

## Abstracts

### Unemployment and Human Capital Formation in School Education: An Econometric Analysis of Prefectural Panel Data

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This study is an empirical attempt to examine the extent to which the persistent rise in unemployment rate in Japan during 1990s to the early 2000s affected human capital formation in high school, using prefectural panel data. When a parent is unemployed, household income is reduced and it narrows the child's opportunity to enhance his/her human capital. Moreover, as the parental unemployment is prolonged, the child's school performance might be further lowered by way of deterioration of parenting caused by psychological stress and serious damage in family life such as divorce and suicide. We investigate empirically the direct and indirect effects of unemployment mentioned above on human capital formation in high school. We measure human capital formation in high school by three proxies: the school absenteeism rate, dropout rate and university-going rate, and then estimate the effects of unemployment on these measures. We find that a rise in unemployment rate increases school absenteeism rate directly and increases the school absenteeism rate and dropout rate indirectly by way of a rise in the divorce rate. Moreover, a rise in unemployment rate leads to a fall of the university-going rate directly and indirectly by way of a rise in the divorce rate and suicide rate.

### Effects of Union Establishment and Dissolution on Wages and Productivity

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For the purpose of identifying the effects of unions, panel data including information on firms changing union status is required. For analyzing the impacts of labor union on wages and productivity, in this article data on manufacturing firms changing their union status (a maximum of 34 firms) and those not changing this status (a maximum of 64 firms) in *Kaisyu Sokan - Mijojo Kaisyu Ban (NIKKEI Annual Corporation Reports - Unlisted)* during 1982 - 1996 is employed. The objectives are to analyze the difference between the union establishment effect and the union dissolution effect and those lagged impacts. In firms with established unions, the union wage effects on both males and females are not detected. In firms with dissolved unions, the long term wage differentials were compared with the pre-dissolution sample, with the comparative firms at about 7 % for males and 6% for females. Such differentials are presumed to be attributed to the pay raise differentials compared with the other firms. Moreover, effects mitigating such differentials when dissolution occurs are detected. In the analysis on productivity, a union effect over 10% exists in union establishment firms solely. Due to the placebo test which examines the impacts of dummy variables on the pre-establishment year or the pre-dissolution year, the effects preempting establishment or dissolution do not exist except for female wages.