidence of queuing (Holzer et al., 1991).

of non-wage factors offered by a firm. This may include both tangible benefits—such as flexible work arrangements, career development opportunities, and job security—as well as less easily quantified attributes, including workplace culture and managerial quality. These estimates may also reflect dynamic considerations, as workers may factor in expectations about future promotions, learning opportunities, or firm-specific human capital accumulation when evaluating prospective employers. To address this concern, we asked a random subset of workers to re-rank the hypothetical job offers under the assumption that all outside firms offered identical wage growth and promotion trajectories. By holding these dynamics constant, we isolate workers' preferences for non-wage job attributes, and can examine the extent to which workers' valuations are driven by differences in expected earnings progression.

Alternative Approaches. A natural alternative would have been to ask workers directly how much they would be willing to forgo to leave their current firm or how much they would require to join a specific firm. In theory, such an approach would yield each worker's exact willingness to pay for a particular firm, instead of the bound revealed by their choice at a given wage differential. However, stated willingness to pay (WTP) measures are often unreliable, as responses can be sensitive to framing effects, reference points, and hypothetical bias (Johnston et al., 2017; see also Mas, 2025). Prior research has shown that DCEs can produce estimates comparable to revealed preference approaches, provided that workers evaluate job bundles they are familiar with (see, e.g., Hainmueller et al., 2015; Maestas et al., 2023; Mas and Pallais, 2017; Wiswall and Zafar, 2018). Firms use DCEs to design benefit plans and schedules in real-stakes environments (DeBellis, 2018).

3.4 Design Validity and Sample Selection

To ensure realism in these experiments, we asked workers to compare job offers from firms they had previously identified as likely application targets if they were to switch employers. This approach offers two key advantages.

First, a primary concern with discrete choice experiments is that respondents may struggle to evaluate options they are unfamiliar with, potentially leading to noisy or unreliable responses. By focusing on firms workers specified they would apply to, we mitigate this concern. Appendix B confirms that the characteristics of these firms closely resemble those of firms that workers from the same employer have historically moved to, further supporting the validity of this design. Further, we find a positive correlation between the share of workers from a given origin firm who provide a destination firm and the share of workers from that origin firm who have transitioned to that firm (Figure A1). Because we use job transitions from 2010–2019 for this comparison, and our survey was fielded in 2022, this correlation is not mechanically driven by workers providing information on their future transitions.

Second, when preferences over firms are heterogeneous, estimated valuations depend on the sample of workers evaluating a given firm. In many models, the workers most relevant for firms when setting amenities are those on the margin of switching, as they are the most responsive to changes in workplace attributes (Rosen, 1986). By focusing on firms that workers themselves identified as potential destinations, we ensure that our estimates capture the preferences of this economically relevant group.

We fielded the survey to a representative sample of workers rather than focusing solely on recent job-to-job movers. While either group could, in principle, provide information on valuations at the margin, our choice was driven by both data constraints and conceptual considerations. The German Social Security records we used for sampling are not updated frequently enough to reliably identify recent movers in real time. More importantly, we chose to focus on valuations of outside firms rather than comparisons between a worker's current and previous employer.

Focusing on outside firms provides us with a cleaner measure of workers' valuations in equilibrium. Interpreting differences in valuations across past and current firms can be challenging if preferences evolve during tenure—due to the accumulation of firm-specific capital or the formation of social ties—or if dynamic selection processes shape who remains at a firm over time (Caldwell et al., 2024b; see also Pakes et al., 2021). Differences in valuations between an incumbent and

outside firm may also be shaped by switching costs (Fox, 2010).

4 Firm Wages, Amenities, and Valuations

4.1 Baseline Estimates of Valuations

Our estimation strategy rests on the assumption that workers perceive a trade-off between wages and non-wage characteristics when choosing among firms. Because wages were randomized across offers, any systematic preference for one firm over another reveals a difference in amenity value. If, on average, workers prefer a lower-paying firm, this implies that they perceive it as offering superior non-wage job attributes—such as greater flexibility, better management, or stronger career development.

Figure 2 illustrates this trade-off. It plots the share of workers, by subgroup, who chose the higher-wage offer in the DCE. On average, 35 percent of workers selected the lower-wage firm, suggesting that amenity considerations play a meaningful role in job choice. This is consistent with observational evidence that a large share of job-to-job transitions involve wage cuts, and reinforces the interpretation that workers value a broader bundle of job characteristics beyond pay alone. It also suggests that the variation in amenity valuations is large.

We next examine how estimated amenity valuations relate to firm wage policies. In Figure ??, we plot firm-specific amenity valuations against two wage measures: (i) firm wage premia estimated from administrative Social Security records and (ii) perceived wage premia reported by workers in the survey. Across both measures, we find only a weak correlation. Many high-wage firms also receive high amenity valuations, suggesting that firms may compete on both wage and non-wage margins. This stands in contrast to the prediction of standard compensating differentials models, which imply a strong negative relationship between pay and amenities. Instead, our results indicate that amenities often reinforce rather than offset wage differences, a point we return to in Section 5.3.

4.2 Between-Group Heterogeneity

Firm amenities may be valued differently across workers, leading to sorting patterns that reflect not only wage differences but also variation in non-wage job preferences. In the follow-up wave of the survey we asked workers how important three job characteristics were to them: predictable hours, the opportunity for reduced hours, and remote work options.

Figure 3 shows both that workers say workplace amenities are important in their decision of where to work and that there is substantial heterogeneity across groups in the extent to which workers prioritize different amenities. Nearly half of workers say that a home office option is extremely important to them; thirty percent (seventy four percent) of workers say that predictable hours are extremely (extremely or very) important. For each of the three elicited amenities, women are significantly more likely than men to say that the amenity is important to them.

We next examine whether these group-level differences in stated preferences translate into differences in revealed amenity valuations. To do so, we re-estimate firm-specific amenity values a_j, separately for different subgroups: women, men, college-educated workers, and those without a college degree. Table 3 reports the correlations between these subgroup-specific amenity valuations and the baseline estimates. Several patterns emerge.

First, there is substantial heterogeneity in valuations. The correlation between amenity valuations among women and men is just 0.06, indicating that the types of firms women and men view as high-amenity differ almost entirely. This low correlation is striking given that both groups consist of workers who are marginal to the firms provided. The baseline amenity values are more strongly aligned with those of men (correlation of 0.785) than with those of women (0.384), reflecting the fact that the sample skews male.

Second, we find similar divergence in preferences by education. The correlation between the amenity valuations of college-educated and non-college workers is just 0.12, suggesting again that workers with different demographic profiles evaluate firms differently—not only in terms of wage opportunities, but also in terms of non-wage attributes. The correlation between the baseline estimates and college-educated workers' valuations is high (0.746), while the correlation with non-

college-educated workers is substantially lower (0.481), again reflecting sample composition.

4.3 What Do Workers Value?

Like estimates inferred from more structural approaches—and akin to place-based valuations in the urban economics literature—our estimates of firm amenity values capture a bundle of characteristics rather than a single firm attribute. While we cannot separately price each amenity, it is useful to examine which types of firms are perceived as offering better amenities.

We conclude this section by analyzing: (i) whether high-amenity firms systematically differ in their wage growth trajectories, and (ii) the correlation between firm-specific amenity valuations and observable non-wage benefits, as reported in external firm review data. For simplicity we focus on the average valuations (including all workers).

Wage Growth. In many models of job choice, workers trade off current wages for expected future wage growth. If firms offering high amenities also provide steeper wage growth profiles, part of what we measure as an "amenity" may reflect dynamic wage considerations rather than static job attributes. To test this, we exploit data from an additional discrete choice experiment (DCE), in which workers re-ranked firms under the assumption of constant wage growth across firms. We compute amenity values under this assumption, which we call $a_j^{\text{constant growth}}$ (in contrast to our main estimates a_j^{baseline}).

