Abstracts

Education, Labor and Society: From the Viewpoint of Effect of Education on Human Behavior

Masakazu Yano (Showa Women's University)

In this paper, the relationships between education, labor and society are examined in terms of educational effect which is analyzed demonstratively. Firstly, the educational effect is divided into four fields, public, private, monetary and non-monetary, and then it is emphasized that education must be comprehended as multiple effects of each. Secondly, the private economic effects of education will be presented based on a survey of graduates from five universities. Some results may show that learning at university seems not to have a meaningful effect on students' incomes after graduation; however, we point out the mistakes of these analyses and interpretation. It is clear that learning at university improves students' knowledge at the time of graduation and by continuing the learning experience after graduation, the current knowledge is improved and the results are linked with higher incomes. We named this the "practice of learning" hypothesis. Finally, the proposed learning practice leads to not only economic benefits but also participation in social activities. The importance of citizenship education connected with labor and society is also discussed.

The Causal Effect of Education on Wages: A Survey of Methods and a New Estimate for Japan

Kengo Yasui (Ritsumeikan University) and **Shinpei Sano** (Kobe University)

This paper overviews the methodological issues that arise when estimating the causal effect of education on wages, introduces some related empirical studies conducted in the U.S., Europe and Japan, and presents estimation results of the effects of education on wages using micro-data of Japan. In order to identify the causal effects by estimating the coefficient of years of schooling in the Mincer model, we have to remove the biases caused by omitted variables, selection, or measurement error. This paper presents the following methods which attempt to remove such biases: instrumental variable estimations based on the institutional features of the school system or family background, ordinary least squares (OLS) estimations using family background or observed ability as a control, and a siblings/twins fixed effects model. We also introduce existing studies using these methods and present our estimation results. Consistent with existing studies in the U.S. and Europe, our results show that family background and observed ability are important as omitted variables. Therefore, we suggest that family background is an inadequate instrumental variable. Lastly, we introduce the critique by Heckman, Lochner and Todd (2006), which indicates that it is difficult to interpret the coefficient of years of schooling in the Mincer model as the rates of return to education.

Occupational Attainment of Graduates of *Senmon Gakko*: Analysis of the Expected Effect of Vocational Education

Junko Hamanaka (The National Center for University Entrance Examinations)

This paper examines the educational effects of *Senmon Gakko* (Japanese vocational schools), through an analysis of the income and work attitude of the graduates. The results show that in the group who are working in jobs that require qualifications, there is a significant influence, but in the group who are engaged in work that does not require any entry qualification, there is no significant educational effect. These findings suggest it is important to overcome these limited effects if the development of vocational education becomes a policy issue.

Current Situation and Issues of Learning Activities through the Work Experience Program in Toyama Prefecture "Challenge by 14 year olds"

Satomi Terasaki (Fukuoka University)

This paper examines the effects and issues of learning activities through the work experience program, "Challenge by 14 year olds" in Toyama prefecture. There is no forum for discussing the purpose and effect of junior high school students' work experience specifically because there is still time for junior high school students to

choose an actual occupation. This article focuses on the following two perceptions of work experience: One is that work experience is considered to be an exploratory activity for choosing an occupation, and the other is that it is an ideal new type of school education which raises children through community involvement. The "Challenge by 14 year olds" program in Toyama prefecture is at a turning point from the latter to the former. The analysis was done by using data from "the survey of junior high school students' future perspectives and work attitude," conducted by Ochanomizu University in 2006. When work experience is regarded as an exploratory activity for choosing an occupation, various experiences are offered to the junior high school students, and these experiences motivate them for further learning. Expecting an effect of the exploratory activities for choosing an occupation, because this activity targets immature junior high school students as workers, it might be difficult to receive the cooperation of the office in the region. A more specific discussion from various perspectives is needed on the purpose and preferable contents of the learning activity through the work experience of junior high school students.

Increasing Number of Highly-Educated Female Population: Choice of Field of Study, Career and Marriage

Junichiro Ishida (Osaka University)

There is a clear tendency for men to invest more in skills that lead to higher wages in the labor market. This article provides a theoretical framework to understand this tendency and shows that this gender gap can be attributed to distorted incentives faced by women. The analysis reveals why policy interventions such as affirmative action programs or equal employment opportunity laws that directly subsidize the acquisition of skills for women would not be effective in closing the gender gap, and instead suggests that extensive family policies are generally more effective in this regard.

Determining Factors of Children's Educational Outcomes

Miki Kohara (Osaka University) and **Fumio Ohtake** (Osaka University)

This article looks at economic studies carried out on the factors which determine children's educational outcomes. A number of studies have been conducted on how direct or indirect investment in children's education influences their educational outcomes. In this article, the influences of parents' income and family environment on children's educational outcomes will be discussed in three respects: (1)influence of educational investment in terms of both money and time after birth of a child; (2)influence of family situation at the time of birth; and (3)influence of health investment before (fetal period), at and after birth of a child. When measuring the influences (cause-and-effect) of the single factor of family environment on children's educational outcomes, through positive analysis from economic perspectives, there are no results indicating a clear relation between factors of family structure such as single-parent family and parents' income and children's educational outcomes. Likewise, there are no research results showing a clear relation between working mothers and children's educational outcomes. In contrast, there are considerable consistencies among researches indicating that the heavier a baby weighs at birth, the better his/-her educational outcomes, though the level of influence varies. The second half of this article will discuss the relations among labor market situations, children's educational outcomes and birth-weights based on prefectural data. Though limited in scale, the data indicates that children born during periods of higher unemployment weigh less than those born during periods of lower unemployment, and that there are positive correlations between birth-weight and future academic achievement. While regional differences in academic achievement often attract attention, it may be necessary to analyze how the family environment before childbirth and the family environment in which children live affect their educational outcomes in the future. There is an urgent need to gather empirical research data on these topics in order to develop policies to reduce the educational gap.