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Abstract

We examine how workplace norms shaped by supervisors affect South Korea’s low fertility rates. We find that an authoritarian supervisory style—characterized by mandatory after-work gatherings and inflexible work arrangements—significantly reduces desired fertility among female workers. This decline stems from the difficulty of balancing work and family under such management, a challenge amplified by unequal household duties and rigid labor markets. Overall, our study shows that workplace interactions extend beyond wages and productivity, reshaping personal and family life with important consequences for the broader economy.

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1 Introduction

South Korea’s total fertility rate fell to 0.72 in 2023, the lowest in the world. Earlier declines were driven mainly by delayed childbirth among women in their twenties. In recent years, however, fertility has fallen further because of a sharp drop in births among women in their early thirties—a group that had previously offset fertility declines among younger cohorts. This shift coincides with a rise in labor force participation among these women, from 58.7% in 2015 to about 70% in 2023 (Figure 1). This negative correlation suggests a close link between the fertility crisis and the workplace environment.

While the tension between career and family is well documented, the specific mechanisms driving this conflict remain underexplored. Existing studies focus mainly on government or firm-level policies, yet persistent low fertility suggests that these measures do not fully capture the binding constraints within the workplace. In this paper, we show that immediate supervisors play a central role in shaping work–family conflict. We distinguish between two workplace norms set by supervisors: authoritarian and non-authoritarian. Authoritarian supervisors restrict flexible work arrangements, discourage employees from leaving before they do, and mandate attendance at after-work social gatherings. Our empirical evidence shows that when working women in their thirties are supervised by an authoritarian supervisor, their desired fertility falls sharply—by as much as half.

To study the incentives and trade-offs faced by working women in their thirties, we require data that capture both workplace conditions and family life. The Korean Women Management Panel (2020–2022) provides such a setting. The panel includes rich information on working hours, earnings, working conditions, employment history, fertility, home production, and self-reported work–life balance. Crucially, it asks respondents to evaluate the supervisory style of their immediate supervisors. Using these measures, we conduct a cluster analysis to classify supervisors and find that about 22% exhibit an authoritarian style.

To identify the causal impact of supervisory style on fertility, we exploit within-firm variation us-

ing three strategies. First, we compare workers who enter the same firm in the same year. Following Lazear et al. (2015), we restrict the sample to recent hires; because firms have limited information on new recruits, assignment to supervisors contains a substantial random component, mitigating endogeneity. Second, we estimate how changes in supervisory style affect desired fertility, controlling for individual fixed effects and firm-level family-friendly policies. Third, we implement a difference-in-differences design focusing on employees who switch from non-authoritarian to authoritarian supervisors. Across all specifications, we find that authoritarian supervision significantly diminishes desired fertility among women, an effect driven primarily by married women with zero or one child. Conversely, we find no statistically significant effect for men.

We investigate the mechanisms driving this result by examining two potential channels. First, we test for a compensating differential, asking whether female workers endure authoritarian supervision—and the associated work–family conflict—in exchange for higher wages or promotion opportunities. We find no evidence of such a trade-off. Female workers supervised by authoritarian supervisors receive no income premium and, in fact, reduce their working hours. We also rule out gains in upward mobility: while authoritarian supervision does not dampen career aspirations (desired job rank), it significantly reduces the perceived probability of advancement. Furthermore, we find that a transition to an authoritarian supervisor erodes attachment to the firm.

Second, we examine whether women reduce fertility intentions due to intensified work–family conflict. We hypothesize that authoritarian supervisors exacerbate this conflict by enforcing rigid norms and limiting flexibility. The data supports this channel: female workers under authoritarian leadership are significantly more likely to report work–life imbalance and high turnover intentions. Crucially, authoritarian supervisors act as gatekeepers who restrict access to institutional support, effectively nullifying firm-wide family-friendly policies. For instance, female workers report substantial difficulty utilizing parental leave, even when such provisions are formally available.

We further show that these conflicts are amplified by rigidities in household arrangements and the labor market. In South Korea, prevailing social norms constrain husbands' contributions to household labor, inhibiting the internalization of the opportunity cost associated with their spouses' careers, thereby generating inefficient household time allocation in dual-earner households (Myong et al., 2021). Consistent with these constraints, female workers' time devoted to home production is largely inelastic and does not decline significantly under authoritarian supervision.

Given the substantial costs of authoritarian supervision—including lower fertility and heightened work–family conflict—one might expect female workers to switch jobs. We argue, however, that labor market rigidities limit outside options and intensify the problem. In South Korea, workers hold an average of only two jobs by age 40, roughly half the number observed among young workers in the United States (Neal, 1999). Job transitions also take significantly longer for women, particularly when separations are driven by childcare needs. Consistent with these constraints, we find that the negative fertility effect of authoritarian supervision is concentrated in low-mobility industries.

Finally, we present suggestive evidence that younger cohorts—who have been at childbearing ages in recent years—place greater value on autonomy and less emphasis on hard work as the primary driver of success. Younger women also hold significantly more egalitarian gender views, reflecting a generation that is increasingly autonomous and career oriented. As a result, authoritarian supervision creates a sharper mismatch with their intrinsic values than it did for earlier generations.

Overall, our study shows that the characteristics of individuals encountered in the workplace influence outcomes far beyond wages and productivity. While prior research emphasizes their role in shaping professional output, we demonstrate that these interactions also fundamentally reshape personal and family life, with important implications for the broader economy.

Our study provides a microfoundation for the literature on work–family conflict and the “child penalty.” Goldin (2021) attributes gender gaps in careers to jobs that reward long and inflexible hours,

forcing household specialization. We refine this view by showing that such time-demanding job characteristics are not purely inherent to the job but are shaped locally by the immediate supervisor. While Doepke and Kindermann (2019) find that fertility declines when women bear a disproportionate share of domestic duties—a prevalent condition in East Asia—we demonstrate that authoritarian supervisors exacerbate this constraint by limiting the workplace flexibility and institutional support essential for managing this dual burden. Moreover, although Hotz et al. (2018) find that family-friendly firms reduce gender gaps, our results indicate that authoritarian supervisors can effectively neutralize firm-level policies, serving as managerial gatekeepers who block access to flexibility despite formal mandates. Finally, our analysis of workplace pressure relates to Johnsen et al. (2024), who examine how implicit tournaments drive male paternity-leave decisions. While they find that men capture earnings gains when peers take leave (thereby reducing competition), we show that for women, increased pressure suppresses fertility intentions without yielding any compensating income or promotion premia.

We extend the personnel economics literature by showing that the influence of supervisors extends well beyond conventional labor-market outcomes. Lazear et al. (2015) establish that supervisors play a central role in shaping worker productivity, while Bloom and Van Reenen (2007), Artz et al. (2017), and Frederiksen et al. (2020) document that management practices and supervisor quality significantly affect firm performance and worker well-being. We contribute to this literature by identifying a novel, nonpecuniary consequence of supervisory style: fertility. We show that authoritarian supervision creates a negative externality that goes beyond immediate productivity effects.

Finally, we contribute to the growing literature on the structural and cultural drivers of South Korea’s ultra-low fertility. Recent studies examine multiple dimensions of this crisis, including status externalities in education (Kim et al., 2024), the role of rigid social norms (Myong et al., 2021) and financial incentives and gender preferences (Kim, 2024). This literature analyzes fertility within a

household resource-allocation framework, emphasizing intrahousehold time allocation, childcare costs, and the income effects of pronatalist policies. We complement existing explanations by introducing mechanisms originating from firm-side characteristics and showing that factors outside the household also shape fertility decisions. In particular, we show that demand-side mechanisms—such as authoritarian management styles combined with rigid labor markets—raise the non-pecuniary costs of childbearing by intensifying workplace pressure and exacerbating work–family conflict, thereby discouraging fertility.

This paper is organized as follows. Section 2 describes the data. Section 3 presents the empirical strategy, and Section 4 reports the main results. Section 5 discusses the mechanisms underlying the empirical findings, which are empirically tested in Section 6. Section 7 discusses policy implications, and Section 8 concludes.

2 Data

We use data from the Korean Women Manager Panel (KWMP) for 2020–2022. The survey draws a representative sample of firms with more than 100 regular employees as of 2020. Within each firm, full-time employees—defined as working at least 30 hours per week—at or above managerial levels are sampled, with female managers intentionally oversampled. The survey also collects firm-level information from human-resources officers and follows the same workers and firms over time.¹ The worker-level data provide rich information on working conditions, career development, and work–life balance.

