Time Zones, Shift Working and Outsourcing through Communications Networks¹

Yuji Matsuoka² and Marcelo Fukushima³

Kobe University Working Paper Series No. 248, February 2009

Abstract

We build a trade model with two countries located in different time zones, a monopolistically competitive sector in which production requires differentiated goods produced using day and night labor, and shift working disutility. Consumers choose between working at a day shift or a night shift and firms may choose to ``virtually" outsource foreign day time labor by using communications services. We found that the higher the disutility of working at night is, the smaller is the number of varieties produced and the lower is welfare. When outsourcing occurs, it is more beneficial when relative costs of outsourcing are low and the shift disutility is high.

Keywords: Communications networks, shift work, time zones, outsourcing

¹ The authors would like to thank Toru Kikuchi, Toshihiro Okubo, Takahiro Sato, Tetsugen Haruyama and Colin Davis for their helpful comments. Any errors are the responsibility of the authors.}

² Corresponding Author: Yuji Matsuoka, Graduate School of Economics, Kobe University, 13-22-503 Shinoharadai Nada-ku, Kobe-shi, 657-0016, Japan. <u>081E108E@stu.kobe-u.ac.jp</u>

³ Marcelo Fukushima, Nihon University, Population Research Institute 12-5 Goban-cho, Chiyoda-ku, Tokyo 102-8251, Japan; e-mail: fukushima.marcelo@nihon-u.ac.jp