

## Executive Summary

### The Role of Individual Health Patterns and Endogenous Employment on Absenteeism

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#### Research Objective

This research explores how diagnosed mental illness shapes illness-related absenteeism among employed U.S. adults, while carefully accounting for unobserved personal attributes and the self-selection process into employment. A key aim is to test whether the broad conclusions of prior studies—many of which do not adjust for selection bias—hold up when such bias is addressed head-on. In this analysis, strong evidence of sample selection emerges across every modeling approach, suggesting that earlier findings may be correct in sign and significance but miscalibrated in magnitude.

#### Hypotheses and Goals

- **Primary Hypothesis:** Diagnosed mental illness corresponds to a measurable rise in illness-related work absences.
- **Additional Objectives:**
  - Investigate how health insurance arrangements and job-specific characteristics might influence absenteeism outcomes.
  - Adjust for endogenous employment status to deliver estimates that more faithfully reflect true relationships.

#### Population

The primary sample consists of 31,929 employed adults drawn from the Medical Expenditure Panel Survey (2010–2014). For consistency, identical data-generation rules are applied to the unemployed sample, excluding those who have ever retired, military personnel, individuals with significant activity-limiting disabilities, and students. To better target those realistically capable of employment, the sample further omits persons who have never worked and those out of the labor force at the time of the MEPS interviews (Jones et al., 2008; Certo et al., 2016). Under these rules, the unemployed subsample contains 23,093 women and 19,823 men. For a broader comparison, working-age individuals meeting these criteria but remaining outside the labor force are also considered, yielding 29,947 observations for women and 24,562 for men.

#### Data Sources

The study draws on MEPS Full-Year Consolidated Datafile, Medical Conditions Datafiles, and Jobs Datafiles, combined with regional unemployment rates from the Bureau of Labor Statistics. Core variables include the number of absenteeism days, presence of diagnosed mental illness (mood, anxiety, and psychotic disorders), physical health status, insurance access, and fringe benefits.

#### Methods

The dependent variable—the count of absenteeism days—is analyzed using:

- Negative binomial regression for baseline estimates.
- Correlated Random Effects (CRE) models to account for stable individual characteristics.
- Heckman two-stage and copula-based semi-parametric models to address endogenous employment selection.
- Computation of Average Marginal Effects (AMEs) to aid interpretability.

#### Findings

Across all approaches, diagnosed mental illness is associated with higher absenteeism—about one additional day per year for men and 0.9 days for women—even after adjusting for health, demographic, and workplace factors. Employer-provided insurance, particularly when offering plan choice, correlates with greater absenteeism, plausibly reflecting enhanced access to medical care. The persistent detection of selection bias throughout the modeling confirms that while the direction and significance of earlier literature may remain intact, the effect size is highly sensitive to correcting for endogeneity. These conclusions hold firm across diverse econometric specifications.