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Salary and job satisfaction among economics and business graduates: The effect of match between degree field and job

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ABSTRACT

The purpose of this paper was to compare employment outcomes for individuals who majored in economics and business administration. Economics majors were more likely to work in a job unrelated to the degree field than business administration majors. Economics majors earned higher wages, and mismatch had a smaller effect on wages for economics majors than business majors. Mismatch also had a smaller effect on aspects of job satisfaction for economics graduates compared to business graduates.

1. Introduction

The college major selected by a student can have an important effect on the knowledge learned during college. Some majors focus on field specific knowledge while others teach general knowledge that applies to a variety of fields (Borden et al., 2000). Hansen (1986, 2001), proposed a list of basic proficiencies that economics majors should possess. These proficiencies include the ability to access existing knowledge, show a command of existing knowledge, interpret existing knowledge, interpret and manipulate economic data, use existing knowledge to explain issues, and create new knowledge. Given the focus on general knowledge, Hansen (1986, 2001), argued that an economics degree is a liberal arts degree and "most students end up doing work that is at most only loosely related to their undergraduate majors" (Hansen, 1986, p. 150). Indeed, gains in economics knowledge are associated with increased critical thinking skills (Borg et al., 2010), which are valuable in many different careers.

In contrast to the field of economics, business programs accredited by the Assembly of Collegiate Schools of Business (AACSB) tend to have curriculums that focus on practical skills. While the AACSB does not require a specific curriculum, the accreditation standards require the curriculum prepare students for business and management positions. As such, students take numerous courses in accounting, finance, human resource management, strategic management, and marketing. Thus, graduates that majored in economics and business leave college with different knowledge sets.

The focus on field-specific knowledge in business programs and general knowledge in economics has implications for the career paths of graduates, and the match between the college major and future jobs. The National Center for Education Statistics (NCES, 1999) reported that only 16% of social science majors who graduated in 1990 had full-time jobs in 1991 closely related to their major. This compares to a 39% average across all majors. The proportion ranges from 83% for health

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majors, to 50% in engineering, to 11% among the humanities placing the social sciences near the lower end of the range. The match between major and job was found to be the strongest indicator of degree satisfaction (Kressel, 1990) and an indicator of overall job satisfaction (Borden et al., 2000). Robst (2007a,b) used the 1993 National Survey of College Graduates to examine the wage effects of mismatch based on the match between worker's college degree field and work, as well as how the wage effects differed across reasons for accepting such a position. Workers mismatched based on type of schooling earned less than well matched college graduates.

The purpose of this paper is to examine employment outcomes related to the match between degree field and job for individuals who majored in economics and business. The selection of business administration as the comparison group was driven by the number of studies that compare the majors. Willis and Pieper (1996) and Salemi and Eubanks (1996) suggested a possible association between the number of business majors and the number of economics majors, positing that these majors are complements for one another. Salemi and Eubanks (1996) argued that students who major in economics are one of two types: discouraged business majors and other economics majors. Because of the tendency of rejected business school applicants to choose economics, the rise and fall in the number of economics majors is highly correlated with the rise and fall in the number of discouraged business majors. Thus, an increase in popularity of business may benefit economics as excess business majors may spill over into economics. The reverse is also true, with declining popularity affecting both similarly due to decreased demand and decreased spill over. Willis and Pieper (1996) termed this the demand-for-business-major hypothesis, while Salemi and Eubanks (1996) called their explanation regarding the fluctuation of economics majors the discouraged-business-major hypothesis.

Willis and Pieper (1996) explored whether students selected economics as a major based on future job prospects at the time of selecting the major, including beginning and potential lifetime earnings. Black, Sanders, and Taylor (2003) found that economics majors earned 13% more than other social science majors and 11% more than business administration majors. Likewise education, humanities, and arts majors earned considerably less than economics majors. The earnings of economics majors were similar to those of "hard science" majors such as chemistry, math, and physics (Black, Sanders, and Taylor, 2003).

This paper compares graduates with degree fields of economics and business administration to determine whether there are: (1) differences in the proportion of graduates that work in jobs unrelated to their degree field, (2) differences in wages for graduates who work in a job unrelated to the degree field, and (3) differences in reported job satisfaction for graduates who work in a job unrelated to the degree field. Propensity score matching techniques are used to address the non-random selection of college major.

2. Hypotheses

The prior literature leads to several testable hypotheses for this paper. We develop these hypotheses by focusing on the transferability of knowledge. Clearly, the distinction between general and field-specific knowledge is one of many factors that may affect the job search and the potential jobs available to graduates of the two fields.

First, according to Hansen (1986, 2001), economics focuses on general knowledge, while Robst (2007a) suggests that business majors learn field-specific knowledge. The general knowledge learned in an economics major is applicable to a wide range of jobs and occupations, even if the position is unrelated to economics. In contrast, the field-specific knowledge learned in a business major may not transfer as widely to jobs unrelated to the degree field. Such differences suggest that the degree of mismatch is expected to be smaller for economics majors than business administration majors. Given the greater transferability of knowledge, economics graduates are expected to be more likely to work in jobs unrelated to the degree field.

Hypothesis 1. Economics majors are more likely to work in a job unrelated to the degree field than business administration majors.

In addition to increasing the likelihood of economics graduates being mismatched, the greater transferability of knowledge will reduce the wage effect of working outside the degree field. Similarly, mismatch has an adverse effect on job satisfaction (Green and Zhu, 2010), in part, because workers are unable to utilize their knowledge on the job. The transferability of knowledge for economics majors also implies that the adverse effects on job satisfaction are smaller for economics majors than business majors.

Hypothesis 2. Mismatch has a smaller negative effect on wages for economics majors than business majors.

Hypothesis 3. Mismatch has a smaller negative effect on job satisfaction for economics majors than business majors.

3. Methodology

3.1. Data

This study uses the 2010 National Survey of College Graduates (NSCG) data. The survey is conducted by the National Science Foundation (NSF) and targets those with a bachelor's degree or higher in any field living in the United States during the survey week. The study sample is limited to individuals between the ages of 18 and 64, who are employed, and report