We plot a_j^{baseline} against $a_j^{\text{constant growth}}$ to visually examine whether high-amenity firms in the baseline experiment experience declines in estimated amenities under the constant-growth assumption. If firms derive part of their attractiveness from anticipated earnings growth, we expect a downward shift, where firms that initially ranked highly in amenities lose valuation when wage growth is held constant. Figure 4 shows some evidence of this downward shift: valuations are lower once we remove the role of promotions and wage growth. To assess how much relative firm rankings change, we compute rank correlations between the two sets of estimates.

Other Amenities. Beyond wage growth, workers may also value characteristics such as flexible work arrangements, remote work opportunities, or workplace culture. To examine these dimensions, we regress firm-specific amenity valuations on externally reported firm characteristics from kununu:

$$a_j = \beta_0 + \sum_k \beta_k X_{jk} + \epsilon_j$$

where a_j are our amenity valuations and the X_{jk} include firm-specific scores on, e.g., work-life balance, job security, management quality, and workplace culture or firm-specific information on whether particular amenities are available.

A key strength of kununu is that it provides publicly available, worker-generated data on amenities actually offered by firms, rather than relying on firm-reported benefit packages. This distinction is important because firms may claim to offer benefits—such as childcare services or diversity programs—that are difficult to access or do not meet worker expectations. By using worker ratings, we can assess whether firms that employees rate highly on non-wage attributes also receive higher revealed amenity valuations in our experiment. **[Note: Based on preliminary build, as noted above; does not include data from the follow-up survey].**

Interpretation of Coefficients. While this exercise helps characterize high-amenity firms, it does not separately identify the price of each characteristic. For example, a firm with high work-life balance ratings may be valued more not because work-life balance itself has a specific monetary value, but because such firms also provide other unobserved desirable job attributes that workers value as part of a broader package. This issue is analogous to the "wrong-signed wage premia" problem in the compensating differentials literature, where amenities may appear to be positively correlated with wages due to unobserved firm heterogeneity. Importantly, adding more firm characteristics to the regression does not resolve this issue, as the fundamental problem is that firms differ in multiple dimensions simultaneously, making it difficult to isolate the independent effect of any single amenity.

5 Aggregate Implications

This section discusses aggregate implications. About half of the moves down the firm wage ladder can be explained by changes in firm-provided amenities. High amenity firms are larger and see lower quit rates, conditional on the wage. Provision of firm amenities amplifies inequality.

5.1 Higher Amenity Firms Are Larger and See Lower Quit Rates

Firms that offer higher amenities should attract and retain more workers than otherwise similar firms offering the same wage. A large literature infers amenity values using this logic, assigning higher amenity values to firms that are larger than their wages alone would predict. A potential concern with this approach is that firm size reflects not only job amenities but also other factors, such as recruiting intensity or hiring frictions, which may lead to overestimation of amenity values.

To assess the relationship between firm amenities and employment, we estimate the elasticity of firm size with respect to amenity values, controlling for wages using alternative specifications. We run regressions of the form:

$$\log E_j = a_j + w_j + X_j + \epsilon_j$$

where $\log E_j$ is the log size of firm j, a_j is an estimate of the firm's amenity values, w_j is a measure of the firm's wage policy, and the X_j includes a constant and potentially other covariates. Table 5 reports the results using three different measures of firm wages: the firm's observed wage premium (Panel A), the firm's median pay (Panel B), and the firm's mean pay (Panel C). The first set of coefficients in Column 1 shows that, across all specifications, firm amenity valuations are positively associated with firm size. This relationship remains significant even within industries, as shown in Column 2. The implied elasticity is 0.2, suggesting that a 10 percent increase in firm amenity valuation is associated with a 2 percent increase in firm employment.

Columns 3 and 4 report results using amenity valuations derived from the alternative discrete choice experiment, in which workers were asked to evaluate firms under the assumption of identical

career progression. The estimated elasticities remain positive and, if anything, slightly larger than those in our preferred specification (presented in Column 2). While standard errors are somewhat larger, the results confirm that the relationship between firm amenities and size is not driven by differences in expected wage growth. The second set of entries confirms that there is a negative relationship between amenity valuations and voluntary quit rates.

5.2 Relative Importance of Wage and Non-Wage Factors in Job-to-Job Mobility

Because our estimates of amenity values are not directly derived from worker flows, we can examine the extent to which job-to-job transitions are associated with moves up or down the firm wage and firm amenity ladders. Table 4 presents transition matrices that categorize job-to-job movers based on changes in both wages and estimated firm amenity values. Each panel considers a different measure of wages: Panel A examines changes in a worker's own wage, Panel B considers changes in the firm wage premium, Panel C uses the firm's (log) median wage, and Panel D evaluates changes in the firm's (log) mean wage.

A substantial share of workers who take wage cuts move to firms with similar or better amenities, rather than experiencing losses in both dimensions. Focusing on Panel A, which tracks changes in a worker's own wage, 23.9% of job movers take a wage cut of more than 2%. Among these downward wage moves, only 5.8% involve a simultaneous decline in amenities, while 72.6% of wage-cut movers transition to firms with similar amenities, and 21.6% move to firms with at least a 2% increase in amenities. This pattern suggests that for the majority of downward wage moves, workers are not trading off both wages and amenities but are instead compensating for lower pay by moving to firms with better non-wage attributes.

A similar pattern emerges when analyzing changes in firm wage premia, median wages, and mean wages (Panels B-D). Across all wage definitions, only a small fraction of downward wage moves involve a simultaneous decline in amenities. Instead, the vast majority of workers who accept lower wages either maintain or improve their amenity valuations.

Dynamic Considerations. A natural concern is whether these pay cuts are accepted in expectation of future wage growth. Appendix Table A4 presents a similar analysis using our alternative measure of amenities that equalizes growth expectations across firms. The results remain broadly similar, suggesting that the observed trade-offs between wages and amenities are not merely a reflection of forward-looking wage considerations.

Overall Mobility. Looking at overall mobility patterns, we find that workers are more likely to move up the wage ladder than up the amenity ladder. Forty-one percent of workers move to firms that offer them higher wages (>2% increase) and nearly ten percent move to firms that offer the typical worker higher wages (>2% increase). By contrast, only 7.4% of transitions are to firms with significantly higher amenities (>2% increase). The estimates in Appendix Table A4, which account for differences in wage growth expectations, show a similar pattern: 38.2% of movers experience a wage increase, while only 5.3% move to firms with higher amenities—once we remove wage growth as a source of amenities. These findings indicate that wage gains are the primary driver of job-to-job mobility. However, a nontrivial fraction of workers move primarily to improve their working conditions rather than their pay.

5.3 Amenities and Between-Firm Inequality

We can also examine the extent to which heterogeneity in amenity provision amplifies or dampens inequality in total job value across firms. To do so, we compute the variance of firm-level amenity valuations and compare it to the variance in wage premia and perceived wage premia. We also examine the covariance between amenities and wages to assess whether high-wage firms systematically offer better or worse non-wage attributes. We present these statistics both in the full cross-section of firms and in the sample of firms involved in job-to-job transitions, where sorting is most active.

