

# Overtime premium and hours of work: Lessons from the mandatory increase in the premium rates<sup>☆</sup>

Yukiko Asai\*

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## Abstract

This study investigates labour input adjustment following the imposition of a work hour regulation. In particular, it evaluates the impact of a mandatory increase in the overtime premium rate from 25% to 50%. Since the reform applied only to overtime of more than 60 hours per month, it increased the marginal cost of extremely long work hours. In other words, the reform taxed the employment of workers working long hours and incentivized employers to create new jobs or increase the work hours of employees who worked shorter days. In addition, the reform was limited to workers in large-scale firms and non-discretionary workers. Therefore, I identify the causal effects of the reform by comparing changes in work hours of those affected by the reform with those unaffected. The results show that the reform decreased work hours and the incidence of overtime beyond 60 hours per month. Thus, following the reform, employees worked less extreme overtime hours but were paid lower overtime compensation. Next, to determine whether the reduced hours are substituted by unaffected workers, I investigate whether the hours distribution among the workers changed and found that immediately after the reform, employees reduced their overtime to 60 hours or less. However, I found limited evidence suggesting that the reduced extreme overtime hours were redistributed to those working shorter work-

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\*Corresponding author. Post-doctoral fellow, Institute of Social Science, University of Tokyo. Visiting scholar, Department of Economics, University of California Berkeley. E-mail: y\_asai@iss.u-tokyo.ac.jp.

days, female workers, and non-regular workers. In conclusion, although the reform decreased the net overtime hours, it did not contribute towards the redistribution of working hours and the reduced hours are absorbed as a labour cost.

*Keywords:* Overtime Premium, Employment, Work Hours

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## 1. Introduction

While some employees work extremely long hours, some others work shorter days. The unequal distribution of work hours has contributed to the growing wage disparity among workers.<sup>1</sup> To mitigate this unequal distribution and spread work equally, especially in times of recession, several countries have attempted to regulate work hours by reducing the standard work hours or imposing an overtime premium.

Such work hour regulations often raise the hours elasticity of labour cost and induce substitution away from long working hours and towards creating new jobs or increasing the hours of those who work shorter days.<sup>2</sup> In particular, when the distribution of hours is right-skewed, policies to decrease standard work hours or increase the overtime premium rate beyond a certain threshold can reduce the number of employees working long hours and create a proportional change in hours distribution.

To investigate whether such regulations contribute to the redistribution of worker hours, this study focuses on the impact of an increase in overtime premium at the top of the work hour ladder. Although several studies have examined the effects of regulating overtime premium on factor substitution<sup>3</sup>, the mechanism underlying such regulations and their contribution to the work spread remain to be fully investigated. Given that approximately about one-fifth of workers work overtime, it seems imperative to understand how such overtime regulations can impact the labour market. For example, in the United States, about 11.3% employees worked 50 hours or more per week in 2013. This is also true for 12.5% employees in 30

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<sup>1</sup>See, for example, Landers et al. (1996), Rosenthal and Strange (2008), and Kuhn and Lozano (2008).

<sup>2</sup>See Hunt (1999) and Skuterud (2007) for detailed discussions.

<sup>3</sup>For example, Hamermesh and Trejo (2000) and Trejo (2003).