While administrative data offer large samples, they often lack qualitative information about the workplace. For example, Lazear et al. (2015) use administrative records that include supervisor identifiers, but a supervisor’s “quality” is inferred from worker output through fixed effects and therefore provides little insight into how or why a supervisor is effective. Our data address this

¹The panel structure is similar to that of the National Longitudinal Survey of Youth (NLSY) in the United States.

limitation by supplying rich qualitative information on workplace practices. Moreover, our data are broadly representative of Korean firms. Table 1 reports the distribution of firms by industry and firm size in 2020, alongside national benchmarks. The KWMP sample covers approximately 3.4 percent of South Korean firms with 100 or more employees and closely mirrors the national distribution across industries and firm sizes. Although firms with 100 or more employees account for less than 1 percent of all firms in Korea, they employ about 30 percent of the total workforce.²

2.1 Measuring supervisors' Supervisory Style

The key variable in our analysis is the supervisory style of each worker's immediate supervisor. The survey asked workers to respond to five statements:

1. My immediate supervisor treats male and female employees equally.
2. My immediate supervisor allows flexibility in working hours, vacation plans, and other personal matters.
3. My immediate supervisor does not require attendance at after-work social events.
4. My immediate supervisor does not object if I leave before they do.
5. My immediate supervisor listens to my concerns.

Responses were recorded on a five-point scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). In each survey year, we characterize each worker by the vector of responses to these items.

Figure 2(a) reports the correlations among responses to the five supervisory-practice questions. Correlations are high across all items. For example, supervisors who allow flexible vacation planning also tend not to require attendance at after-work social gatherings, and vice versa. Figure 2(b) shows the joint distribution of responses to Q4 and Q5. Two patterns emerge. First, few respondents select

²Source: Survey on Labor Conditions by Establishment, Ministry of Employment and Labor (MOEL).

1 (“strongly disagree”) or 2, indicating that most variation lies between 3 and 5. Second, consistent with panel (a), responses to Q4 and Q5 are strongly correlated. Similar joint distributions appear for any pair of questions: responses cluster between 3 and 5 and exhibit strong positive correlation across items.

To construct a consolidated measure of supervisory style, we conduct a cluster analysis of responses to the five questions above. The analysis groups observations by minimizing the Euclidean distance within clusters. Our objective is to identify the smallest number of clusters that captures distinct supervisory types. After several specifications, we find that three clusters provide a clear and interpretable classification. To obtain a comprehensive view of supervisory styles, we include all available observations in the clustering procedure, regardless of workers’ gender or age.

Figure 3 presents the results of the cluster analysis. The first group, shown by the green bars, displays distinct response patterns. In particular, the share of workers who “strongly disagree” or “disagree” with the statement, “My supervisor allows me to adjust my working hours, vacation plans, and other personal matters flexibly,” is substantially higher in Cluster 1 than in Clusters 2 and 3. A similar pattern appears for the statement, “My supervisor does not object if I leave before they do.”

More broadly, supervisors in Cluster 1 exhibit a style that restricts workers’ discretion and emphasizes presenteeism—features that are not directly tied to productivity (Johnsen et al., 2024). We therefore define a dummy variable equal to one if a supervisor belongs to Cluster 1 and classify these supervisors as authoritarian.

Approximately 22% of supervisors in the full sample are classified as authoritarian. The same proportion appears in our primary sample: among female managers under age 40 as of 2020, 22% were assigned to an authoritarian supervisor in the baseline year.

The cluster results closely mirror the patterns in Figure 2, where responses to the five questions are highly correlated. The analysis effectively orders supervisors along this dimension, with Cluster

1 the most authoritarian and Cluster 3 the most liberal. Consistent with this structure, robustness checks using additional clusters yield similar results, producing finer distinctions along the authoritarian–liberal spectrum.³

To assess whether firm-specific factors account for this variation, we regress the authoritarian-supervisor indicator on a constant and firm fixed effects. The resulting R^2 of 0.145 indicates that firm characteristics explain only a small share of the variation in supervisory style, with substantial heterogeneity occurring within firms. Accordingly, our empirical analyses rely primarily on within-firm variation in supervisor types.

Note that our measure captures workers’ subjective assessments of supervisory style. Although any change in this measure reflects a meaningful shift in the perceived work environment—regardless of whether it stems from a new supervisor or a reassessment of the current one—we provide evidence that these variations are strongly associated with actual supervisor turnover. To validate this, we define a ‘Supervisor Transition Proxy,’ an indicator equal to one if the respondent was promoted, the supervisor’s gender changed, or the team size changed between 2020 and 2022. Among respondents who reported supervisor characteristics in both waves, 21 percent changed their subjective evaluation. Notably, 87 percent of these cases coincide with an objective supervisor status change, as captured by the Supervisor Transition Proxy. This high correspondence suggests that variations in the subjective measure largely capture actual supervisor turnover.

2.2 Desired Fertility

A key outcome variable in our analysis is desired fertility, defined as an indicator for whether a worker plans to have a child within the next three years. We focus on desired rather than actual fertility for two reasons.

First, fertility decisions typically involve substantial planning, especially in recent years when

³Given the high correlations among the five questions, excluding one or two items and re-running the cluster analysis yields similar classifications.

most women have no more than two children. In our sample, only 1% and 0.3% of married women who reported no plans to give birth within three years actually gave birth in the following year and two years later, respectively. By contrast, among women who reported plans to give birth within three years, 9.4% gave birth within one year and 19.1% within two years. These patterns indicate that while not all plans are realized immediately, women without fertility intentions are highly unlikely to conceive.

Second, there is an inherent lag between the decision to have a child, conception, and birth. As a result, contemporaneous associations between supervisory style and birth outcomes may understate the role of workplace norms in shaping fertility decisions. Focusing on desired fertility accounts for this lag and provides a clearer measure of how workplace environments influence fertility intentions.

In 2020, 31% of female managers under age 40 reported an intention to have a child within the next three years.

3 Empirical Specifications

We examine how supervisors' management styles affect female workers' desired fertility. A central challenge is that supervisors are not randomly assigned, raising concerns that unobserved factors may influence both supervisor assignment and fertility intentions. To address this issue, we implement three complementary empirical strategies. Although no single approach yields ideal experimental conditions, consistent results across these distinct sources of variation provide converging evidence of a causal relationship.

Following Lazear et al. (2015), we first exploit variation among recent cohorts of new hires. The identifying assumption is that firms have less information about new employees than about incumbents; as a result, the assignment of supervisors to new workers contains a larger random

component. We estimate the following model:

$$\text{Desired Fertility}_{i,t} = \beta \mathbb{I}(\text{Authoritarian}_{i,t}) + \gamma X_{i,t} + \tau_{f,c} + \epsilon_{i,t}, \quad (1)$$

where desired fertility is regressed on an indicator for having an authoritarian supervisor. The vector $X_{i,t}$ includes marital status and other demographic controls. We include firm-by-cohort fixed effects ($\tau_{f,c}$) and restrict the sample to workers who joined the firm within one year of the survey. This restriction increases the likelihood that workers are matched with their initial supervisors and plausibly reduces bias from systematic sorting based on performance or preferences.

Second, we exploit within-worker variation over time among employees who remain at the same firm between 2020 and 2022. This specification accounts for time-invariant unobserved heterogeneity:

$$\text{Desired Fertility}_{i,t} = \beta \mathbb{I}(\text{Authoritarian}_{i,t}) + \gamma X_{i,t} + \tau_i + \tau_f + \tau_t + \epsilon_{i,t}, \quad (2)$$

where τ_i and τ_f denote individual and firm fixed effects, respectively, and τ_t denotes year fixed effects. By following the same workers over time, this design controls for time-invariant worker characteristics (such as inherent career ambition) and mitigates bias arising from systematic differences in subjective evaluations across individuals. Worker mobility across firms is rare in our data during this period, ensuring a stable panel for estimation.

Crucially, to account for time-varying firm characteristics that may simultaneously affect fertility decisions, we exploit detailed survey data on firm-level family-friendly policies. The vector $X_{i,t}$ includes time-varying indicator variables capturing the implementation of 13 distinct policies across four dimensions. These include flexible work arrangements (staggered commuting hours and flexible work systems); leave policies (maternity, parental, miscarriage or stillbirth, sick, training or sabbatical, and short- and long-term family-care leave); workload-reduction measures (reduced hours during pregnancy and for childcare); and support systems (workplace childcare facilities and childcare sub-

sidies). Controlling for these policies ensures that the estimated effect of authoritarian supervision is not confounded by contemporaneous changes in the firm’s family-support environment.

Finally, we refine our analysis by focusing on a subset of workers who experience a change in supervisory style. We restrict the sample to employees who had a non-authoritarian supervisor in the baseline year (2020). The treatment group consists of workers whose supervisor becomes authoritarian by 2022, while the control group includes those whose supervisor remains non-authoritarian.

We estimate the following difference-in-differences (DiD) specification:

$$\text{Desired Fertility}_{i,t} = \beta (\text{Treat}_i \times \text{Post}_t) + \gamma X_{i,t} + \tau_i + \tau_f + \tau_t + \epsilon_{i,t}, \quad (3)$$

where Treat_i is an indicator for workers who switch to an authoritarian supervisor, and Post_t is an indicator for the year 2022. Including the control group allows us to net out aggregate time-specific shocks—most notably those associated with the COVID-19 pandemic—that affected fertility intentions for all workers during this period.