Panel A of Table 5.3 reports the variance in firm wage premia, while Panel B reports the variance in perceived wage premia—workers' expectations about how pay differs across firms. Panel C

presents the variance in firm-specific amenity valuations from our baseline discrete choice experiment. We find that the variance in amenity values (0.196 in the unweighted sample) is substantially larger than the variance in either wage premia (0.011) or perceived wage premia (0.006), indicating that non-wage characteristics account for a significant share of firm heterogeneity in total job value. This pattern holds across weighting schemes (weighting by firm or by employment), with even larger variances observed in the job-to-job mover sample (0.461), suggesting that workers who are actively sorting across employers face particularly wide dispersion in non-wage attributes.

The covariance estimates reveal that amenities and wages are not strongly negatively correlated, as would be expected under a pure compensating differentials framework. In the unweighted sample, the covariance between amenities and wage premia is slightly negative (–0.006), while the covariance with perceived wage premia is slightly positive (0.015). In other words, higher-wage firms do not systematically offer fewer amenities—and in some cases, may offer slightly more. These patterns suggest that amenities may reinforce, rather than offset, wage inequality across firms.

Panel D presents analogous results using the alternative amenity estimates from our discrete choice experiment that held career growth expectations constant. The variance in amenity values remains large (0.170), and the pattern of covariances is similar, with a slightly more negative relationship to wage premia (–0.012) and a slightly more positive relationship to perceived wage premia (0.021). This provides further evidence that differences in dynamic expectations do not drive our main findings and that firm heterogeneity in amenities remains a first-order feature of the labor market, even when wage progression is held fixed.

Taken together, these results show that firm-specific amenities are both highly dispersed and only weakly correlated with wages, implying that they are a distinct and meaningful component of between-firm inequality.

6 Conclusion

This paper provides new evidence on how workers value firm-specific amenities and how these valuations shape mobility, sorting, and inequality in the labor market. Using discrete choice experiments embedded in a large-scale survey of German workers, we estimate the money-metric value of firm amenities as perceived by marginal applicants—those who report they would consider moving to a given firm. By randomizing wages across hypothetical job offers, we recover firm-specific valuations that are independent of observed wage premia, offer rates, or hiring frictions.

Our findings highlight the economic relevance of non-wage attributes in job choice. Workers frequently choose lower-paying firms in the experiment, indicating that amenities such as flexibility, culture, or career development opportunities play a first-order role in shaping preferences. These amenity valuations vary widely across firms and are only weakly correlated with wages, suggesting that amenities often reinforce rather than offset pay differences across employers. High-amenity firms tend to be larger, have lower quit rates, and are more favorably reviewed by employees, consistent with the idea that amenities attract and retain workers.

Amenity preferences are also highly heterogeneous. We document large differences in stated preferences and revealed valuations across demographic groups. Women and college-educated workers, in particular, assign greater value to flexible and remote work, contributing to sorting along both wage and non-wage dimensions. Job-to-job transitions reflect this heterogeneity: many downward wage moves involve upward amenity moves, and a substantial share of mobility cannot be explained by pay alone.

Finally, amenities contribute meaningfully to between-firm inequality in total job value. Variance decompositions show that firm-specific amenities explain a larger share of cross-firm heterogeneity than either observed or perceived wage premia. These findings suggest that firm differences in job quality are an important—and underappreciated—dimension of labor market inequality.

Our results motivate several directions for future work. First, while we document substantial heterogeneity in amenities, we do not take a stand on which specific attributes drive worker preferences. Experimental variation in individual amenities would allow for more precise pricing. Sec-

ond, we abstract from the firm side of the market. Understanding how and why firms choose particular wage-amenity bundles—and how these decisions respond to worker preferences—remains an open question. Finally, because amenities are valued differently across workers, their distribution may have important implications for both efficiency and equity in the labor market. Analyzing how amenities interact with frictions and constraints in the matching process is a promising avenue for future research.

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7 Tables

Table 1: Descriptive Statistics

	Surveyed Workers		2% Sample		Job-to-Job Movers	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
	(1)	(2)	(3)	(4)	(5)	(6)
Demographics						
Female	0.32	0.47	0.34	0.47	0.33	0.47
Age	33.15	5.95	37.28	7.45	35.76	7.62
German Citizen	0.94	0.24	0.94	0.23	0.92	0.28
College Degree	0.67	0.47	0.17	0.37	0.25	0.43
Apprenticeship	0.27	0.45	0.74	0.44	0.66	0.47
Earnings						
Daily Pay	177.96	54.98	110.30	61.18	99.81	54.81
Censored Pay	0.23	0.42	0.05	0.23	0.08	0.27
AKM Person Effect	4.45	0.43	4.23	0.41	4.09	0.40
AKM Firm Effect	0.46	0.14	0.36	0.21	0.27	0.24
Sector						
Manufacturing Sector	0.48	0.50	0.31	0.46	0.18	0.39
Retail Sector	0.09	0.28	0.14	0.34	0.12	0.33
Professional Sector	0.13	0.34	0.06	0.23	0.08	0.27
Observations	2860		13588861		29649133	

Note: This table describes the characteristics of workers in our survey of full-time workers aged 25-50 in Germany (Columns 1-2), to the set of full-time workers aged 25-50 in Germany (Columns 3-4) and to full-time workers who have made a job-to-job transition (Columns 3-4).

Table 2: Characteristics of Ranked Firms

		By Sex		College Degree		Age	
	All Workers	Male	Female	Yes	No	>35	<=35
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Size	50406	53333	42049	51362	49241	52841	48408
	69022	70482	63999	70322	67421	70829	67468
Share Female	27%	26%	28%	26%	27%	26%	27%
	(11%)	(10%)	(11%)	(11%)	(11%)	(11%)	(11%)
Mean Wage	230	230	231	230	231	230	231
	(53)	(53)	(55)	(52)	(56)	(53)	(54)
Median Wage	207	207	208	207	208	207	208
	(48)	(48)	(49)	(47)	(50)	(48)	(49)
Firm Wage Premium	0.45	0.45	0.45	0.45	0.45	0.45	0.45
	(0.10)	(0.10)	(0.09)	(0.10)	(0.10)	(0.10)	(0.10)
Sector							
Manufacturing	52%	53%	50%	53%	51%	53%	51%
	(50%)	(50%)	(50%)	(50%)	(50%)	(50%)	(50%)
Retail	6%	6%	7%	6%	6%	6%	6%
	(24%)	(23%)	(25%)	(24%)	(24%)	(25%)	(23%)
Professional	24%	25%	21%	24%	23%	24%	23%
	(42%)	(43%)	(40%)	(43%)	(42%)	(43%)	(42%)
Number of Firms	2609	1858	1151	1544	1519	1431	1626
Number of Workers	2823	1932	891	1505	1318	1309	1514

Note: This table describes the firms that workers provided. Each column presents results for a different subgroup. Observations are weighted by the number of workers providing a firm.

Table 3: Correlation Between Valuations of Different Demographic Groups

	Baseline	Female	Male	College Degree	No College Degree
	(1)	(2)	(3)	(4)	(5)
Baseline	1				
Female	0.384	1			
Male	0.785	0.0606	1		
College Degree	0.746	0.431	0.673	1	
No College Degree	0.481	0.374	0.414	0.120	1

Note: This table examines the correlation in valuations of amenities for different demographic groups.

