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ACCOUNTING FOR LABOR INPUT IN CHINESE INDUSTRY, 1949-2005^{*#}

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Following the user cost theory on labour input, this study carefully scans through both published and unpublished data and then constructs employment and compensation matrices for the Chinese industrial workforce in 1949-2005. Our measures capture individual and interactive effects of changes in gender, age, education, occupation, industry and ownership types of the Chinese industrial workforce, and decompose the growth of labour input in Chinese industry into quantity and quality changes. We show that China's industrial work force experienced a quality decline in the central planning period, measured as negative 7 percent of labour input growth per annum, but for the reform period, quality improvements accounted for about 20 percent of labour input growth per annum. Sector or industry shift played an important role in quality change, which may reflect the restructuring effect of policy changes over time. However, we have found that education was not a significant source of labor quality improvement. We argue that the education effect might be largely captured by the unusually important contribution by age to labour input growth, as seniority had a dominant weight in determining labour compensation in China.

Keywords: Labour quantity and quality; labour compensation; translog labour input indexing; iterative proportional fitting (IPF); economic transition

JEL Classification: E24, C82, O47

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The coverage of the present version is narrower than the original proposal due to data problems. It concentrates on the industrial sector for 1949-2005 rather than the total economy up to 2008.