

Basic Skills or Major-Specific Knowledge? Sources of Wage Penalties for Working Outside the Major Field of Study

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January 19, 2017

Abstract

This paper examines the sources of wage penalties for working outside the major field of study. Recent research shows that workers in a job unrelated to their major field of study experience significantly lower wages than those in a related job. A substantial amount of human capital may be underutilized. Identifying the sources of the wage penalty is important in terms of how to decrease the inefficient use of human capital, students' college major choice, and type of human capital accumulated in college. I use the 1993 National Survey of College Graduates and the O*NET to divide the sources into basic skills and major-specific knowledge. I assume that every occupation can be conducted by a combination of basic skills and that major-specific knowledge helps a worker organize the skills well in a related job. The results show that, on average, individual characteristics explain more than half of the raw wage penalty and that 21% - 41% of the remained wage penalty can come from the mismatch in underlying basic skills. There are wide variations across degree types and fields of study.

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