

The Long-term Effects of the 1995 Hanshin–Awaji Earthquake on Wage Distribution[†]

Fumio Ohtake¹, Naoko Okuyama², Masaru Sasaki³, Kengo Yasui⁴

December 10, 2012

Abstract: The objectives of this paper are to explore how the wage distribution in Japan has shifted over the past 17 years since the 1995 Hanshin–Awaji Earthquake, and to identify who incurred the largest wage loss: low-wage workers, middle-wage workers, or high-wage workers. To do so, we employ three decomposition methods developed by (i) Oaxaca (1973) and Blinder (1973), (ii) DiNardo, Fortin, and Lemieux (1996) (hereafter DFL), and (iii) Machado and Mata (2005) and Melly (2006). Our findings are as follows. First, the Oaxaca and Blinder decomposition analysis shows that the negative impact of the earthquake is still affecting the mean wages of male workers. Second, the DFL decomposition analysis shows that middle-wage workers would have earned more had the 1995 Hanshin–Awaji Earthquake not occurred. Finally, the Machado–Mata–Melly decomposition analysis shows that the earthquake had a large adverse impact on the wages of middle-wage workers, and that their wages have not yet recovered to pre-earthquake levels. This result is similar to that from the DFL decomposition analysis. In the case of female workers, the negative impact of the earthquake on wages still existed for high-wage females as at March 2012 when the survey was conducted.

[†] Very preliminary. Do not cite without permission from the authors.

¹ ISER, Osaka University

² ISER, Osaka University

³ Graduate School of Economics, Osaka University

⁴ Department of Economics, Ritsumeikan University