The Unexpected Costs of Expertise: Evidence from Highly Specialized Physicians *

Yi Cheng †

Job Market Paper

Abstract

As labor becomes more skilled and specialized, firms must match their employees’ particular skills to tasks which they are suited for (“skill–task matching”). This paper shows that when demand is unpredictable, maintaining good matchings can be both challenging and costly to firms, and that allowing a degree of skill–task mismatch can be optimal. This paper focuses on hospitals’ responses to demand shocks induced by unscheduled high-risk admissions, paying special attention to the assignment of physicians to patients. In the event of such admissions, hospitals summon physicians who specialize in treating high-risk patients and have more intensive practice styles. These physicians also treat previously admitted lower-risk patients, especially when hospitals are congested, leading to increased treatment intensity for those patients. However, no improvement in health outcomes is seen. While this low productivity could potentially be viewed as inefficient, this study provides evidence that hospitals’ decisions to sacrifice physicians’ skill advantage can be efficient when achieving a good patient–physician matching is particularly difficult, which is likely when congestion is high. These findings underscore the importance of accounting for all costs in assessing skill–task matching in highly specialized production.

*I thank Douglas Almond, Micheal Best, Sandra Black, Janet Currie, Joseph Doyle, Francois Gerard, Wojciech Kopczuk, Bentley MacLeod, Suresh Naidu, Adam Sacarny, Jeffrey Shrader, Ashley Swanson, Miguel Urquiola, my fellow Ph.D. classmates, and participants of the Columbia Applied Micro Research Methods Colloquium and Applied Micro & Labor Workshop for helpful comments. I also thank doctors Brett Anderson and Christopher Almond for helpful discussions regarding neonatal care for high-risk infants. All errors are my own.

†Department of Economics, Columbia University. Email: yi.cheng@columbia.edu