Social Science Research 57 (2016) 233–252

Contents lists available at ScienceDirect

Social Science Research

journal homepage: www.elsevier.com/locate/ssresearch

The value of educational degrees in turbulent economic times: Evidence from the Youth Development Study

Mike Vuolo [a,*], Jeylan T. Mortimer [b], Jeremy Staff [c]

[a] Department of Sociology, The Ohio State University, 238 Townshend Hall, 1885 Neil Avenue Mall, Columbus, OH 43210, USA
[b] Department of Sociology, University of Minnesota, 909 Social Sciences, 267 19th Ave S, Minneapolis, MN 55455, USA
[c] Department of Sociology, Pennsylvania State University, 211 Oswald Tower, University Park, PA 16802, USA

ARTICLE INFO

Article history:
Received 15 May 2014
Received in revised form 9 November 2015
Accepted 31 December 2015
Available online 14 January 2016

Keywords:
Great Recession
Employment
College dropout
Associate's degrees
Bachelor's degrees

ABSTRACT

Rising costs of higher education have prompted debate about the value of college degrees. Using mixed effects panel models of data from the Youth Development Study (ages 31–37), we compare occupational outcomes (i.e., weekly hours worked, earnings, employment status, career attainment, and job security) between educational attainment categories within year, and within categories across years, from 2005 to 2011, capturing the period before, during, and in the aftermath of the Great Recession. Our findings demonstrate the long-term value of post-secondary degrees. Bachelor's and Associate's degree recipients, while experiencing setbacks at the height of recession, were significantly better off than those with some or no college attendance. Vocational-Technical degree holders followed a unique trajectory: pre-recession, they are mostly on par with Associate's and Bachelor's recipients, but they are hit particularly hard by the recession and then rebound somewhat afterwards. Our findings highlight the perils of starting but not finishing post-secondary educational programs.

1. Introduction

The recent "Great Recession" in Europe and North America had particularly severe consequences, with skyrocketing unemployment rates for young workers (Norris, 2010), a lowering of sights (Johnson et al., 2012), diminished savings and wealth along with increased mortgage defaults and home foreclosures (Garson, 2013), and the prospect of future "scarring" with respect to career advancement and income (Blossfeld et al., 2008; Kahn, 2010). Workers who retained their jobs suffered along with those who lost them. Rather than terminating their employees during hard economic times and incurring future costs of replacement and training, employers often reduce the hours of existing staff, diminishing workers' paychecks and living standards. But even in the worst recessions, some individuals suffer great losses while others remain relatively unscathed (Grusky et al., 2011). Achieved characteristics, such as educational attainment, are likely to have pronounced effects on economic outcomes in both stable and recessionary periods.

In this article, we examine changes in five occupational outcomes (weekly hours worked, earnings, employment status, subjective career attainment, and job security) by educational attainment through the years surrounding the Great Recession. Using data from the longitudinal Youth Development Study (YDS), we are able to parse out differences both between

* Corresponding author.
E-mail addresses: vuolo.2@osu.edu (M. Vuolo), morti002@umn.edu (J.T. Mortimer), jus25@psu.edu (J. Staff).

http://dx.doi.org/10.1016/j.ssresearch.2015.12.014
0049-089X/

educational attainment categories (Bachelor's, Associate's, Vocational-Technical, some college but no degree, high school completion) within a given year, as well as within categories across years from 2005 to 2011 (ages 31–37). Thus, we capture the changes in the period before, during, and in the aftermath of the official recession in a cohort of young adults who completed their school-to-work transition during relatively stable economic times.