A potential threat to our identification strategy is endogenous sorting: workers who plan to conceive may actively seek out nonauthoritarian supervisors. To address this concern, we refine the sample using a survey-based measure of supervisor satisfaction. Specifically, we restrict the analysis to individuals who report low to moderate satisfaction with their immediate supervisor, excluding those with high satisfaction scores on the five-point scale in 2022. The premise is that workers who are not highly satisfied with their supervisors are unlikely to have voluntarily selected them. By focusing on these plausibly involuntary matches, we mitigate concerns that supervisory assignment is driven by workers’ preferences for management styles aligned with their fertility goals.

A related concern is that even if the match is involuntary from the worker’s perspective, firms may strategically assign workers to supervisors to maximize productivity. If such assignments are correlated with workers’ underlying fertility preferences, our difference-in-differences estimates could

be biased. To assess this possibility, we compare pre-treatment characteristics of the treated and control groups.

Table 2 reports baseline (2020) summary statistics for female managers under age 40. The treated and control groups are well balanced across a wide range of demographic, professional, and household characteristics. We find no statistically significant differences in key confounders, including age, marital status, number of children, and baseline fertility intentions. Importantly, measures of work-life balance—daily commuting time, spousal support, and time spent on housework—are also statistically indistinguishable across groups, indicating comparable domestic burdens. Overall, the balance in observable characteristics supports the assumption that supervisor assignment was not systematically related to worker traits that influence fertility.

4 Estimation Results

Table 3 reports estimates from linear probability models examining the effect of authoritarian supervision on female workers’ fertility intentions. Across all three identification strategies, we find a consistent and statistically significant negative association between having an authoritarian supervisor and the probability of planning to have a child.

Column (1) corresponds to the analysis of new hires (Equation 1), which exploits quasi-random supervisor assignment among workers with short tenure. We find that having an authoritarian supervisor is associated with a statistically significant reduction in the probability of planning to have a child. Although the small sample size warrants caution in interpreting the magnitude of the estimate, the direction of the effect is clear. This result provides cross-sectional evidence that the negative association between authoritarian supervision and fertility intentions emerges even among recent entrants to the firm.

Columns (2) and (3) apply individual fixed effects (Equation 2) to workers who switch supervisors

within the same firm. Column (2) shows that moving to an authoritarian supervisor reduces the probability of planning to have a child by 13 percentage points. This effect remains in Column (3) after controlling for firm-level family-friendly policies, indicating that the negative impact of authoritarian supervision operates independently of formal corporate support.

Columns (4) and (5) report results from the difference-in-differences specification (Equation 3). The coefficient on the interaction term ($\text{Treat} \times \text{After}$) is -0.11 in Column (4) and -0.13 in Column (5), both statistically significant at the 5% level. These estimates indicate that, relative to the control group, treated workers experience an 11–13 percentage point decline in the probability of planning to have a child. The magnitudes closely align with the fixed-effects estimates in Columns (2) and (3). In particular, the -0.13 coefficient corresponds to an approximate 40% reduction in fertility intentions relative to the sample mean, highlighting the substantial significance of supervisory style for family-planning decisions.

Table 4 examines whether the negative relationship between authoritarian supervision and desired fertility is driven by other observable supervisor characteristics. Column (1) addresses the concern that the observed effect may be a proxy for supervisor gender. In our data, authoritarian leadership is not strongly correlated with gender: the proportion of female supervisors is nearly identical among authoritarian (27%) and non-authoritarian (28%) supervisors. Consistent with this lack of correlation, the coefficient for having a male supervisor is statistically indistinguishable from zero in the regression. Importantly, the coefficient for authoritarian leadership remains large and statistically significant, suggesting the result is not driven by supervisor–worker gender matching.

Column (2) includes a control for general supervisor satisfaction (measured on a five-point scale) to distinguish the specific impact of the authoritarian style from general dissatisfaction with the supervisor. Notably, the coefficient for supervisor satisfaction is near zero, and its inclusion does not attenuate the negative effect of the authoritarian style. This finding implies that the decline in desired

fertility is not a byproduct of general workplace dissatisfaction or personal dislike of the supervisor, but is specifically driven by the norms or constraints imposed by an authoritarian supervisory style. Across both specifications, the estimated magnitudes remain quantitatively similar to the baseline estimates in Table 3.

Table 5 reports heterogeneity analyses and a placebo test examining the effect of supervisory style on desired fertility. Column (1) presents results for the primary sample—female employees under age 40—while Column (2) replicates the analysis for male employees under age 40 as a placebo test.

Column (1) examines heterogeneity in treatment effects by marital status and family size. The coefficient on the triple interaction term $\text{Treat} \times \text{After} \times \text{InitiallyMarried} \times \text{NoOrOneChild}$ is negative and statistically significant at the 1% level. This result indicates that authoritarian supervision reduces desired fertility primarily among married female employees with zero or one child—the group most likely to face immediate trade-offs between career advancement and additional childbearing. The baseline interaction term $\text{Treat} \times \text{After}$ remains statistically insignificant, suggesting that the effect is not uniform across all women but concentrated within this subgroup.

Column (2) reports a placebo test using male employees under age 40. If authoritarian supervision universally reduced fertility intentions, a similar pattern would emerge for men. Instead, the coefficient on $\text{Treat} \times \text{After}$ is statistically indistinguishable from zero. This null result suggests that the mechanism is not a general response to workplace conditions but is specific to female workers.

Collectively, the results provide robust evidence that authoritarian leadership significantly reduces fertility intentions. Across specifications—ranging from cross-sectional comparisons of recent hires to within-individual changes over time—the presence of an authoritarian supervisor is associated with a decline in desired fertility. These findings are not driven by supervisor gender dynamics or general dissatisfaction with the supervisor. Heterogeneity analyses reveal that the effect is concentrated among married women with zero or one child, who likely face the most acute work–family trade-offs.

Finally, a placebo test using male employees yields no significant effects, confirming that the adverse impact of authoritarian supervision is specific to female workers.

5 Mechanisms

In this section, we examine potential mechanisms underlying the link between supervisory style and female workers’ desired fertility. We develop a model to illustrate how working under an authoritarian supervisor influences fertility decisions.

Theoretical Framework

A supervisor’s management style is either non-authoritarian ($A = 0$) or authoritarian ($A = 1$). Management style determines how workers are evaluated and compensated. Under a non-authoritarian style, evaluation depends only on output, and compensation consists of output-based monetary pay. Accordingly, the worker has full autonomy over the choice of effort intensity. In contrast, an authoritarian supervisor restricts workers’ autonomy over effort choices and evaluates them based on both effort (input) and output. For instance, an authoritarian supervisor may evaluate workers based on observable efforts such as long working hours, remaining at work later than the supervisor, compliance with rigid schedules instead of flexible or remote arrangements, and participation in after-work drinking events. To model this restriction parsimoniously, we assume that authoritarian supervision imposes a minimum effort requirement.

Under an authoritarian style, compensation includes output-based monetary pay and a non-monetary utility cost from complying with the minimum effort requirement. Specifically, let $\bar{\epsilon}$ denote the minimum effort requirement imposed by an authoritarian supervisor. When $A = 1$, effort below the requirement incurs a utility cost of $\psi(\ln \bar{\epsilon} - \ln \epsilon), \mathbb{I}(\epsilon < \bar{\epsilon})$. Following Akerlof and Kranton (2005), we interpret this term as the utility loss from failing to conform to the “ideal worker” identity. The parameter ψ governs the magnitude of the disutility arising from failure to meet supervisor-imposed

identity norms. We assume $\psi > 0$, implying that any deviation from the norm generates psychological dissonance, strictly increasing in ψ .

Output (y) depends on the worker's ability (α), effort (ϵ), and the supervisory style (A):

$$y = \beta^A \alpha \ln(\epsilon). \quad (4)$$

Here, β captures the effect of authoritarian supervision on worker productivity relative to non-authoritarian supervision. Working under an authoritarian supervisor can affect worker productivity through managerial leverage (Garicano (2000)): strict supervision may improve knowledge transmission and problem-solving, thereby raising the marginal product of effort. If authoritarian supervision exhibits positive managerial leverage, then $\beta > 1$; otherwise, $\beta \leq 1$.

Workers earn a wage equal to their total output ($w = y$). Raising a child entails a fixed cost π , so consumption (c) is determined by the budget constraint $c = w - \pi(N + b)$, where N denotes the number of existing children and $b \in \{0, 1\}$ indicates a new birth. The utility from children is given by $\ln(\phi + N + b)$, where ϕ is a scale parameter. The disutility of effort takes the convex form $\frac{\Omega_{N,b}}{2}\epsilon^2$. The parameter $\Omega_{N,b}$ is strictly increasing in N and b , capturing the higher marginal opportunity cost of effort as family size grows. We assume $\Omega_{N,b}$ is invariant to supervisory style A . This assumption ensures that the mechanism isolates the effect of compensation differences across supervisory styles, holding the structural increase in effort costs following childbirth constant.

