Work Stress and Subjective Well-Being in the United States, 2002–2022: Changes Over Time in Job Satisfaction and General Happiness

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1. Introduction

Work occupies a substantial part of adult life, making the quality of work an important component of overall well-being. Prior research has consistently linked workplace stressors with poorer employee outcomes, including lower job satisfaction and worse measures of psychological well-being. A systematic review and meta-analysis of 557 studies found a negative association between social stressors at work and health and well-being outcomes, including job satisfaction and burnout (Gerhardt et al., 2021). Job satisfaction itself has also been associated with broader mental and physical well-being. A meta-analysis of 485 studies involving 267,995 participants found particularly strong relationships between job satisfaction and burnout, depression, anxiety, and self-esteem (Faragher, Cass, & Cooper, 2005).

Job-specific satisfaction and general happiness, however, represent different dimensions of well-being. An individual may experience substantial stress at work while remaining broadly satisfied with life, while in other cases negative experiences at work may extend into overall subjective well-being. Research using General Social Survey data has found that multiple dimensions of job quality—including task discretion, compensation, job security, work intensity, and working conditions—are significantly related to subjective well-being in the United States (Horowitz, 2016). This distinction motivates examining both job satisfaction and general happiness rather than treating workplace well-being as a single outcome.

This study examines the association between the frequency of work stress, job satisfaction, and general happiness among U.S. adults using repeated cross-sectional data from the General Social Survey (GSS). The analysis addresses two related questions. First, do respondents who report more frequent work stress also report lower job satisfaction and lower general happiness after accounting for observed demographic and employment characteristics? Second, has the strength of these associations changed over time between 2002 and 2022? By examining job satisfaction and general happiness separately and allowing the work-stress gradient to vary across survey waves, the study distinguishes between work-specific and broader well-being while assessing whether their relationships with occupational stress have remained stable over time.

Using pooled GSS survey waves from 2002 through 2022 in which the work-stress measure is available, I estimate survey-weighted regression models examining the association between work-stress frequency, job satisfaction, and general happiness. In addition to estimating the pooled association, I test whether the relationship between work stress and well-being has changed over time by interacting reported stress with survey year. This temporal dimension is important because the nature of work, labor-market conditions, and workers' experiences changed substantially over the period studied. The analysis therefore asks not only whether work stress is associated with lower well-being, but whether the magnitude of that association has itself changed over time. Because the GSS consists of observational repeated cross-sections, all estimates are interpreted as associations rather than causal effects.

2. Literature Review

A substantial body of research connects stressful working conditions with reduced employee well-being. Workplace stress can arise from interpersonal conflict, workload, insecurity, limited

control, and other features of the work environment. Gerhardt et al. (2021), in a systematic review and meta-analysis of 557 studies, found that social stressors at work were negatively associated with health and well-being. Job satisfaction and burnout were among the outcomes showing particularly strong relationships with workplace stressors. These findings suggest that stressful experiences within the workplace may be closely related to how workers evaluate their jobs.

Job satisfaction is also related to outcomes extending beyond the workplace. Faragher, Cass, and Cooper (2005) synthesized evidence from 485 studies involving 267,995 participants and found that job satisfaction was associated with both mental and physical health. The relationships were particularly strong for measures such as burnout, depression, anxiety, and self-esteem. This literature suggests that dissatisfaction with work may be connected to broader dimensions of individual well-being rather than remaining isolated within the occupational domain.

Research using the General Social Survey provides additional evidence that characteristics of employment are associated with subjective well-being. Horowitz (2016) examined several dimensions of job quality, including compensation, job security, task discretion, work intensity, and working conditions. The study found that these dimensions were significantly related to subjective well-being, although the mechanisms and strength of the relationships differed across aspects of job quality.

Existing research provides substantial evidence that stressful working conditions and other dimensions of job quality are associated with poorer well-being. However, documenting an overall association does not establish whether that relationship has remained stable across time. Changes in labor-market institutions, technology, economic conditions, and the organization of

work may alter how occupational stress relates to workers' evaluations of their jobs and their lives more broadly. The present study therefore extends the baseline association by examining whether the work-stress gradient in job satisfaction and general happiness changed across GSS survey waves from 2002 to 2022. This approach allows the analysis to distinguish a persistent average relationship from one whose magnitude varies across historical periods.

3. Data and Methods

3.1 Data

This study uses data from the General Social Survey, administered by NORC at the University of Chicago. The GSS is a repeated cross-sectional survey of adults in the United States and includes measures of demographic characteristics, employment, attitudes, and subjective well-being.

