Warunsiri, S.¹,²; McNown, R.¹
The returns to education in Thailand: A pseudo-panel approach
DOI: 10.1016/j.worlddev.2010.03.002

¹ University of Colorado, Boulder, United States
² University of the Thai Chamber of Commerce, Thailand

Abstract
This study employs the pseudo-panel approach for estimating returns to education in Thailand, while treating the endogeneity bias common to estimates from data on individuals. Pseudo-panel data are constructed from repeated cross-sections of Thailand's National Labor Force Surveys of workers born during 1946-67. Estimates show a downward bias of the returns to education in least squares regressions with individual data, a result confirmed with instrumental variable estimation. The overall rate of return is between 14% and 16%. Females have higher returns than males, and workers in urban areas have higher returns than those in rural areas. © 2010 Elsevier Ltd.

Author Keywords
Asia; IV estimators; Pseudo-panel; Returns to education; Synthetic cohort; Thailand

References
- Amornthum, S., Chalamwong, Y.
  Rate of return to education
  (2001) Human resources and the labor market of Thailand, Thailand Development Research Institute (TDRI), Bangkok, Thailand
- Angrist, J.D., Krueger, A.B.
  Does compulsory school attendance affect schooling and earnings?
- Antman, F., Mckenzie, D.J.
  Poverty traps and nonlinear income dynamics with measurement error and individual heterogeneity
- Appiah, E.N., McMahon, W.W.
  The social outcomes of education and feedbacks on growth in Africa
- Ashenfelter, O., Harmon, C., Hessel, O.
  A review of estimates of the schooling/earnings relationship, with tests for publication bias
- Borjas, G.
  The relationship between wages and weekly hours of work: The role of division bias
- Bound, J., Jaeger, D., Baker, R.
  Problems with instrumental variables estimation when the correlation between the instruments and the endogenous explanatory variable is weak
Blundell, R., Dearden, L., Sianesi, B.  
(2001) *Estimating the returns to education: Models, methods and results*,  
Centre for the Economics of Education, London School of Economics, London

Card, D.  
**Using geographic variation in college proximity to estimate the return to schooling**  
University of Toronto Press, Toronto, L. Christofides, K. Grant, R. Swindinsky (Eds.)

Card, D.  
**The causal effect of education on earnings**  
(1999) *Handbook of labor economics*, 3A,  
North Holland, Amsterdam and New York, O. Ashenfelter, D. Card (Eds.)

Card, D., Lemieux, T.  
**Can falling supply explain the rising return to college for younger men? A cohort-based analysis**  

Chiswick, C.  
**On estimating earning functions for LDCs**  

Conneely, K., Uusitalo, R.  
Mimeo, Industrial Relation Section, Princeton University

Dargay, J.  
**The effect of prices and income on car travel in the UK**  

Deaton, A.  
**Panel data from a time series of cross-sections**  

Deaton, A.  
(1998) *The analysis of household surveys: A microeconometric approach to development policy*,  
The Johns Hopkin Univesity Press, Baltimore, MD

Devereux, P.  
**Small-sample bias in synthetic cohort models of labor supply**  

Dougherty, C.  
**Why are the returns to schooling higher for women than for men?**  

Fuente, A., Ciccone, A.  
(2003), Human capital in a global and knowledge-based economy. UFAE and IAE Working Papers 562.03. Unitat de Fonaments de l'Anàlisi Econòmica (UAB) and Institut d'Anàlisi Econòmica (CSIC).

Gandhi-Kingdon, G.  
**The gender gap in educational attainment in India: How much can be explained?**  

Glenn, N.  
(2005) *Cohort analysis*,  
Sage Publications, Thousand Oaks, CA
Grilliches, Z.  
**Estimating the returns to schooling: Some econometric problems**  

Harmon, C., Oosterbeek, H., Walker, I.  

Hawley, J.  
**Changing returns to education in times of prosperity and crisis, Thailand 1985-1998**  

Heckman, J., Lochner, L., Petra, T.  

Kane, T., Rouse, C.  

Lucas, R.E.  
**On the mechanics of economic development**  

McMahon, W.W.  
**The relation of education and R&D to productivity growth in the developing countries of Africa**  

McMahon, W.W.  
**Education and growth in East Asia**  

McMahon, W.W.  

McMahon, W.W.  
**The impact of human capital on non-market outcomes and feedbacks on economic development**  

Mincer, J.  

(2000), OECD. Estimating economic and social returns to learning: Session 3 issues for discussion. OECD.


Oreopoulos, P.  
**Do dropouts drop out too soon? Wealth, health and happiness from compulsory schooling**  

Patrinos, H.A.  
(1995) *Education and earnings differentials*, 
...
Mimeo, World Bank, Washington, DC

- Psacharopoulos, G.  
  **Returns to investment in education: A global update**  

- Psacharopoulos, G., Patrinos, H.A.  
  **Returns to investment in education: A further update**  

- Schultz, P.  
  **Why governments should invest more to educated girls**  

- Sussangkarn, C., Chalamwong, Y.  
  **Thailand development strategies and their impacts on labour markets and migration**  

- Uusitalo, R.  

- Verbeek, M., Nijman, T.  
  **Can cohort data be treated as genuine panel data?**  

- Verbeek, M., Nijman, T.  
  **Minimum MSE estimation of a regression model with fixed effects from a series of cross-sections**  

- Welsh, F.  
  **Wage and participation**  

- World Bank  
  The World Bank, Washington, DC

- World Bank  
  The World Bank, Washington, DC

- World Bank  
  The World Bank, Washington, DC

- World Bank  
  (2010) *Thailand-towards a competitive higher education system in a global economy*,  
  The World Bank Group, Bangkok, Thailand

**Document Type:** Article  
**Source:** Scopus