The worker's problem can be written as

$$\max_{\{b, \epsilon\}} u(c, b, \epsilon) = c - \psi(\ln \bar{\epsilon} - \ln \epsilon) \mathbb{I}(\epsilon < \bar{\epsilon}) \cdot A + \ln(\phi + N + b) - \frac{\Omega_{N,b}}{2}\epsilon^2,$$

where $c = w - \pi(N + b)$ and $w = \beta^A \alpha \ln(\epsilon)$. The optimal effort level is

$$\epsilon^*(A = 0) = \sqrt{\alpha/\Omega_{N,b}} \quad \text{and} \quad \epsilon^*(A = 1) = \sqrt{(\alpha\beta + \psi)/\Omega_{N,b}}. \quad (5)$$

Accordingly, the optimal output is

$$y^*(A = 0) = \frac{\alpha}{2} \ln\left(\frac{\alpha}{\Omega_{N,b}}\right) \quad \text{and} \quad y^*(A = 1) = \frac{\alpha\beta}{2} \ln\left(\frac{\alpha\beta + \psi}{\Omega_{N,b}}\right). \quad (6)$$

Equations (5) and (6) illustrate how supervisory styles shape worker effort and output. First, conditional on fertility choice b , effort is lower under authoritarian supervision if $\psi < \alpha(1 - \beta)$. Given that $\psi > 0$, this implies that under positive managerial leverage on productivity ($\beta > 1$), effort cannot be lower under authoritarian supervision.

The above equations also imply that higher marginal effort costs following childbirth, $\Omega_{N,1} > \Omega_{N,0}$ reduce both effort and output. Consequently, fertility choices depend on whether the utility gain from an additional child exceeds the compensation loss arising from reduced effort and the childcare cost π . For a given supervisory style A , the worker chooses $b^* = 1$ if and only if:

$$\left(\frac{\alpha\beta^A}{2} + A \cdot \frac{\psi}{2}\right) \ln\left(\frac{\Omega_{N,1}}{\Omega_{N,0}}\right) + \pi < \ln\left(\frac{\phi + N + 1}{\phi + N}\right). \quad (7)$$

The reduction in effort resulting from higher marginal effort costs after childbirth, $\ln\left(\frac{\Omega_{N,1}}{\Omega_{N,0}}\right) > 0$, generates two distinct types of opportunity costs. First, the term $\frac{\alpha\beta^A}{2} \ln\left(\frac{\Omega_{N,1}}{\Omega_{N,0}}\right) > 0$ captures the decline in wage—and thus utility from consumption—resulting from reduced effort. When $\beta > 1$, the opportunity cost of foregone labor income due to reduced effort after childbirth is higher under authoritarian supervision ($A = 1$) than under non-authoritarian supervision ($A = 0$); the opposite holds when $\beta < 1$. Second, under authoritarian supervision ($A = 1$), reduced effort after childbirth incurs an additional utility cost of $\frac{\psi}{2} \ln\left(\frac{\Omega_{N,1}}{\Omega_{N,0}}\right) > 0$ whenever effort falls below the required level.

In summary, authoritarian supervisory styles can reduce workers' fertility through two channels. First, when authoritarian supervision exhibits positive managerial leverage ($\beta > 1$), the reduction in labor income following childbirth is higher under this style. Second, even in the absence of positive managerial leverage under authoritarian supervision, utility losses from failing to meet the effort

norms can discourage fertility. In the following section, we examine whether these mechanisms are supported by the empirical evidence.

6 Empirical Evidence on Mechanisms

The theoretical model highlights two primary channels through which an authoritarian supervisory style ($A = 1$) may reduce fertility: If the authoritarian style generates positive managerial leverage, it amplifies the opportunity cost of reduced labor income following childbirth (the β channel), while minimum effort requirements impose additional utility losses when workers reduce their effort after childbirth (the ψ channel). In this section, we empirically test these competing hypotheses.

6.1 Testing the Income and Career Opportunity Channel

If authoritarian supervision raises workers' productivity and effort, thereby increasing earnings or improving career prospects, it may intensify the fertility–career trade-off and make workers more likely to forgo fertility under such supervision. We evaluate this channel by examining whether earnings or work engagement increase under authoritarian supervision.

First, we examine whether workers experience contemporaneous earnings gains when supervised by an authoritarian manager. Table 6 investigates the relationship between authoritarian supervision and economic outcomes. Column (1) of Panel A reports results for annual income, controlling for individual, firm, and year fixed effects. The coefficient on $\text{Authoritarian} \times \text{After}$ is close to zero and statistically insignificant, indicating no evidence of an earnings increase under authoritarian supervision.

On the other hand, column (2) of Panel A shows a statistically significant decline in weekly working hours among female workers under authoritarian supervision. As shown in Section 5, under positive managerial leverage on productivity ($\beta > 1$), effort cannot decline under authoritarian supervision. Interpreting working hours as an observable proxy for effort, this finding indicates a reduction rather

than an increase in effort, contradicting the hypothesis that authoritarian supervision exhibits positive managerial leverage.

When we restrict the sample to women who remain full-time in 2022, the estimates are small and statistically insignificant (column (3)). Taken together, columns (2) and (3) indicate that the decline in labor supply under authoritarian supervision is driven primarily by extensive-margin transitions into part-time work. Notably, although the 2020 baseline consists exclusively of full-time employees (working at least 30 hours per week), by 2022 roughly 10% of these women had reduced their hours below this threshold. The above results highlight that authoritarian supervision may accelerate transitions into part-time work. Overall, the findings suggest that the rigidity associated with authoritarian supervision may be incompatible with full-time employment for some women, thereby reducing their labor supply.

The results for male workers (Panel B) reveal a clear gender divergence in responses to authoritarian supervision. As with female workers, we find no evidence of an income premium associated with authoritarian supervision for men; the income coefficient is statistically insignificant. The labor-supply response, however, differs sharply. While the average effect on working hours is negligible (Column (2)), restricting the sample to full-time employees (Column (3)) shows that male workers significantly increase their weekly hours under authoritarian supervision. These patterns suggest that rigid supervision pushes female workers toward part-time work, while inducing male workers to work longer hours.

Worker effort is multidimensional and may not be fully reflected in working hours alone; commitment and motivation are also important components of effort that can also enhance productivity. To assess this possibility, we examine whether job attachment or employee engagement increases under authoritarian supervision. Contrary to this hypothesis, we find that worker engagement declines under authoritarian supervision (Table 7). Among female workers (Panel A), transitioning to an

authoritarian supervisor significantly erodes firm attachment; specifically, the reported sense of belonging declines by 0.25 points. Conversely, for male workers (Panel B), we find no significant effect on job attachment.

Second, we examine whether workers forgo fertility in exchange for improved career prospects. Even in the absence of immediate wage gains, workers may tolerate authoritarian supervision if it enhances promotion opportunities. We proxy for such opportunities using workers' career aspirations and their perceived likelihood of attaining them.

Column (1) of Table 8 reports results for career aspirations. Respondents state the highest hierarchical position they aim to achieve, classified into four categories—CEO, senior manager, junior manager, and no interest in hierarchical advancement—which we rank from highest (CEO) to lowest (no interest). Contrary to the hypothesis, we find no evidence that career aspirations rise under authoritarian supervision.

In column (2), we examine whether authoritarian supervision affects workers' perceived likelihood of attaining their desired position, measured on a five-point scale from 1 (very low) to 5 (very high), conditional on reported aspirations. The results indicate that authoritarian supervision reduces, rather than increases, the perceived probability of achieving one's career goals.

In summary, authoritarian supervision does not provide compensating career benefits. For female workers, it offers neither higher current wages nor a sense of career investment that might justify sacrificing fertility.

6.2 Testing the Norm-Based Utility Cost Channel

Having ruled out pecuniary motivations, we turn to the alternative hypothesis that authoritarian supervision raises the nonpecuniary utility cost of work, particularly when workers attempt to balance job demands with childcare responsibilities.

We first validate the presence of workplace pressure related to childcare responsibilities. Table

9 reports workers' perceptions of workplace policies. Even after controlling for individual–firm fixed effects, female workers supervised by authoritarian supervisors are significantly less likely to report that parental leave or flexible work arrangements are easy to use.

Crucially, the survey measures the perceived costs of using these policies. Workers supervised by authoritarian supervisors are significantly more likely to report that taking parental leave or using flexible schedules leads to disadvantages in performance evaluations. This evidence suggests that authoritarian supervision imposes high implicit penalties on work–family balance, causing workers to perceive policy use as a substantial career risk.

This pressure from authoritarian supervisors directly affects subjective well-being. Table 10 examines self-reported work–family conflict. Among female workers (Panel A), authoritarian supervision significantly intensifies these tensions. They are more likely to report that childcare responsibilities make work difficult, that household duties impair concentration, and—most critically—that they have considered quitting because of family demands.

6.3 The Role of Household and Labor Market Constraints

We examine why heightened work–family tension translates into lower fertility rather than adjustment along other margins, such as household reallocation or job separation. In an efficient household, spouses would adjust labor supply or home production to buffer shocks arising from the wife's workplace environment.