Table 4: Classifying Job-to-Job Moves

	Change in Amenities			
	>2% Cut	<2% Change	>2% Raise	Total
	(1)	(2)	(3)	(4)
A. Change in Own Wage				
>2% Cut	1.9%	19.9%	1.5%	23.3%
<2% Change	1.9%	32.2%	1.6%	35.7%
>2% Raise	4.9%	31.8%	4.3%	41.0%
Total	8.7%	84.0%	7.4%	100.0%
B. Change in Firm Wage Premium				
>2% Cut	3.7%	1.6%	3.5%	8.8%
<2% Change	0.4%	80.9%	0.3%	81.7%
>2% Raise	4.7%	1.2%	3.7%	9.5%
Total	8.8%	83.7%	7.5%	100.0%
C. Change in Firm Median Wage				
>2% Cut	3.7%	1.6%	3.5%	8.8%
<2% Change	0.4%	80.9%	0.3%	81.7%
>2% Raise	4.7%	1.2%	3.7%	9.5%
Total	8.8%	83.7%	7.5%	100.0%
D. Change in Firm Mean Wage				
>2% Cut	3.7%	1.6%	3.4%	8.7%
<2% Change	0.4%	80.9%	0.4%	81.7%
>2% Raise	4.7%	1.2%	3.7%	9.5%
Total	8.8%	83.7%	7.5%	100.0%

Note: This table reports the share of job-to-job transitions according to the change in wage and amenity values. The sample includes all full-time job movers between 2010 and 2019 who moved between firms for which we observe amenity values. All statistics use the baseline values of amenities; the panels use different definitions of a firm's wage policy. Statistics based on amenity values which do not include wage growth are presented in Appendix Table A4. Transitions above the greyed-out diagonal are to lower quality firms; transitions below the greyed-out diagonal are to higher quality firms.

Table 5: The Relationship Between Amenities and Firm Size and Quit Rates

	Baseline		No Growth	
	(1)	(2)	(3)	(4)
	A. Controlling for Observed Wage Premium			
Size	0.240***	0.240***	0.315**	0.315**
	(0.086)	(0.087)	(0.144)	(0.155)
	601	591	330	327
Quit Rate	-3.388**	-2.835*	-0.875	-1.033
	(1.554)	(1.699)	(1.066)	(1.318)
	572	572	316	316
	B. Controlling for Median Pay			
Size	0.298***	0.263***	0.375**	0.410***
	(0.104)	(0.100)	(0.155)	(0.152)
	601	591	330	327
Quit Rate	-3.333**	-2.385	-0.829	-0.749
	(1.566)	(1.743)	(1.081)	(1.316)
	572	572	316	316
	C. Controlling for Mean Pay			
Size	0.284***	0.248**	0.371**	7.918***
	(0.103)	(0.100)	(0.155)	(1.164)
	601	591	330	327
Quit Rate	-3.144**	-2.178	-0.803	-0.744
	(1.552)	(1.734)	(1.075)	(1.320)
	572	572	316	316
Sector Fixed Effects	No	Yes	No	Yes

Note: This table examines the relationship between (log) firm size and quit rates and amenity valuations, holding wage constant. We observe size in the Betriebs-Historik Panel (BHP). We calculate quit rates using data on all full-time workers who made a transition between 2010 and 2019. Each panel presents the coefficient on workers' valuation of firm-specific amenities from a regression of log size or the quit rate on this valuation, on a measure of the firm's wage policy (indicated in the panel), and a constant. Columns 1-2 use our baseline valuations; Columns 3-4 use the valuations computed under the assumption that wage growth at the firm remains constant. Levels of significance: * 10%, ** 5%, and *** 1%.

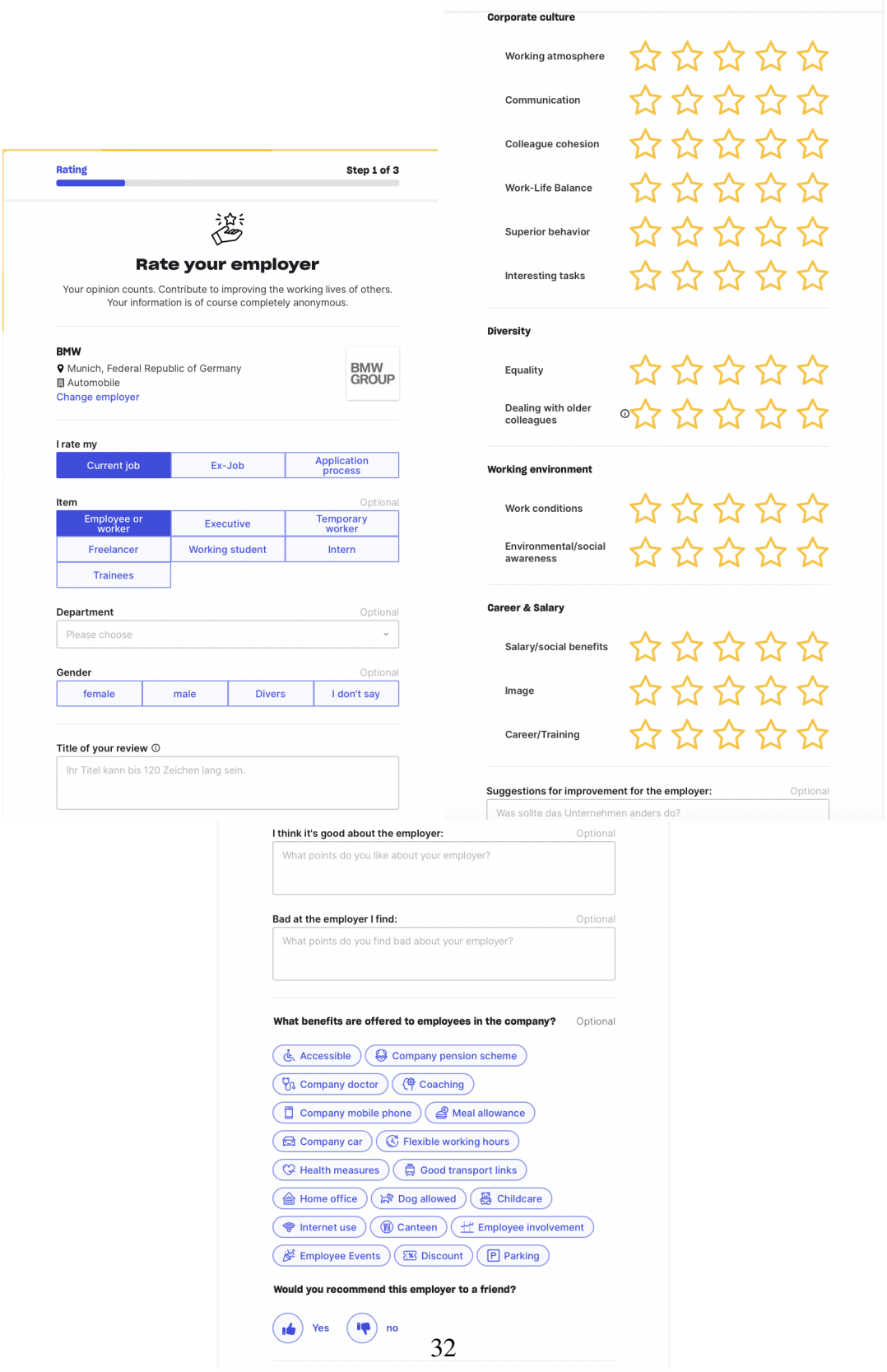
Table 6: Contribution of Firm Amenities to Inequality

	Estimates		Job-to-Job
	Unweighted	Weighted	Movers
	(1)	(2)	(3)
A. Firm Wage Premia			
Variance	0.011	0.006	0.017
B. Perceived Firm Wage Premia			
Variance	0.006	0.001	0.010
C. Amenity Valuations			
Variance	0.196	0.052	0.461
Covariance with Wage Premia	-0.006	-0.007	-0.008
Covariance with Perceived Wage Premia	0.015	0.003	-0.002
D. Amenity Valuations Without Growth			
Variance	0.170	0.049	0.417
Covariance with Wage Premia	-0.012	-0.012	-0.006
Covariance with Perceived Wage Premia	0.021	0.004	-0.002

Note: This table examines the variance of amenities, the variance of firm wage premia, and the covariance between the two. The observed firm wage premia come from fitting two-way fixed effects models to population wage data. The perceived firm wage premia come from fitting two-way fixed effects models to workers expected pay at outside firms.

