

On the Sensitivity of Returns to Seniority to the Measurement of Earnings

Arnaud Lefranc_
November 23, 2001

Abstract

This paper examines the incidence of measurement error in wage data on the estimation of returns to seniority. Earnings surveys collect wage data through questions pertaining to earnings and hours over a given period of time (year, week) or through direct reports of hourly wages. Comparing results for different wage variables from the Panel Study of Income Dynamics (PSID), I show that estimated returns to seniority are very sensitive to the type of wage data used. Estimates based on yearly reports are typically twice as large as those using direct reports. Two sources account for this discrepancy. Firstly, the inclusion of earnings from secondary jobs and overtime in the PSID annual earnings data tends to overestimate returns to seniority. Secondly, hourly wages computed from yearly measures include important measurement errors that tend to bias coefficients upward.

–

THEMA, Université de Cergy-Pontoise, 33 Boulevard du Port, 95011 Cergy, France;
lefranc@eco.u-cergy.fr. This paper was partly written while I was a Fulbright visiting scholar at the Industrial Relations Section, Princeton University. I am grateful to Joe Altonji, Hank Farber, Francis Kramarz and Alan Krueger for useful discussions.

<http://www.aea.fed-eco.org/fr/archives/2002Bruxelles/programme.asp>