The primary analysis uses GSS survey waves from 2002, 2004, 2006, 2010, 2012, 2014, 2016, 2018, and 2022, corresponding to the period in which the Quality of Worklife module provides a consistent basis for examining work stress over time. Earlier observations from 1989 and 1998 are retained for sensitivity analyses rather than included in the primary temporal analysis. Restricting the main sample to 2002–2022 improves comparability across survey waves while preserving a sufficiently long period to evaluate changes in the association between work stress and subjective well-being.

GSS survey weights and survey-design information are incorporated into the analysis. The variable wtssps is used as the survey weight, while vstrat and vpsu identify the variance strata and primary sampling units used to account for the survey design.

3.2 Measures

The primary explanatory variable is reported frequency of work stress. Respondents are asked how often they find their work stressful, with response categories of Never, Hardly ever, Sometimes, Often, and Always. “Never” is used as the reference category in the regression models.

The first outcome is job satisfaction. Responses are coded on a four-point scale, with higher scores representing greater job satisfaction:

1 = Very dissatisfied

2 = A little dissatisfied

3 = Moderately satisfied

4 = Very satisfied

The second outcome is general happiness. Responses are coded on a three-point scale, with higher scores representing greater happiness:

1 = Not too happy

2 = Pretty happy

3 = Very happy

The adjusted models include age, educational attainment, sex, marital status, self-employment status, and survey-year fixed effects. These variables are included to account for observable characteristics that may be associated with both work experiences and subjective well-being.

3.3 Empirical Strategy

The analysis estimates survey-weighted regression models for both job satisfaction and general happiness. Work-stress frequency is first entered as a categorical predictor, with respondents who report that work is never stressful serving as the reference group. These pooled models estimate the average association between work stress and each outcome across the primary 2002–2022 sample.

To examine whether the strength of the association changed over time, I then estimate models that interact work-stress frequency with survey year. The interaction terms allow the work-stress gradient to vary across survey waves rather than assuming that the relationship remained constant throughout the study period.

The baseline specification is:

$$Y_i = \beta_0 + \beta_1 \text{Stress}_i + \beta_2 X_i + \gamma \text{Year} + \varepsilon_i$$

where Y_i represents either job satisfaction or general happiness, Stress_i represents reported work-stress frequency, X_i represents the set of demographic and employment controls, and γYear represents survey-year fixed effects.

To test for changes over time, I estimate:

$$Y_i = \beta_0 + \beta_1 \text{Stress}_i + \beta_2 \text{Year}_i + \beta_3 (\text{Stress}_i \times \text{Year}_i) + \beta_4 X_i + \varepsilon_i$$

The coefficient on the interaction term indicates whether the association between work stress and the outcome becomes stronger or weaker over time. I also estimate more flexible year-specific interaction models that allow the stress categories to differ separately across survey waves.

Because the GSS consists of observational repeated cross-sections rather than experimental or longitudinal data, all estimated coefficients are interpreted as associations rather than causal effects.

4. Results

Table 1. Descriptive Characteristics of the Analytic Sample

Characteristic	Estimate
Age, mean (SD)	**45.88 (17.40)**
Education, years, mean (SD)	**13.40 (3.09)**
Job satisfaction, mean (SD)	**3.32 (0.80)**
General happiness, mean (SD)	**2.17 (0.64)**
Female, %	**51.6**
Male, %	**48.4**
Married, %	**53.2**
Never married, %	**26**
Divorced, %	**12.1**
Widowed, %	**6.1**
Separated, %	**2.7**
Work stress: Never, %	**6.7**
Work stress: Hardly ever, %	**16.6**
Work stress: Sometimes, %	**43.8**
Work stress: Often, %	**22.9**
Work stress: Always, %	**10**

Note. Estimates are survey-weighted. Job satisfaction is measured on a 1–4 scale, with higher values indicating greater satisfaction. General happiness is measured on a 1–3 scale, with higher values indicating greater happiness.

Table 1 summarizes the characteristics of the analytic sample. Respondents were on average 45.9 years old and had completed 13.4 years of education. The most common work-stress response was “Sometimes” (43.8%), while 6.7% reported that work was never stressful and 10.0% reported that it was always stressful. Mean job satisfaction was 3.32 on the four-point scale, and mean general happiness was 2.17 on the three-point scale.