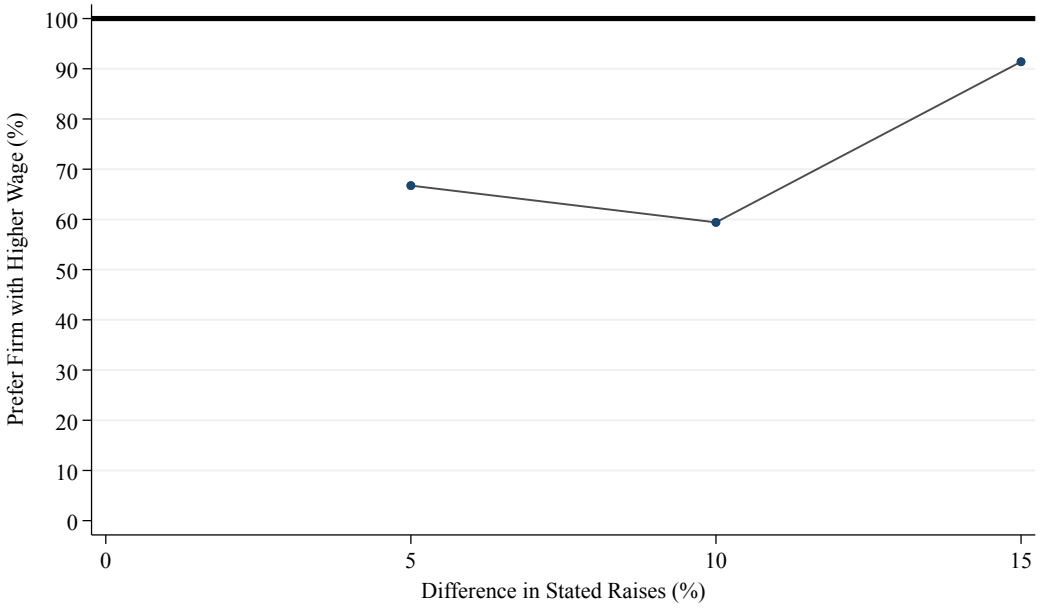
8 Figures

Figure 1: Screenshots of Kununu Website



Note: This figure provides screenshots of Kununu, an online platform on which workers rate their current and former employers, and provide information on the non-wage amenities these employers provide.

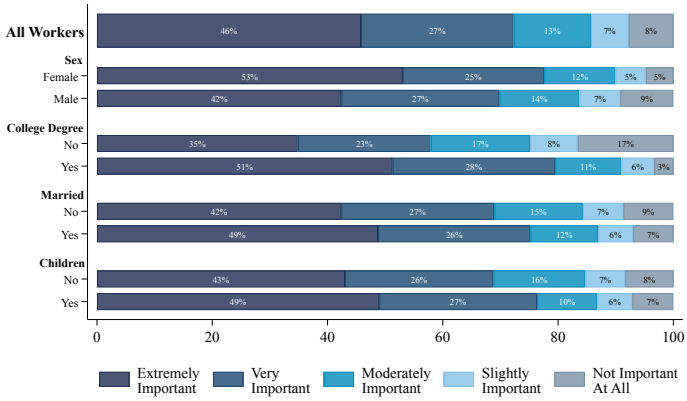
Figure 2: Share of Workers Who Choose Higher-Wage Offer



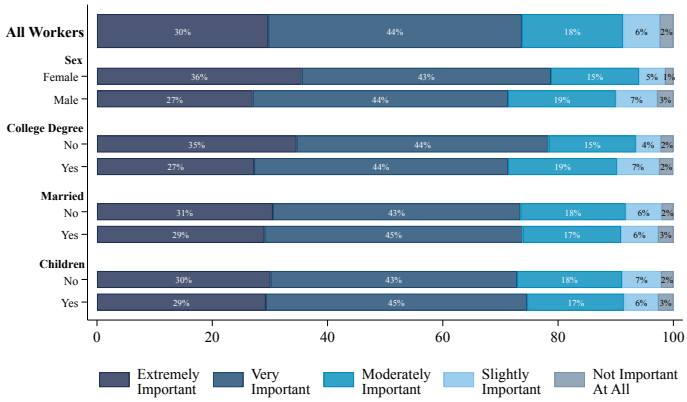
Note: This figure shows the share of workers selecting the higher wage offer, as a function of the difference in stated raises.

Figure 3: Share of Workers Who Say Certain Amenities Are Important

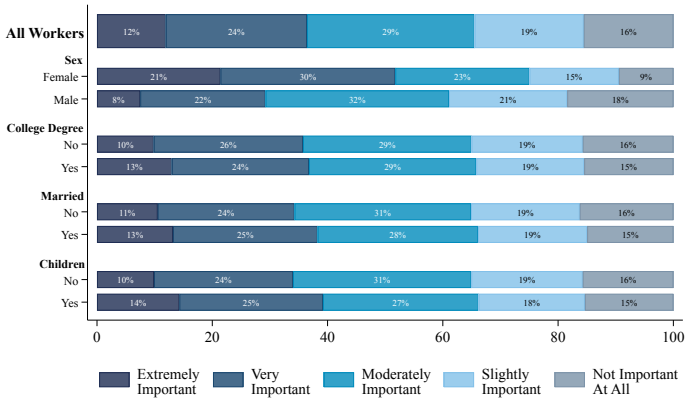
A. Home Office Option



B. Predictable Hours

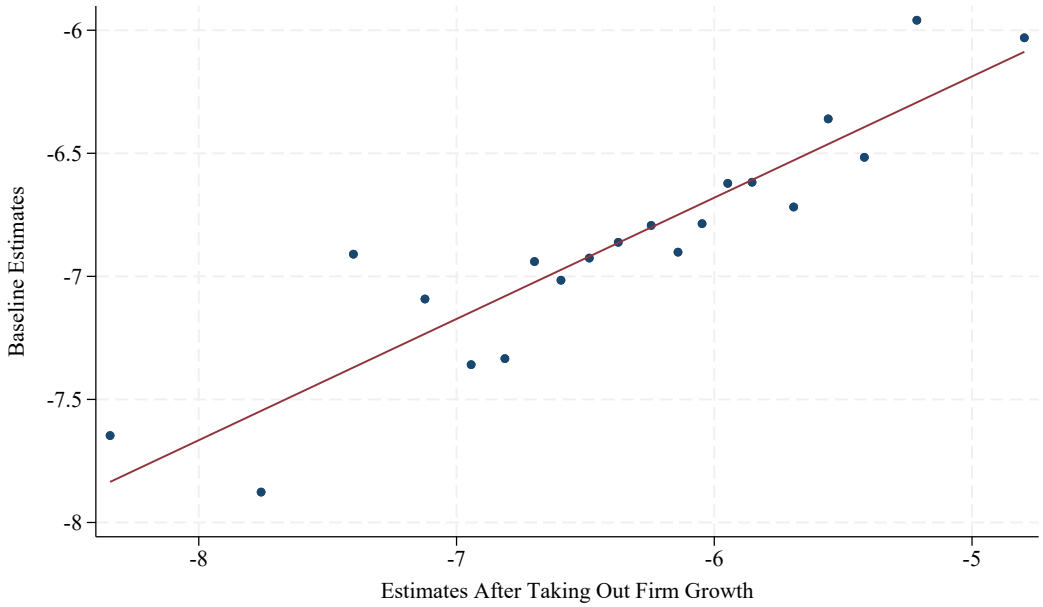


C. Opportunities for Reduced Hours



Note: This figure shows the share of workers in different demographic groups that rate specific amenities (predictable hours, remote work option, and reduced hours option) as not important, slightly important, moderately important, very important, and extremely important.