Table 11 tests this mechanism. We find that supervisory style has no significant effect on weekly household work hours for either female or male workers. This result suggests that households do not offset the utility costs imposed by authoritarian supervision, leaving female workers to bear the full burden of work–family conflict.

If working under an authoritarian supervisor imposes such high utility costs, why do female workers not switch jobs? The answer lies in the rigidity of the South Korean labor market, which

severely limits workers' outside options and constrains their ability to leave their current supervisors.

Figure 4 illustrates this structural rigidity. Panel A plots the cumulative number of firms workers have been employed at by age 40. The distribution is heavily skewed toward low mobility: more than 40% of workers remain with a single employer throughout their careers. On average, women and men work for only 2.19 and 2.03 firms, respectively—far below comparable figures for the United States, where young workers hold an average of 4.2 jobs by age 35 (Neal, 1999).

Panel B explains why mobility is particularly limited for women. It plots the average duration of unemployment between job transitions. Female workers face substantially higher frictions: for example, the gap between leaving a first job and starting a second averages about 1.2 years for women, nearly twice the 0.67 years observed for men. This pattern indicates that, for women, quitting a job entails a significant risk of prolonged unemployment rather than a smooth transition.

Table 12 further shows that these penalties are most severe when job separations are driven by family reasons. Women who leave employment because of childbirth or childcare experience an average unemployment spell of 3.4 years and return to jobs at significantly lower hierarchical ranks.

The labor market rigidity appears to be a binding constraint underlying our main results. In Figure 5, we stratify the sample by industry-level mobility. The negative effect of authoritarian supervision on desired fertility is concentrated in low-mobility industries (Industry B). By contrast, in high-mobility sectors (Industry A)—where the threat of worker turnover is more credible—the effect is substantially attenuated. These patterns suggest that labor market rigidity removes viable outside options for female workers, effectively leaving fertility reduction as the primary margin of adjustment under authoritarian supervision.

6.4 Sources of Utility Costs: Cohort Differences

Given that authoritarian leadership styles have been present for a long period, why might they be particularly relevant for explaining the recent decline in fertility in South Korea? We argue that the

answer lies in a growing cultural mismatch between traditional leadership styles and the values of younger female cohorts. In recent years, younger cohorts have placed greater value on autonomy, flexibility, and work–life balance. In this context, authoritarian supervisory styles—characterized by limited autonomy, an emphasis on input-based effort (such as in-office time), and collectivist norms—are likely to impose higher psychological costs on workers who value independence. As a result, exposure to authoritarian supervision can generate disproportionately higher utility costs for younger women today (a higher ψ in our model), making it a more salient factor in explaining recent fertility declines.

To support this hypothesis, Table 13 uses data from the World Values Survey to compare the values of the 1970–1979 birth cohort with those of the 1980–1995 cohort, which constitutes the primary demographic in our main analysis. The results reveal pronounced intergenerational shifts: the younger cohort exhibits significantly higher autonomy and assigns substantially less importance to hard work as a determinant of success.

Furthermore, younger women hold significantly more gender-neutral views. They are less likely to agree that “being a housewife is fulfilling” or that “men make better business executives than women.” These findings indicate that the younger cohort is more autonomous and career oriented. As a result, the rigidity of authoritarian supervision creates a sharper conflict with their intrinsic values than it did for earlier generations, raising utility costs and ultimately reducing fertility intentions.

7 Policy Implications

It is well established that work–family conflict adversely affects female workers, yet the mechanisms driving this conflict remain underexplored. Within this “black box,” we identify the immediate supervisor as a pivotal actor. Our analysis shows that even when firms adopt family-friendly policies, their effectiveness depends critically on the immediate supervisor. Authoritarian supervisors function

as bottlenecks, neutralizing these policies by imposing implicit penalties on their use. As a result, macro-level government mandates may fail when they are blocked at the micro level of team management. Policies aimed at increasing fertility therefore need to be paired with incentive structures that encourage managers to actively support their implementation.

This friction is exacerbated by labor market rigidity. In a flexible labor market, employees facing hostile supervision would sort into better-matched firms. In South Korea, however, rigid employment structures severely limit such mobility. Because female workers face substantial career penalties for quitting, they are often unable to exit workplace environments that suppress fertility.

Authoritarian supervision may be optimal from the firm’s private perspective when it effectively leverages workers’ productivity and effort. In traditional labor markets characterized by single-earner households with non-working spouses, such practices likely imposed little cost on fertility decisions. However, as female labor force participation has risen, authoritarian management has generated a substantial negative externality by intensifying work–family conflict and reducing fertility. Because firms do not internalize the social cost of this fertility decline, a market failure arises. Government intervention is therefore warranted to align private managerial incentives with social welfare—for example, through subsidies tied to the adoption of non-authoritarian or family-friendly management practices at the supervisor level.

8 Conclusion

We examine how workplace norms shaped by supervisors influence South Korea’s low fertility rates. We find that an authoritarian supervisory style—characterized by mandatory after-work gatherings and inflexible work arrangements—significantly reduces desired fertility among female workers. This decline is driven primarily by the increased difficulty of balancing work and family responsibilities under such management. These challenges are further compounded by limited sharing of household

duties and rigid labor market conditions in South Korea. Overall, our findings highlight that managerial style imposes significant demographic externalities beyond its immediate effects on productivity.

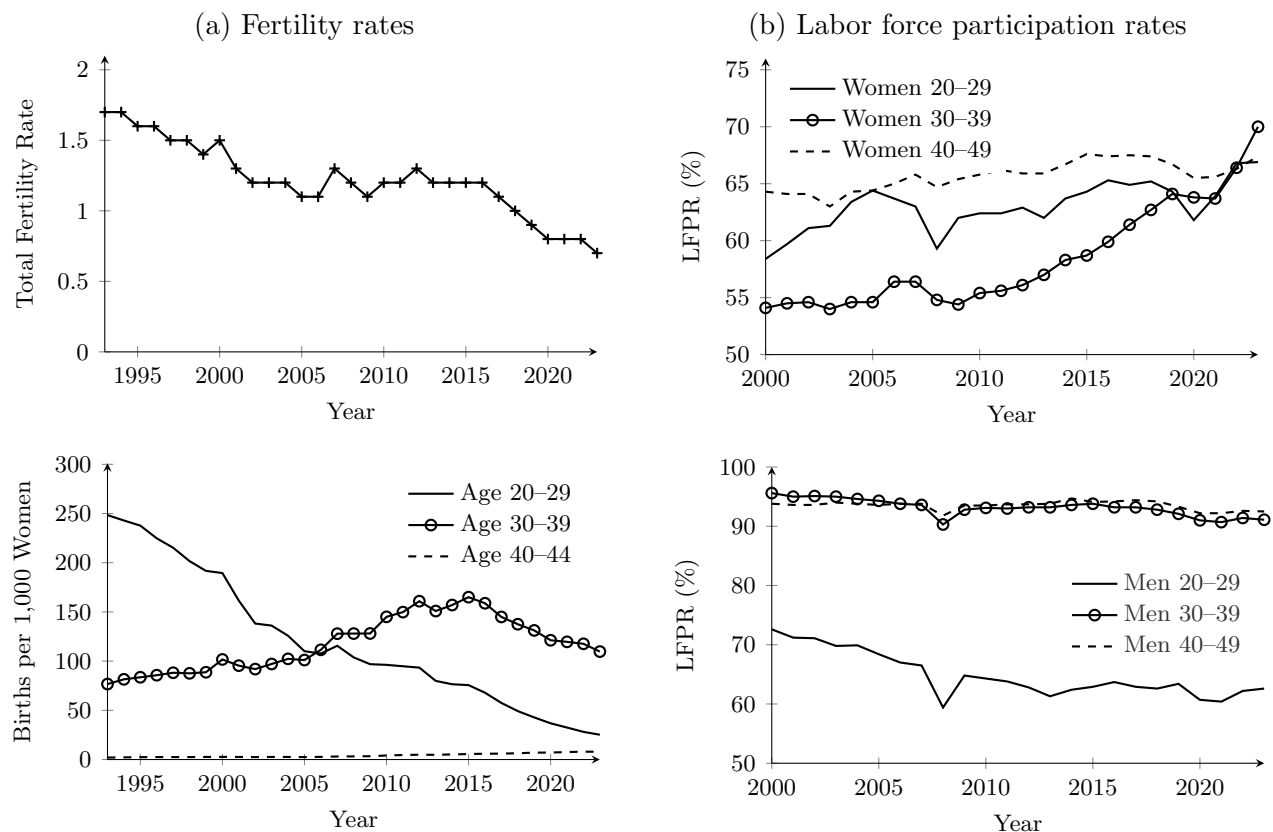
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Figures and Tables

Figure 1: Fertility and Labor Force Participation in South Korea



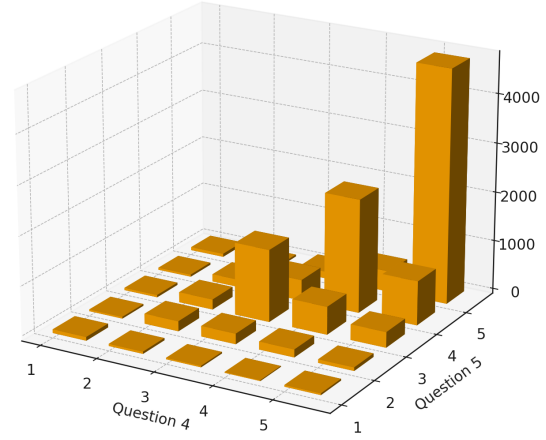
Notes: Panel (a) shows total and age-specific fertility rates based on the *Population Trend Survey – Birth Section*. Panel (b) presents labor force participation rates by gender and age group based on the *Labor Force Survey*, Statistics Korea (2000–2023).