Table 2. Adjusted Associations Between Work Stress, Job Satisfaction, and General Happiness

Work stress frequency	Job satisfaction coefficient	95% CI	General happiness coefficient	95% CI
Never	Reference	—	Reference	—
Hardly ever	-0.059	[-0.131, 0.014]	-0.069	[-0.138, 0.001]
Sometimes	-0.141	[-0.207, -0.074]	-0.119	[-0.181, -0.057]
Often	-0.329	[-0.402, -0.256]	-0.186	[-0.253, -0.119]
Always	-0.492	[-0.581, -0.402]	-0.265	[-0.339, -0.192]

Note. Reference category = respondents reporting that work is never stressful. Higher job-satisfaction scores indicate greater job satisfaction on a 1–4 scale; higher happiness scores indicate greater general happiness on a 1–3 scale. Models adjust for age, education, sex, marital status, self-employment status, and survey-year fixed effects. Survey weights and design variables were incorporated. Job satisfaction model: N = 13,103. General happiness model: N=12,802.

Higher reported work stress was consistently associated with lower job satisfaction and lower general happiness. Relative to respondents who reported that their work was never stressful, respondents who reported that work was sometimes stressful had job-satisfaction scores 0.141 points lower and general-happiness scores 0.119 points lower after adjustment for demographic and employment characteristics and survey year.

The magnitude of the association increased as reported stress became more frequent. Respondents reporting that work was often stressful had adjusted job-satisfaction scores 0.329 points lower and general-happiness scores 0.186 points lower than respondents in the reference category. Respondents reporting that work was always stressful had adjusted job-satisfaction scores 0.492 points lower and general-happiness scores 0.265 points lower.

The confidence intervals for the sometimes, often, and always categories excluded zero for both outcomes. In contrast, estimates for respondents reporting that work was hardly ever stressful were comparatively small and less precisely estimated.

Overall, the results show a graded association between work stress and both measures of well-being. More frequent reported work stress corresponded to progressively lower job satisfaction and general happiness, even after adjustment for observed demographic and

employment characteristics. These results are consistent with the possibility that stressful experiences at work are related both to evaluations of employment itself and to broader subjective well-being. However, because the analysis is observational, the estimates do not establish that work stress causes reductions in either outcome.

The pooled models establish a strong graded association between work stress and subjective well-being, but they assume that this relationship is constant across survey years. Allowing the association to vary over time provides evidence that the work-stress gradient in job satisfaction became more negative between 2002 and 2022. In the ordinal stress-by-year specification, the interaction coefficient for job satisfaction was -0.00362 per year ($p = .0096$), indicating that the negative relationship between increasingly frequent work stress and job satisfaction strengthened over the period studied.

The more flexible year-specific estimates also show substantial variation in the magnitude of the association. Among respondents reporting that work was always stressful, the adjusted job-satisfaction difference relative to respondents reporting that work was never stressful was approximately -0.35 points in 2002, -0.60 points in 2010, -0.50 points in 2018, and -0.85 points in 2022. The 2022 estimate therefore represents an especially pronounced work-stress gradient in job satisfaction.

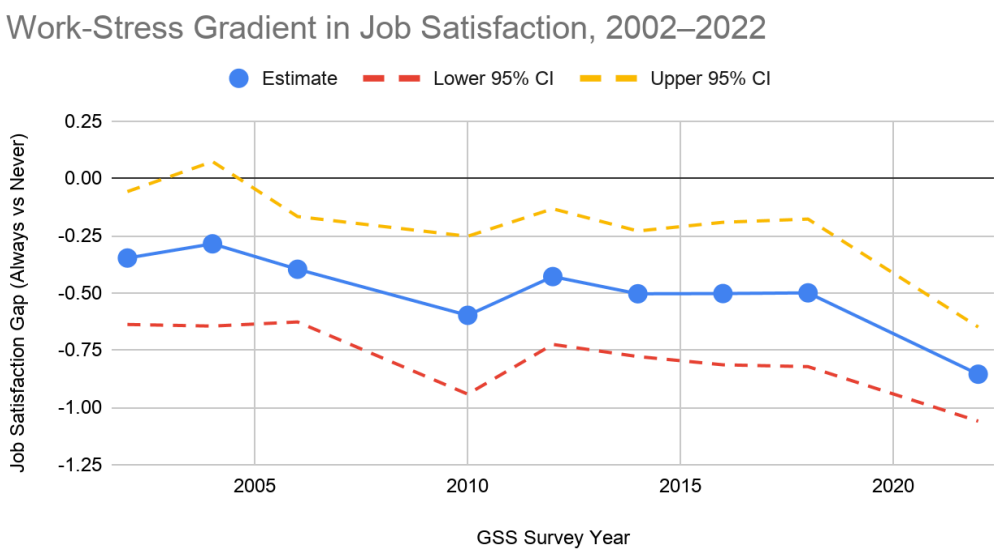

Figure 1. Adjusted Job Satisfaction Gap Between Respondents Reporting Work as Always Stressful and Never Stressful, 2002–2022

Note. The solid line shows the adjusted difference in job satisfaction between respondents reporting that work was always stressful and those reporting that work was never stressful. Dashed lines show the 95% confidence interval. Negative values indicate lower job satisfaction among respondents reporting that work was always stressful.

