# Executive Summary

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

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## Research Objective(s)

This study investigates how diagnosed mental illness affects illness-related absenteeism among employed U.S. adults, emphasizing the importance of accounting for unobserved heterogeneity and self-selection into employment. The research evaluates whether standard estimates understate productivity losses associated with untreated mental illness.

## Hypotheses / Goals

- **Primary Hypothesis:** Diagnosed mental illness increases illness-related work absences.
- **Additional Goals:**
  - Assess the mediating effects of health insurance and job characteristics on absenteeism.
  - Correct for endogeneity in employment status to obtain unbiased absenteeism estimates.

## Population Studied

The analysis includes 31,929 employed adults in the U.S. from the Medical Expenditure Panel Survey (2010014). Supplementary samples of unemployed and out-of-labor-force individuals are included to examine selection bias.

## Data

The study uses MEPS data (Full-Year Consolidated, Medical Conditions, Jobs Files) and regional unemployment rates from the Bureau of Labor Statistics. Key variables include absenteeism days, diagnosed mental illness (mood, anxiety, psychotic disorders), physical health, insurance access, and fringe benefits.

## Econometrics

The primary outcome (count of absenteeism days) is modeled using:

- Negative binomial regressions for baseline estimates.
- Correlated Random Effects (CRE) models to adjust for time-invariant individual heterogeneity.
- Heckman two-stage and copula-based semi-parametric models to correct for endogenous employment selection.
- Average Marginal Effects (AMEs) are computed for interpretability.

## Conclusion

Diagnosed mental illness significantly increases absenteeism (approximately 1 day/year for men, 0.9 days/year for women), even after controlling for health, demographics, and job features. Employer-provided insurance, particularly with plan choice, is associated with higher absenteeism, likely due to better care access. Results are robust across all modeling strategies.