Figure 4: Relationship Between Valuations with and without Wage Growth



Note: This figure compares the baseline estimates of amenity valuations to those we obtain when we re-run the model using a discrete choice experiment where we told workers to assume that the pattern of promotions and pay growth would be the same at all outside firms. The dots come from a binned scatterplot and the line is a line of best fit. All estimates are relative to the same reference firm.

A Appendix Tables and Figures

Table A1: Reasons Workers Did Not Provide Firm Names

Reason	Share
Know companies, but survey interface was too difficult	7%
Not comfortable sharing this information	8%
Could not think of specific companies	38%
No interest in switching	47%
Observations	829

Note: This table tabulates the reasons workers declined to provide the names of firms they would apply to if they wanted to switch firms. All possible responses are listed.

Table A2: Counts by Firm

	All
	(1)
1 Time	2930
2-5 Times	711
6-10 Times	216
11-14 Times	49
15-19 Times	29
20-50 Times	54
50+ Times	36
Total	4025

Note: This table tabulates the number of times each firm was provided by a worker and was therefore ranked against other outside firms. **Note: this table is based on a preliminary data build and does not include the full set of firms.**

Table A3: Randomization of Wages Across Firms

	p-value (1)
Firm Wage Premium	0.471
Size	0.861
Median Wage	0.491
Mean Wage	0.528
Manufacturing Sector	0.941
Retail Sector	0.181
Professional Sector	0.499
HQ in East Germany	0.805
Year Incorporated	0.293
Total Assets/Employee	0.196
Fixed Assets/Employee	0.235

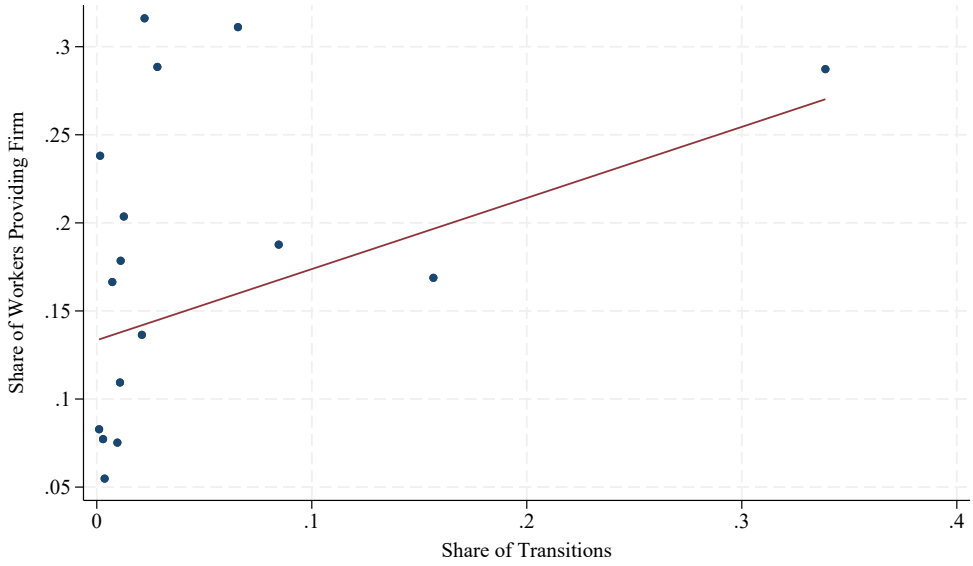
Note: We assess the randomization of raises to firms by regressing each of the provided characteristics on the provided wage offer. Column 1 presents the p-value from a test that the slope on the provided wage offer is 0.

Table A4: Classifying Job-to-Job Moves: Robustness to Using Alternative Estimates of Amenity Values

	Change in Amenities			
	>2% Cut	<2% Change	>2% Raise	Total
	(1)	(2)	(3)	(4)
A. Change in Own Wage				
>2% Cut	1.9%	19.9%	1.5%	23.3%
<2% Change	1.9%	32.2%	1.6%	35.7%
>2% Raise	4.9%	31.8%	4.3%	41.0%
Total	8.7%	84.0%	7.4%	100.0%
B. Change in Firm Wage Premium				
>2% Cut	3.7%	1.6%	3.5%	8.8%
<2% Change	0.4%	80.9%	0.3%	81.7%
>2% Raise	4.7%	1.2%	3.7%	9.5%
Total	8.8%	83.7%	7.5%	100.0%
C. Change in Firm Median Wage				
>2% Cut	3.7%	1.6%	3.5%	8.8%
<2% Change	0.4%	80.9%	0.3%	81.7%
>2% Raise	4.7%	1.2%	3.7%	9.5%
Total	8.8%	83.7%	7.5%	100.0%
D. Change in Firm Mean Wage				
>2% Cut	3.7%	1.6%	3.4%	8.7%
<2% Change	0.4%	80.9%	0.4%	81.7%
>2% Raise	4.7%	1.2%	3.7%	9.5%
Total	8.8%	83.7%	7.5%	100.0%

Note: This table reports the share of job-to-job transitions according to the change in wage and amenity values. The sample includes all full-time job movers between 2010 and 2019 who moved between firms for which we observe amenity values. All statistics use the amenity values which do not include wage growth; the panels use different definitions of a firm's wage policy. Our main results are presented in Table 4. Transitions above the greyed-out diagonal are to lower quality firms; transitions below the greyed-out diagonal are to higher quality firms.

Figure A1: Relationship Between Stated and Revealed Destinations



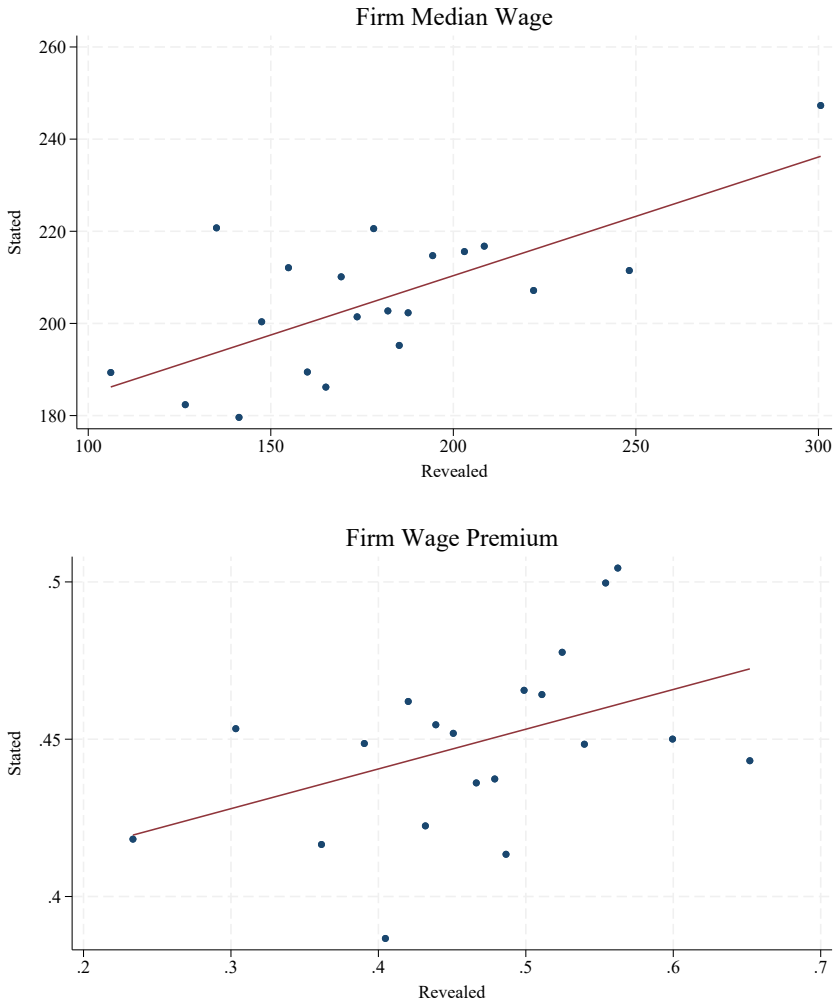
Note: For each origin-destination pair we calculate the share of workers at the origin firm who move to a given destination firm. We then calculate the share of workers at this firm who name each destination firm as a place they would apply if they wanted to switch firms. We present a binned scatterplot of the share of workers providing each destination (y-axis) against the share moving to that firm (x-axis). The mobility data are from 2010-2019. The stated application data are from 2022 and 2024.