Figure 2: Supervisor Characteristics: Correlations and Joint Distributions

(a) Correlations among supervisor characteristics

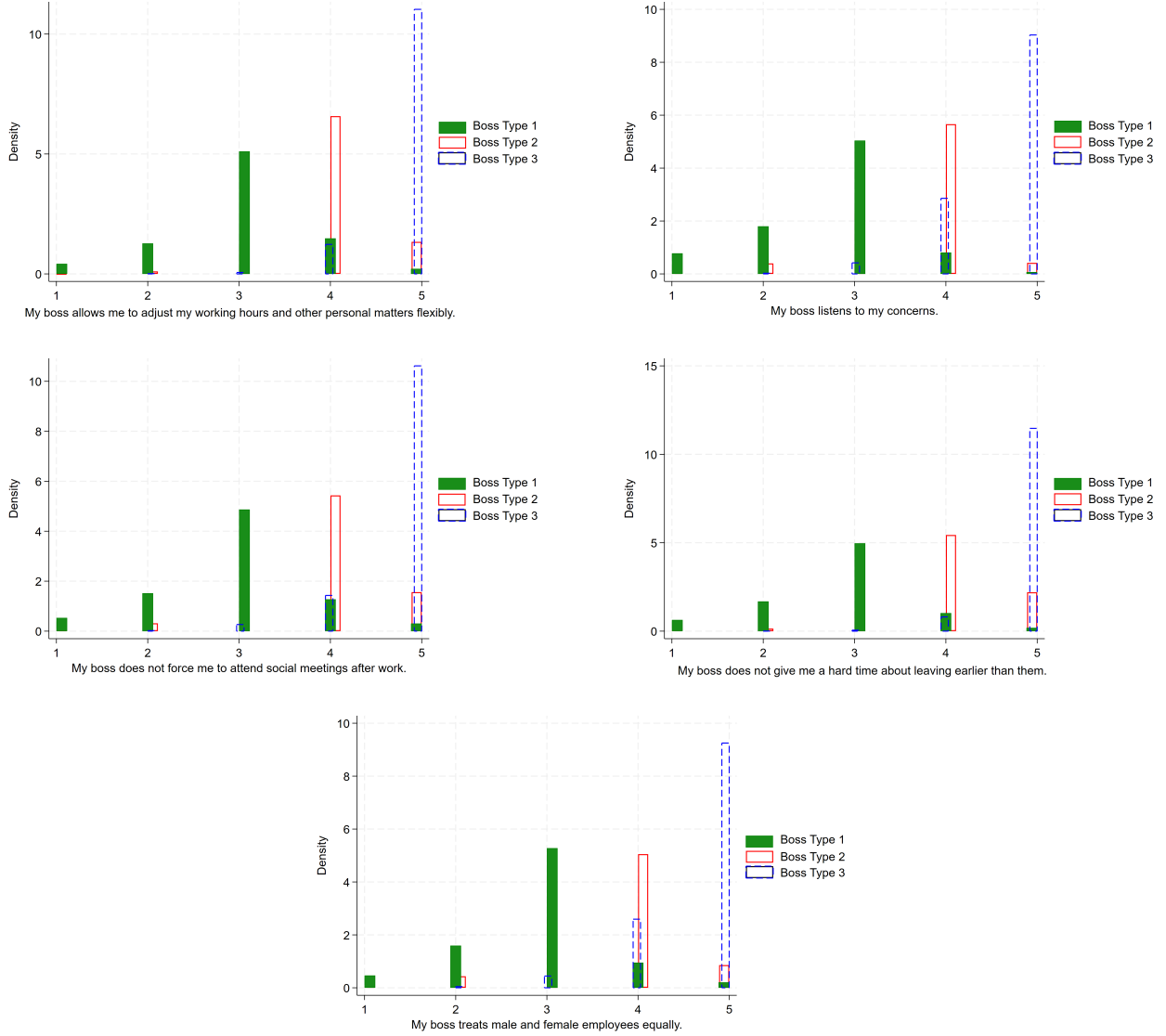
	Q1	Q2	Q3	Q4	Q5
Q1	1				
Q2	0.63	1			
Q3	0.66	0.67	1		
Q4	0.51	0.58	0.53	1	
Q5	0.52	0.63	0.55	0.64	1

(b) Joint distribution for Q4 and Q5.



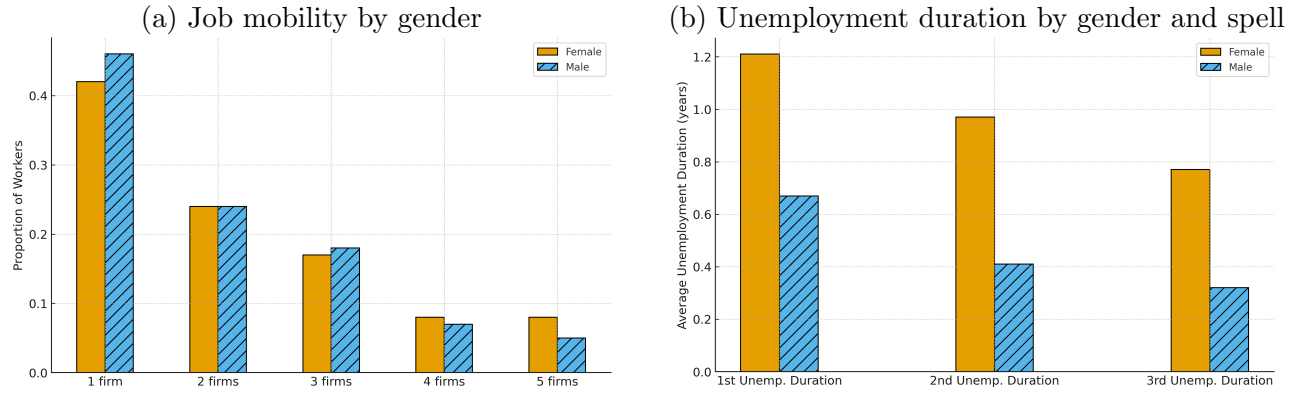
Notes: Panel (a) shows pairwise correlations among responses to questions about supervisors' characteristics. Panel (b) presents the joint distribution for Q4 ("My supervisor does not force me to attend social meetings after work") and Q5 ("My supervisor does not give me a hard time about leaving earlier than them"). Data are drawn from the *Korean Women Manager Panel* (2020–2022), where each item is rated on a five-point scale from 1 ("strongly disagree") to 5 ("strongly agree").