Evidence of temporal change was weaker for general happiness. The ordinal stress-by-year interaction was negative ($\beta = -0.00255$, $p = .0465$), but the more flexible year-specific estimates did not provide comparably strong evidence of a consistent temporal pattern. The results therefore provide clearer evidence of increasing differentiation in job satisfaction than in broader general happiness.

5. Discussion

The results indicate that work stress is associated with two distinct dimensions of subjective well-being. More frequent work stress is associated with lower job satisfaction and lower general happiness, but the temporal analysis shows that these relationships have not necessarily remained constant over time.

The clearest evidence of change appears for job satisfaction. The negative association between work stress and job satisfaction became stronger over the 2002–2022 period, with the largest adjusted gap observed in 2022. This suggests that the relationship between occupational stress and workers' evaluations of their jobs may depend partly on broader historical and labor-market conditions rather than representing a completely stable relationship across time.

The corresponding evidence for general happiness is weaker. Although the overall stress-by-year interaction is negative, the year-specific pattern is less consistent than for job satisfaction. One possible explanation is that job satisfaction is directly tied to respondents' employment experiences, whereas general happiness reflects many domains outside work. Changes in workplace conditions may therefore be more immediately reflected in job satisfaction than in broader evaluations of life.

Although the pronounced discrepancy in job-specific satisfaction documented in 2022 remains striking, this finding must not be viewed as a definitive causal consequence of the COVID-19 health crisis. While the 2022 data collection followed major upheavals across labor markets and occupational settings, cross-sectional observational models cannot separate these societal shifts from co-occurring historical trends. Consequently, the estimate demonstrates that the work-stress gradient reached an extraordinary magnitude during this period, highlighting the need for additional empirical research regarding the underlying mechanisms.

6. Limitations

Several limitations should be considered when interpreting these findings. First, the GSS data used in this study are observational repeated cross-sections. The analysis therefore cannot establish the direction of causality. More frequent work stress may contribute to lower job satisfaction or happiness, but respondents with lower subjective well-being may also perceive or report workplace stress differently.

Second, the analysis relies on self-reported measures of work stress, job satisfaction, and general happiness. These measures capture respondents' subjective experiences, but they may also be influenced by differences in interpretation, reporting behavior, or response style.

Third, although the models adjust for age, education, sex, marital status, self-employment status, and survey year, unobserved factors may still influence both workplace stress and subjective well-being. Examples include health, personality, workplace culture, occupation-specific characteristics, household circumstances, and other dimensions of job quality not fully captured in the present models.

Fourth, the temporal analysis identifies changes in the strength of the association across survey waves, but it does not identify the causes of those changes. The especially large job-satisfaction gap observed in 2022 may reflect shifts in workplace organization, labor-market conditions, economic uncertainty, or other contemporaneous factors. The present design cannot determine which of these mechanisms is responsible.

Finally, although the primary analysis focuses on 2002–2022 to improve comparability across waves, survey measures and the broader meaning of work stress may still have evolved over time. Results should therefore be interpreted as evidence of changing associations rather than proof that the underlying construct was measured identically in every historical context.

7. Conclusion

This study examines the association between work-stress frequency, job satisfaction, and general happiness in the United States using repeated cross-sectional data from the General Social Survey. The pooled results show a clear graded relationship: respondents who report more frequent work stress also report lower job satisfaction and lower general happiness after adjustment for observed demographic and employment characteristics.

The main contribution of the analysis is that this relationship does not appear to have remained completely stable over time. Between 2002 and 2022, the negative association between work stress and job satisfaction became stronger, with an especially large adjusted gap observed in 2022 between respondents reporting that work was always stressful and those reporting that it was never stressful. Evidence of temporal change in general happiness is weaker and less consistent.

These findings suggest that the relationship between occupational stress and subjective well-being may depend partly on broader historical and labor-market conditions. At the same time, the observational repeated cross-sectional design does not permit causal interpretation or identification of the mechanisms driving temporal change. Future research could examine whether the pattern is concentrated within particular occupations or demographic groups and could use longitudinal or quasi-experimental designs to better identify why the work-stress gradient in job satisfaction appears to have intensified over time.

References

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