B Relationship Between Provided Firms and Observed Moves

In this Appendix we document that the characteristics of the firms workers provide in the survey look similar to the firms that previous workers from their firm have previously moved to.

Figure A2 shows that there is a strong positive relationship between the wage policies of provided firms (either measured by the median wage or the AKM wage premium) and those associated with previous transitions. Tables **??** and **??** show a similar patterns for sector and size.

Figure A2: Stated and Revealed Transitions: Wages of Destination Firms



Note: This figure compares the wage policies of firms associated with observed transitions (x-axis) and with stated applications (y-axis). For each firm we compute the average wage premium or wage of where workers from that firm move. We then compare these averages with the average characteristics of firms provided by workers who work at that firm.

C Additional Results and Analysis

C.1 Motivation For Not Estimating Model Based on Stated Firms

An alternative approach would be to estimate firm amenity valuations using the methodology of Sorkin (2018), under the assumption that workers strictly prefer the firms they list in the survey to their current employers. If this assumption held, the share of workers at firm i who list firm j as a desired employer relative to the share of workers at firm j who list firm i could be used to estimate total valuations. However, this relationship breaks down if some workers prefer to remain at their current firm at the equilibrium wage.

Even if all workers preferred the outside firm, stated preferences alone would only identify flow-relevant valuations—that is, valuations that incorporate workers' beliefs about their probability of receiving an offer. If application decisions reflect expectations about hiring probabilities, the estimated valuations will systematically diverge from true underlying preferences. Without additional data or assumptions on perceived offer probabilities, these estimates conflate firm desirability with job access constraints, making it difficult to recover the full distribution of firm amenities.

Previous work supports these concerns. Caldwell et al. (2024b) document that a substantial share of workers prefer to stay at their current firm rather than accept an outside offer. Additionally, responses from the follow-up survey indicate that a large share of workers explicitly consider their likelihood of receiving an offer when deciding where to apply. Importantly, workers do not believe hiring probabilities depend solely on individual skills or job fit. Instead, most report that high-wage firms attract a larger pool of qualified applicants per vacancy, suggesting that job queues and firm hiring behavior systematically shape application decisions.

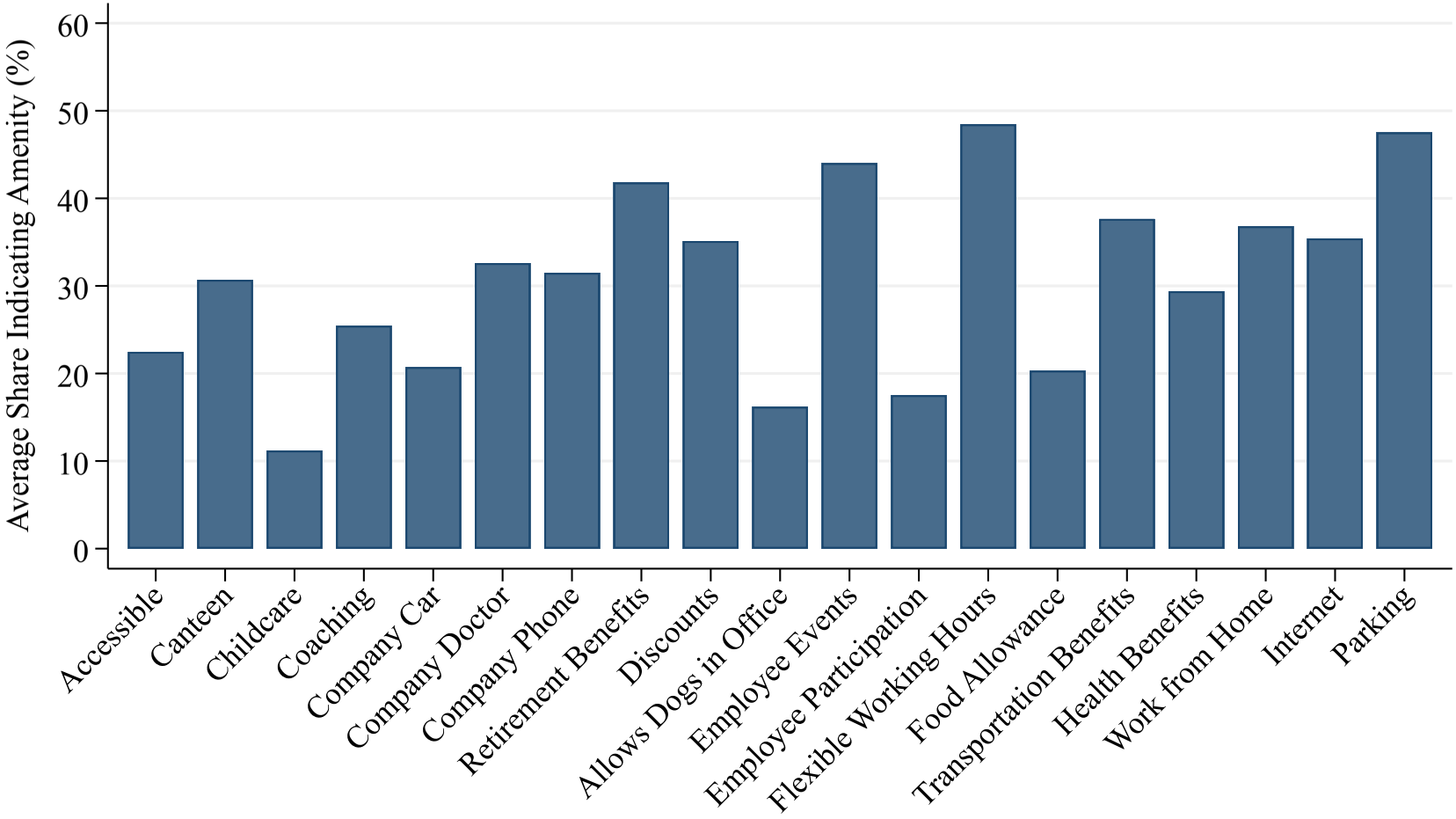
These findings reinforce the value of using discrete choice experiments, which allow us to estimate firm amenity values without relying on assumptions about offer probabilities or equilibrium mobility patterns.

C.2 Description of Kununu Data

To better understand the types of amenities offered by different employers, we leverage data from kununu, a leading employer rating platform in Germany. Kununu allows current and former employees to rate their workplace across multiple dimensions and to indicate whether their employer offers a specific set of amenities. These data provide an externally validated, worker-reported source of firm characteristics that complement our survey and administrative data. Because the information is public and generated by employees, it captures workers' perceptions of actual workplace offerings, rather than relying on employer-provided descriptions that may be shaped by marketing or compliance incentives.