Figure 3: Cluster Analysis of Supervisory Style



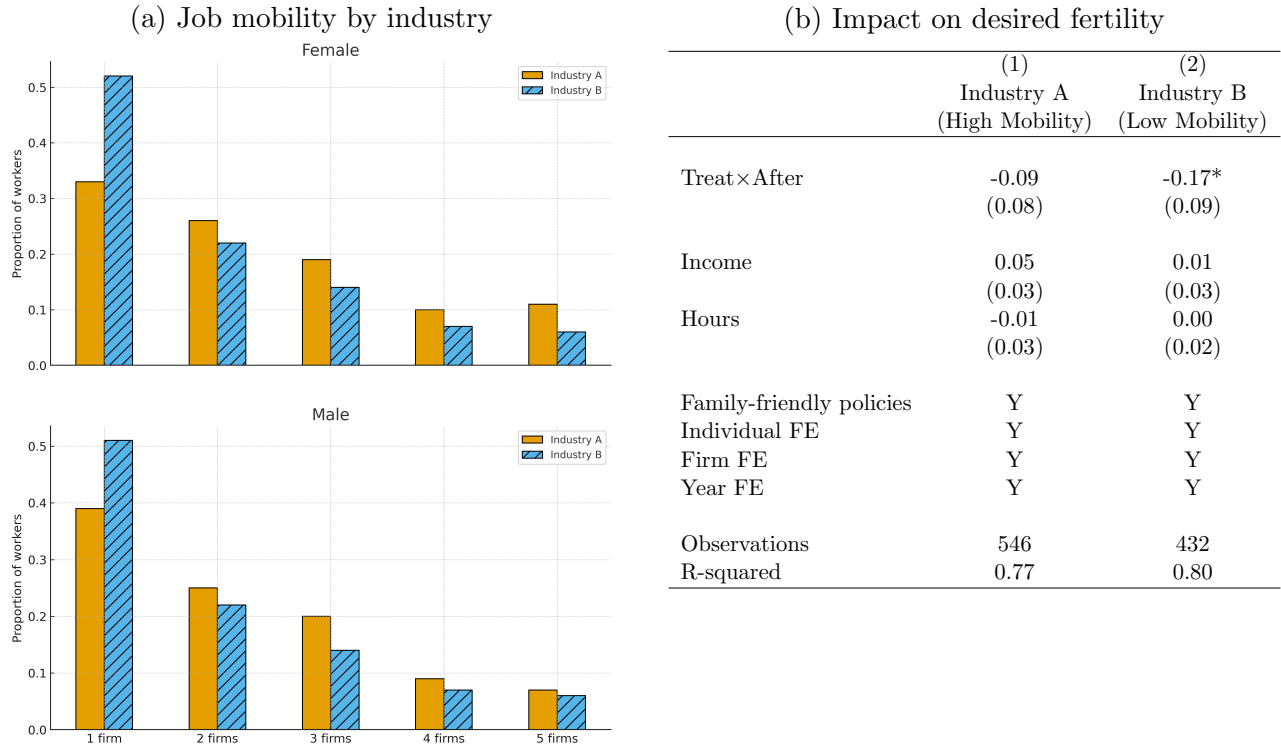
Notes: This figure presents the results of a K -means cluster analysis classifying immediate supervisors into three distinct styles based on five behavioral dimensions. The histograms display the distribution of responses on a 5-point scale (1 = Strongly Disagree, 5 = Strongly Agree). These five dimensions correspond to the following survey statements: (1) “My boss (supervisor) allows me to adjust my working hours and other personal matters flexibly” (Top-Left); (2) “My boss listens to my concerns” (Top-Right); (3) “My boss does not force me to attend social meetings after work” (Middle-Left); (4) “My boss does not give me a hard time about leaving earlier than them” (Middle-Right); and (5) “My boss treats male and female employees equally” (Bottom). Data source: Korean Women Manager Panel 2020–2022.

Figure 4: Labor Market Transitions by Gender



Notes: This figure illustrates labor market rigidity in South Korea using retrospective career history data. Panel (a) displays the distribution of the cumulative number of firms at which individuals have been employed by age 40. The substantial proportion of workers (over 40%) who have remained with a single employer indicates low overall mobility. Panel (b) reports the average duration (in years) of unemployment spells between job transitions. Female workers (orange solid bars) experience significantly longer delays in securing subsequent employment compared to male workers (blue hatched bars).

Figure 5: The Role of Labor Market Rigidity: Industry Heterogeneity



Note: Panel (a) displays the distribution of the total number of jobs held over a career, stratified by gender and industry. Industry A (orange bars) denotes high-mobility sectors, such as business and social services, while Industry B (blue bars) comprises the remaining low-mobility sectors. Panel (b) reports regression estimates corresponding to the specification in column (6) of Table 3, stratified by industry type. Standard errors are clustered at the individual level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 1: Industry and Firm Size Distribution: Sample (N=604) vs. National (100+ Employees, 2023)

(a) Industry classification				
Industry Classification	Sample	Percent (%)	National	Share (%)
Agriculture, Forestry and Fishing	8	1.32	22	0.12
Mining	1	0.17	5	0.03
Manufacturing	93	15.40	4,007	22.75
Electricity, Gas, Steam and Water Supply	20	3.31	122	0.69
Waste Treatment and Recycling	10	1.66	66	0.37
Construction	59	9.77	1,563	8.87
Wholesale and Retail Trade	42	6.95	1,119	6.35
Transportation and Storage	40	6.62	1,317	7.48
Accommodation and Food Services	13	2.15	171	0.97
Information and Communication Services	37	6.13	1,065	6.05
Financial and Insurance Activities	29	4.80	578	3.28
Real Estate and Leasing Activities	12	1.99	196	1.11
Professional, Scientific and Technical Services	56	9.27	1,465	8.32
Business Facility Management and Support Services	58	9.60	2,112	11.99
Education Services	5	0.83	641	3.64
Health and Social Work Services	87	14.40	2,594	14.73
Arts, Sports and Leisure-related Services	28	4.64	381	2.16
Associations and Other Personal Services	6	0.99	189	1.07
Total	604	100	17,613	100

(b) Firm size				
Firm Size Category	Sample	Percent (%)	National	Share (%)
100–199 employees	278	46.03	10,034	56.95
200–299 employees	114	18.87	3,348	19.00
300–499 employees	78	12.91	2,093	11.88
500 or more employees	134	22.19	2,138	12.15
Total	604	100	17,613	100

Notes: The sample statistics are based on firm-level data from the Korean Women Manager Panel (KWMP), which includes 604 firms employing 100 or more workers. The national comparison is drawn from the Survey on Labor Conditions by Establishment conducted by the Ministry of Employment and Labor (MOEL), covering all firms with 100 or more employees as of 2023. Panel (A) reports the distribution across major industry classifications, while Panel (B) presents the distribution by firm size category.

Table 2: Characteristics of Female Managers

	Control group ($n = 459$)	Treated group ($n = 129$)	p-value
Desired fertility	0.32	0.35	0.57
Annual income	4716	4823	0.44
Total weekly working hours	43.47	43.46	0.97
Married	0.55	0.60	0.30
Age	34.72	35.01	0.38
# children	0.57	0.57	0.99
Career aspiration	2.60	2.64	0.66
Daily commuting hours	1.69	1.81	0.16
Spouse education (college)	0.82	0.81	0.72
Spouse income	3.00	3.14	0.28
Spouse support	4.53	4.38	0.18
Housework hours	5.72	6.53	0.12

Notes: The sample is restricted to female managers under age 40 as of 2020 who were previously matched with a non-authoritarian supervisor and reported no strong satisfaction with their current supervisor in 2022 (scores 1–4 on a five-point scale). The table reports baseline characteristics measured in 2020. The **Treated group** comprises individuals matched with an authoritarian supervisor in 2022, while the **Control group** comprises those who remained with a non-authoritarian supervisor. *Variable Definitions:* “Desired fertility” is an indicator for plans to have a child within 3 years. “Annual income” is reported in units of 10,000 KRW (approx. 10 USD). “Career aspiration” indicates the highest target position within the organization: (1) CEO, (2) Senior Manager, (3) Satisfied with current position, or (4) No interest in status. “Spouse income” is a categorical variable for the partner’s annual earnings. “Spouse support” is a categorical variable indicating the level of career support provided by the partner (1=Not at all to 5=Very much). “Housework hours” denotes total weekly household work hours, calculated as the sum of average weekday and average weekend hours spent on household tasks.

Table 3: Supervisory Style and Desired Fertility

	Desired Fertility				
	(1)	(2)	(3)	(4)	(5)
Authoritarian	-0.35* (0.18)	-0.13*** (0.05)	-0.13*** (0.05)		
Treat×After				-0.11** (0.05)	-0.13** (0.06)
Income	-0.04 (0.08)	0.01 (0.02)	0.02 (0.02)	0.01 (0.02)	0.03 (0.02)
Hours	-0.25 (0.18)	-0.00 (0.02)	0.00 (0.02)	-0.00 (0.01)	-0.00 (0.02)
Married	0.08 (0.16)			-0.01 (0.07)	0.04 (0.08)
# children	-0.27* (0.13)				
Age	-0.08*** (0.02)	-0.06*** (0.01)	-0.06*** (0.01)		
Recent hire	Y				
Firm×hiring cohort FE	Y				
Individual FE		Y	Y	Y	Y
Firm FE		Y	Y		Y
Family-friendly policies			Y	Y	Y
Year FE				Y	Y
Observations	49	880	792	1,012	988
R-squared	0.75	0.82	0.82	0.77	0.78

Notes: The sample consists of female managers under the age of 40. Column (1) restricts the sample to recent hires (tenure ≤ 1 year) to exploit cross-sectional variation among workers entering the same firm in the same year, following Lazear et al. (2015). Columns (2) and (3) are restricted to married women and include individual fixed effects to control for time-invariant heterogeneity. Columns (4) and (5) present Difference-in-Differences estimates. “Income” denotes annual income in units of 10 million KRW, and “Hours” denotes weekly working hours in units of 10. Standard errors are clustered at the individual level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 4: Robustness Check: Supervisor Characteristics

	Desired Fertility	
	(1)	(2)
Authoritarian	-0.14*** (0.05)	-0.13** (0.05)
Income	0.01 (0.02)	0.02 (0.02)
Hours	0.01 (0.02)	0.00 (0.02)
Age	-0.06*** (0.01)	-0.06*** (0.01)
Male Supervisor	0.10 (0.06)	
Supervisor Satisfaction		0.00 (0.02)
Individual FE	Y	Y
Firm FE	Y	Y
Family-friendly policies	Y	Y
Observations	792	792
R-squared	0.82	0.82

Notes: This table replicates Column (3) of Table 3 by including controls for supervisor characteristics. “Male Supervisor” is a dummy variable equal to 1 if the direct supervisor is male. “Supervisor Satisfaction” captures the respondent’s satisfaction with their supervisor on a five-point scale. Standard errors are clustered at the individual level. * p<0.1, ** p<0.05, *** p<0.01.

