HUMAN CAPITAL, MATCHING AND JOB SATISFACTION

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Outline

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- Testing human capital theory
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Introduction

- Job satisfaction as a proxy for match quality
  - Ferreira & Taylor (2011)

- Job satisfaction & productivity
  - Freeman (1978)

- Negative correlation between job satisfaction and tenure
  - Freeman (1978), Borjas (1979), Theodossiou and Zangelidis (2009)
Aims

- To offer an explanation why job satisfaction and tenure are negatively correlated
  - Our explanation supports the view that JS can be used as a measure of the quality (productivity) of a job match

- To test whether JS is falling with tenure
Medoff and Abraham (1980) tested human capital theory by introducing performance indicators as a proxy for productivity into a human capital earnings equation. If the human capital view of the world was correct, introduction of the performance indicators should drive the coefficients on tenure to zero. However, the coefficient on tenure increased and was interpreted as a rejection of human capital theory.

Is this a correct interpretation?

Barmby & Eberth (2008) offer an alternative interpretation consistent with a human capital view of the world.
Theory

- Worker productivity with the current employer is:
  \[ \ln \nu_0 = \ln g + \ln k + \ln \varepsilon_0 \]

- Worker productivity were he to move is:
  \[ \ln \nu_i = \ln g + \ln \varepsilon_i, i > 0 \]

- Match quality \( \varepsilon_i \) with alternative employer \( i \) is distributed as
  \( \varepsilon_i \sim f(\varepsilon_i); \varepsilon \in (\underline{\varepsilon}, \bar{\varepsilon}), i > 0 \)

- Worker leaves if
  \[ \ln \varepsilon_i > \ln k + \ln \varepsilon_0 \]

- This process describes a non random selection from the distribution of match quality
Theory

Negative correlation between tenure and match quality
Link to Medoff & Abraham puzzle

- \( \ln w = \beta_0 + \beta_1 k + u \)
- Can estimate true returns to tenure if \( \text{cov}(k,u) = 0 \)
- If, \( \text{cov}(k,u) \neq 0 \): negative bias in \( \beta_1 \)(hat)
- M&A estimate: \( \ln w = \beta_1 + \beta_2 k + \beta_3 \text{Perf} + v \)
- If performance dummies are proxies for match quality, then \( u = \beta_3 \text{Perf} + v \)
If job satisfaction measures job match quality, this theory tells us that tenure should impact negatively on JS in an empirical job satisfaction equation.
Data

- Workplace Employment Relations Survey 2004
- Linked employer-employee data
- Non-pecuniary job satisfaction
  - 7-measure composite index
  - \((-14, 14)\) after recoding Likert scales
- OLS, workplace FE models
- Tenure “How many years at this workplace?”
- Demographic and job controls
## Results

### Table 1 Abbreviated estimation results

| Tenure Category                        | Coefficient | Standard error | P>|t| |
|----------------------------------------|-------------|----------------|-----|
| 1 to less than 2 years of tenure       | -0.7168     | 0.1470         | 0.000 |
| 2 to less than five years of tenure    | -0.9388     | 0.1315         | 0.000 |
| 5 to less than 10 years of tenure      | -1.0163     | 0.1438         | 0.000 |
| 10 or more years of tenure             | -1.0023     | 0.1532         | 0.000 |

N: 11438

F(117, 10104): 29.41

Prob > F: 0.0000

R²: 0.4408

Adjusted R²: 0.3669
Conclusion

- We offered an explanation of why tenure will have a negative effect in empirical job satisfaction equations.
- Empirical result supports the use of JS measures as a measure of match quality.
- Tenure and match quality negatively correlated.