The platform includes binary indicators for a wide range of specific amenities, such as flexible working hours, remote work options, childcare services, transportation and food benefits, coaching opportunities, and participation in decision-making. Figure A3 summarizes the prevalence of each reported amenity across the firms in our sample. The most commonly reported amenities are flexible working hours (over 60% of firms), employee events (over 50%), and remote work options (just under 50%). Other amenities—such as access to a company doctor, food allowances, and coaching—are less common but still present in a nontrivial share of firms.

Figure A3: Averages of Kununu Amenity Responses, Weighted by Number of Reviews



Note: Kununu reports the percentage of reviewers at each firm who indicate the firm offers each amenity. Each bar gives the mean percentage for the indicate amenity, weighted by the number of employee reviews of each firm.

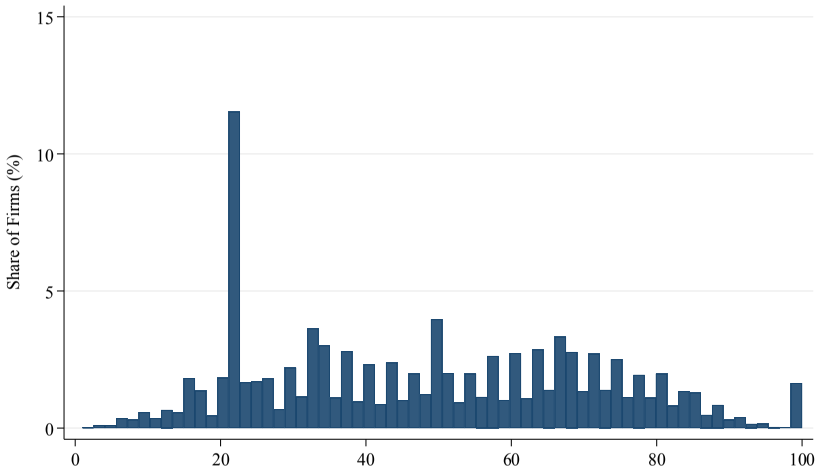
Figure A4 illustrates the share of employees at each firm who report that a given amenity is offered by their employer. We focus on four of the amenities included in the previous graph: flexible working hours, work from home, childcare, and coaching. As this figure illustrates, the distributions are not concentrated solely at 0% or 100%, but instead display substantial mass in intermediate ranges. This suggests that, for many firms, there is not unanimous agreement among employees about whether an amenity is offered, reflecting either differences in access across employees or differing perceptions of firm offerings.

For example, Panel A shows the distribution of childcare availability. While many firms have zero reports of childcare being offered, a considerable number fall in the middle of the distribution—firms where, say, 20% to 60% of employees confirm the presence of this benefit. This pattern likely reflects variation in awareness, eligibility, or usage. Panel D, which presents coaching opportunities, displays a similar pattern: few firms receive confirmation from all employees, but many receive affirmation from a subset, indicating that this amenity may be more selectively offered or more unevenly recognized.

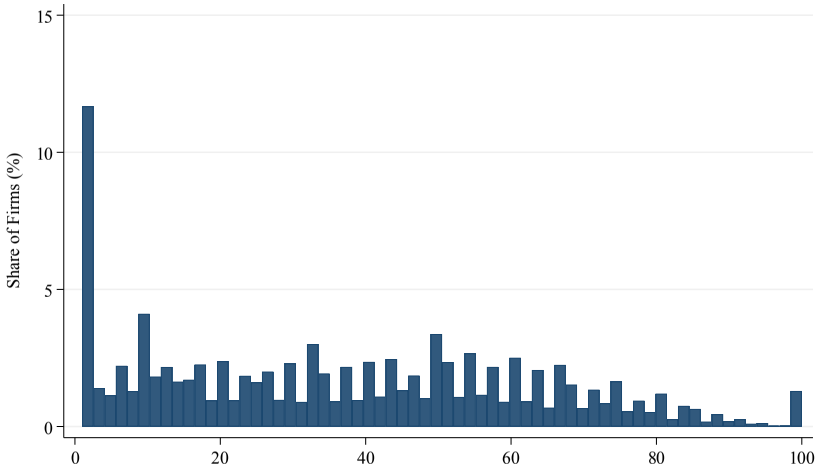
Even for more common amenities such as flexible working hours and home office options (Panels B and C), we observe a wide spread of confirmation rates across firms. While many firms have a majority of employees reporting availability, relatively few reach full consensus. These patterns suggest that kununu data capture real within-firm variation in the perceived or experienced availability of amenities. As a result, these data offer a more nuanced view of how amenities are distributed and recognized within firms.

Figure A4: Distribution of Kununu Amenity Responses

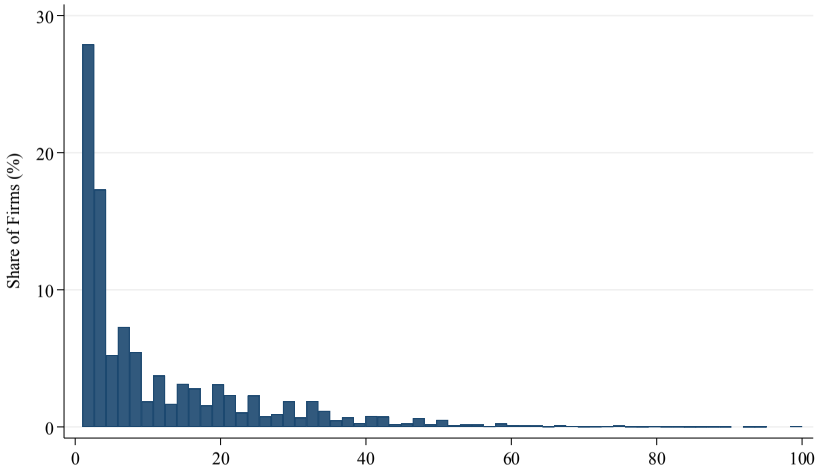
A. Flexible Working Hours



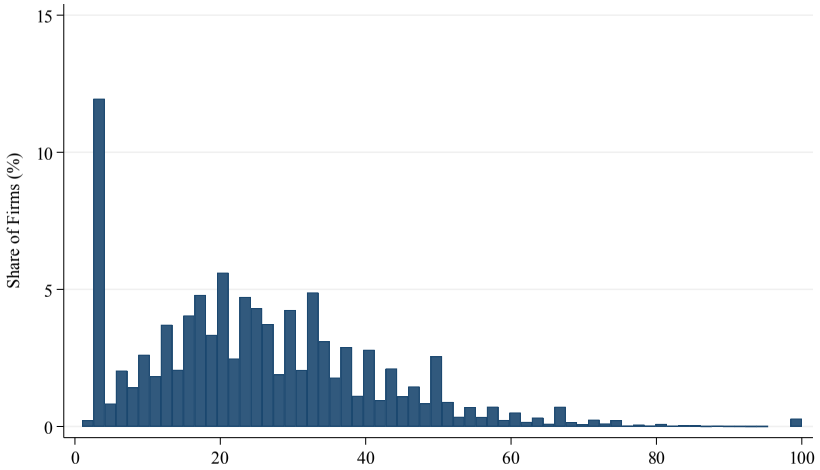
B. Work from Home



C. Childcare



D. Coaching



Note: Each panel reports the distribution of the amenity indicated. Each bar reports the percent of firms for which the percent of reviewers on the x-axis indicated the firm offers the benefit, weighted by the number of employee reviews of each firm.