Table 5: Heterogeneity Analysis and Placebo Test

	Desired Fertility	
	(1)	(2)
Treat $\times$ After	0.04 (0.08)	0.02 (0.12)
Treat $\times$ After $\times$ Initially Married	0.02 (0.08)	
Treat $\times$ After $\times$ Initially Married $\times$ NoOrOneChild	-0.38*** (0.09)	
Income	0.02 (0.02)	0.02 (0.04)
Hours	-0.01 (0.02)	0.04 (0.04)
Married	-0.01 (0.08)	
Individual FE	Y	Y
Firm FE	Y	Y
Family-friendly policies	Y	Y
Year FE	Y	Y
Male sample		Y
Observations	988	326
R-squared	0.79	0.80

Notes: Column (1) reports heterogeneity analysis using the primary sample of female managers under 40. The interaction terms examine the differential impact on married workers who had zero or one child at the baseline. Column (2) performs a placebo test using a sample of male managers under 40. Standard errors are clustered at the individual level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 6: Supervisory Style and Income/Working Hours

	A. Female			B. Male		
	(1) Income	(2) Hours	(3) Hours	(1) Income	(2) Hours	(3) Hours
Treat $\times$ After	-0.08 (0.10)	-0.34* (0.17)	0.01 (0.07)	-0.41 (0.26)	-0.02 (0.37)	0.28** (0.12)
Individual FE	Y	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
Weekly Hours ≥ 30			Y			Y
Observations	1,096	1,096	940	352	352	312
R-squared	0.91	0.57	0.68	0.87	0.53	0.74

Notes: This table examines the effect of authoritarian supervision on economic outcomes to test the income opportunity cost hypothesis. Panel A reports results for the primary sample of female managers under 40, while Panel B reports results for male managers under 40. Columns (1) uses annual earnings (in units of 10 million KRW) as the dependent variable. Columns (2) uses weekly working hours (in units of 10 hours). All columns include individual, firm, and year fixed effects. Standard errors are clustered at the individual level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 7: Supervisory Style and Employee Engagement

	A. Female			B. Male		
	(1) Belonging	(2) Pride	(3) Ownership	(1) Belonging	(2) Pride	(3) Ownership
Treat $\times$ After	-0.25** (0.11)	-0.14 (0.13)	-0.20 (0.13)	0.02 (0.20)	0.13 (0.20)	-0.18 (0.22)
Individual FE	Y	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
Observations	1,096	1,096	1,096	352	352	352
R-squared	0.78	0.76	0.76	0.77	0.80	0.72

Notes: This table examines the effect of authoritarian supervision on organizational commitment. The dependent variables are responses to the following statements, measured on a 5-point scale (1 = Strongly Disagree, 5 = Strongly Agree): (1) “I feel a sense of belonging and attachment to our company”; (2) “I am proud of our company”; and (3) “I consider the problems of our company as my own.” Panel A reports results for female managers under 40, and Panel B for male managers under 40. Standard errors are clustered at the individual level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Supervisory Style and Career Prospects

	(1) Desired Position	(2) Perceived Likelihood
Treat $\times$ After	-0.00 (0.13)	-0.32** (0.16)
Individual FE	Y	Y
Firm FE	Y	Y
Year FE	Y	Y
Desired Position FE		Y
Observations	1,248	598
R-squared	0.76	0.76

Notes: This table examines the effect of authoritarian supervision on career prospects using the primary sample of female workers under age 40. Column (1) uses the highest hierarchical position respondents aim to achieve as the dependent variable. Column (2) uses the perceived likelihood of attaining that position as the dependent variable, controlling for workers' reported career aspirations. Standard errors are clustered at the individual level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 9: Pressure Imposed by Authoritarian supervisors

	(1) Ease of P.Leave	(2) Ease of Flex. Sched.	(3) Disadv. P.Leave	(4) Disadv. Flex. Sched.
Authoritarian	-0.44*** (0.10)	-0.45*** (0.15)	0.45*** (0.16)	0.47** (0.19)
Individual FE	Y	Y		
Firm FE			Y	Y
Year FE	Y	Y	Y	Y
Observations	1,455	737	339	194
R-squared	0.78	0.79	0.47	0.54

Notes: The sample is restricted to married female workers. Columns (1) and (2) examine the perceived ease of policy utilization using panel data: (1) "Parental leave can be easily used in the organization" and (2) "Flexible work hours can be easily used in the organization." Columns (3) and (4) examine perceived career penalties using cross-sectional data (survey questions available only in 2022): (3) "Parental leave users face disadvantages during evaluations" and (4) "Flexible work hours users face disadvantages during evaluations." All dependent variables are measured on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Standard errors are clustered at the individual level for columns (1) and (2); heteroskedasticity-robust standard errors are reported for columns (3) and (4). * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 10: Self-Report on Work-Family Balance

	A. Female			A. Male		
	(1) Care Burden	(2) Chore Burden	(3) Quit Intent	(1) Care Burden	(2) Chore Burden	(3) Quit Intent
Authoritarian	0.20** (0.10)	0.26*** (0.09)	0.22* (0.11)	-0.12 (0.16)	0.16 (0.22)	-0.05 (0.26)
Spouse income	Y	Y	Y	Y	Y	Y
Individual FE	Y	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
Observations	1,419	1,419	1,419	367	367	367
R-squared	0.76	0.75	0.76	0.74	0.69	0.65

Notes: The sample is restricted to married workers. This table reports the effect of authoritarian supervision on work-family conflict interfering with work. The dependent variables are responses to the following statements, measured on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree): (1) “Balancing work often becomes difficult due to the burdens of childcare or family caregiving” (Care Burden); (2) “Having a lot of household chores often makes it difficult to focus at work” (Chore Dist.); and (3) “I have thought about quitting my job because of family life” (Quit Intent). All specifications control for spouse income, a categorical variable for the partner’s annual earnings. Panel A reports results for female managers, and Panel B for male managers. Standard errors are clustered at the individual level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 11: Weekly Household Working Hours

	Household Hours	
	(1) Female	(2) Male
Authoritarian	-0.27 (0.33)	-0.09 (0.63)
Spouse income	Y	Y
Individual FE	Y	Y
Firm FE	Y	Y
Year FE	Y	Y
Observations	1,419	367
R-squared	0.76	0.73

Notes: The sample is restricted to married workers. This table tests whether households adjust their domestic labor supply in response to supervisory style. The dependent variable denotes total weekly household work hours, calculated as the sum of average weekday and average weekend hours spent on household tasks. Column (1) reports results for female managers, and Column (2) for male managers. All specifications control for spouse income, a categorical variable indicating the partner’s annual earnings. Standard errors are clustered at the individual level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 12: Career Penalties for Job-to-Job Transitions

	Unemployment Duration		Rank at Subsequent Job	
	(1) Female	(2) Male	(3) Female	(4) Male
Rank at Previous Job			0.79*** (0.04)	0.68*** (0.07)
Reason: Child/Care	3.43*** (0.47)	0.38 (0.35)	-0.18** (0.08)	-0.35* (0.18)
Reason: Mismatch	-0.32*** (0.12)	-0.40*** (0.12)	-0.10** (0.05)	0.10 (0.10)
Age	0.05*** (0.01)	0.01 (0.01)	0.01* (0.00)	0.02** (0.01)
Observations	1,170	435	1,151	433
R-squared	0.19	0.02	0.31	0.31

Notes: This table estimates the costs of job transitions using retrospective career history data. Columns (1) and (2) analyze the “Unemployment Duration” (in years) between leaving a previous job and starting a current one. Columns (3) and (4) analyze the “Hierarchical Rank” at the subsequent job (measured on an ordinal scale). The key independent variables are dummy variables indicating the reason for separation: “Reason: Child/Care” takes the value 1 if the worker left due to childbirth or childcare, and “Reason: Mismatch” takes the value 1 if the worker left due to job mismatch. “Rank at Previous Job” controls for the worker’s status prior to separation. Robust standard errors are reported in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 13: Changes in Values and Attitudes across Female Generations

	(1) 1970–1979 Cohort Mean	(2) 1980–1995 Cohort Mean	(3) p-value
Autonomy Index	2.78	2.97	0.00
Success: Network > Hard Work	2.34	2.50	0.04
Being a Housewife is Fulfilling	3.04	2.58	0.00
Child Suffers if Mother Works	2.69	2.56	0.06
Men make Better Executives	2.14	2.05	0.08

Notes: This table compares mean values and attitudes between older (born 1970–1979) and younger (born 1980–1995) female cohorts in South Korea. Data are drawn from the World Values Survey (1990–2018). “Autonomy Index” captures the respondent’s perceived level of control over their life. “Success: Network > Hard Work” measures the belief that luck and connections are more determinants of success than hard work. For all variables, higher values indicate stronger agreement with the stated proposition or the latter option. Column (3) reports the p-value from a t-test for the equality of means.