1.1. Educational credentials and occupational outcomes

Social scientists have had a long-term interest in the economic outcomes of educational degrees, known as the "sheep skin effect" (Spence, 1973; Bilkic et al., 2012). Given the lack of full information about job candidates' productivity, employers use educational qualifications as signals, indicating prospective employees' skills and abilities. Educational degrees may also serve as indicators of "non-cognitive skills," such as perseverance, self-regulation, and ability to learn. In light of their presumed greater productivity, employers attract degree holders by offering higher wages. As a result, signaling theory predicts that completers of secondary and higher educational programs will have higher entry wages than dropouts, even when they have equivalent years of schooling (Park, 1999). In the absence of information about degrees obtained, some scholars examine occupational outcomes in relation to particular years of education considered as proxies for degree attainment. Taking this approach, Belman and Heywood (1991) find distinct sheep skin effects on earnings by gender and race. Interestingly, while white men enjoy a significant sheep skin bonus from years of education indicating graduation from college (that is, 16 years), white women's wages show a sheep skin effect with years of education indicating high school graduation (12) and post-graduate degrees (17 or 18). Minority men and women obtain large earnings gains with years of education indicating advanced degrees.

In this article, we ask the question, to what extent do educational degrees distinguish earnings and other key occupational outcomes (i.e., employment status, number of hours worked, job security, and subjective career attainment) in recessionary periods? Commentators speak of the "lost generation" of young people who have the misfortune of entering the labor market under conditions of high unemployment generally, and even higher youth unemployment rates. A central concern is whether such young people eventually recover, or if "labor market scarring" persists throughout their careers. Much scholarly attention has thus been directed to measuring the effects of entering the labor market during economic downturns on wages years later (Altonji et al., 2014; Kahn, 2010; Oreopoulos et al., 2012).

The present study builds on this literature in three ways. First, most investigations of the sheep skin effect have been restricted to the work-related variables of great interest to labor economists, i.e, unemployment, wages, and hours of work. This study assesses these dimensions of work but also considers less tangible elements of the quality of work – a worker's sense of job insecurity and evaluation of the current job as the desired career. As unemployment rates increase, workers may worry about the security of their own jobs, and if they do lose their jobs, they may have to move outside their chosen career fields to maintain a continuing income stream.

Second, we examine a panel of youth who left high school or college and entered the labor force in relatively good economic times – during the decade of the 1990s. Unlike earlier concerns with the long-term effects of *entering* the labor force during recessions, we assess the impacts of educational degrees among workers in their thirties. We examine differences in the effects of their educational achievements on both objective and subjective occupational indicators in the relatively good and poor economic times of the early 21st century: before, during, and after the most recent recession.

Third, we extend beyond the more common interest in high school diplomas and four-year college degrees (Bilkic et al., 2012) to examine the implications of two educational qualifications in between these accomplishments. It is well known that four-year college degree holders, irrespective of their age, suffer less unemployment during a recession than less educated workers, though the most recent financial crisis hit them harder because of its widespread consequences across industries (Altonji et al., 2014). But little attention has been given to the implications of the two sub-baccalaureate achievements of interest, the Associates' degree and vocational-technical degrees or certification, for employment, earnings, hours, or job quality in good and bad labor markets. While these are often combined with those who enter but do not complete post-secondary programs in a category labeled "some college," their consequences for employment outcomes, both tangible and subjective, may be different. Associates' Degrees and Vo-tech certification may both have "sheep skin" potential, but their signals to the employer are likely distinct. The Associates' Degree implies "non-cognitive skills" of perseverance and follow-through, and depending on the Associates' program may also certify job-relevant skills (e.g., dental assistant, electrician). Vocational-technical certification signals quite specific training and skills. While workers with such certification may be laid off when their industries are hard-hit, they may also be the first to be employed, in light of their occupation-specific credentials, when conditions improve. In contrast, when presenting themselves to employers, those with only "some college," without a degree, may signal to the employer a lack of ability as well as a lack of motivation and perseverance.

Moreover, better educated workers are also more likely to have obtained "good jobs" in the primary labor market, with internal job ladders and expectations of long tenure with a firm, as well as higher wages and better working conditions (Kalleberg, 2011). Less educated workers are more likely to be found in the secondary labor market, with short-term or otherwise non-standard employment contracts. They are likely to be more quickly laid off when the labor market deteriorates. Those with "sheep skins" may, if they do become unemployed, also find new jobs more quickly because they engage in more active job search. They have more incentive to do so than those without educational qualifications since they can expect higher wage offers and better job conditions (Altonji et al., 2014).