

Long-Term Estimates for Education Stock in Asia

<Overview>

November 2012

Objective

Investment in education is often espoused as a sure and steady means of fostering long-term economic development. However, a comprehensive analysis on the economic role of education has been stymied because of the sheer paucity of long-term statistics on the accumulation of human capital created from investments in education. In order to close this gap, we construct a new set of estimates on education stocks in Japan, Korea, Taiwan, and the United States.

Contact

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Estimation period

Japan: 1870–1940 and 1947–2000

Korea: 1920–42 and 1955–2000

Taiwan: 1888–1940 and 1947–2000

United States: 1890–2000

Major data sources

Japan: Population Census, Fundamental School Survey, Historical Statistics of Japan

Korea: Population Census, Statistical Yearbook of Education, School Statistics of Chosen, Chosen Statistical Yearbook

Taiwan: Education Statistics of the Republic of China, Taiwan-Fukin Demographic Fact Book, Statistical Book of the Government-General of Formosa

United States: Population Census, Statistical Abstract of the United States

Future research plan

Econometric analyses on the relationship between education stock and economic growth.

Extension of our database to other East Asian countries such as the Philippines and Thailand

Major findings from the present results

1. Our dataset has three major advantages over existing ones such as Barro and Lee (2010), Kim and Lau (1995), and Nehru, Swanson and Dubey (1995). First, our dataset encompasses almost 100

years, while all the existing datasets encompass only several decades. Second, our dataset provides more detailed information such as average years of schooling by gender, age, and levels of education. Third, greater accuracy is guaranteed by an exhaustive study on and careful treatment of original data sources.

2. Based on our dataset, we compare long-term changes among the economic indicators and education stocks of the three East Asian countries and the United States. The result indicates that East Asian economic success can be characterized as a “military-style heavy industrialization.” Roughly speaking, the East Asian societies were rich in middle-level educated, homogenous laborers during the miraculous economic growth periods. These workers worked together methodologically in factories (instead of military camps). Japan, Korea, and Taiwan succeeded in establishing uniform societies that were suited for “military-style heavy industrialization” through long-term educational investments.

References

Barro, R. and J. Lee. (2010) “A New Data Set of Educational Attainment in the World, 1950-2000,” *NBER Working Paper* 15902.

Kim, J. and L. J. Lau. (1995) “The Role of Human Capital in the Economic Growth of the East Asian Newly Industrialized Countries,” *Asia-Pacific Economic Review*, 1:3, 3-22.

Nehru, V., E. Swanson, and A. Dubey. (1995) “A New Database on Human Capital Stock in Developing and Industrial Countries: Sources, Methodology and Results,” *Journal of Development Economics*, 46, 379-401.