Congratulations or condolences? The role of human capital in the cultivation of a university administrator

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ABSTRACT

Administrative skill is essential to organizational effectiveness. Yet, few studies examine how human capital investments over a career affect selection into administration. We use panel data for economists to estimate the probability of choosing administration over a pure academic track. The results show that, while research-specific human capital reduces the probability of becoming an administrator, general human capital increases it. There are also inferior administrative opportunities for women that have not improved over time and variation in the role of human capital according to institutional research mission. Thus, our results suggest academic leaders are not merely born, but cultivated through their human capital investments.

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1. Introduction

Although administrators in higher education play an essential role in the success or failure of one of the nation's oldest, largest and most important non-profit sectors, academics have historically perceived a move into administration as a backhanded promotion (e.g., Clotfelter & Rothschild, 1993; Ehrenberg, 1999). In particular, while there has been recognition that successful administrators are likely to have desirable innate and learned leadership qualities (e.g., Kim, 2002), there has often been the suspicion that administration is the career path followed by academics who are relatively less productive at least in the research dimension (e.g., Siegfried, 1997).

Nonetheless, prior work that has studied the effects of pay dispersion on turnover, job satisfaction and productivity for administrative positions has not explicitly examined the personal or career attributes of administrators (e.g., Pfeffer & Davis-Blake, 1992). This paper uses uniquely detailed data on the careers of academic economists to examine whether the career development of academics who become administrators differs systematically from their colleagues who remain in the purely academic track. Our analysis provides some of the first formal evidence that general versus research-specific human capital investments facilitate selection into administration, which is broadly consistent with findings for managers in other occupations (Singell, 1991).

Academia provides a particularly useful institutional setting to study the choice of an administrative career path versus a well-defined purely academic alternative career choice (e.g., Cameron, 1978). In particular, U.S. universities generally share a long-standing, common internal hierarchical structure and easily identifiable administra-

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tive positions that make comparisons across institutions more straightforward than in most public-sector or private-sector industries. Moreover, unlike the private sector, the relative reputation of these institutions is highly stable over time such that comparisons over the course of a particular academic's career, or between two academics at the same point in their careers but in different vintage cohorts, remain valid over a long span of time. Academic professionals also perform a relatively homogeneous set of job tasks (teaching, research and service), produce readily observable measures of output (published journal articles) and face promotion standards that are directly related to observed output (McDowell, Singell, & Ziliak, 2001).

A focus on academic economists also yields particular advantages for a study of the administrative career choice. Economists are overrepresented in higher levels of academic administration relative to their proportion of the academe (e.g., 2.6% of college presidents and 1.6% of provosts; Siegfried, 1997) and possess economic reasoning skills useful in administrative work (Ehrenberg, 1999). Although the market basket of skills possessed by economists may not make them fully representative of all administrators who hale from many disciplines, the relatively high salaries of economists yield higher opportunity costs for individual economists selecting into administration in comparison to faculty from other disciplines, which will tend to make the decision less about remuneration and more about the job-skill match.

We develop a probit model of the decision between administration and the pure academic track that is conditioned on an academic's training, career background, and academic performance. The empirical analysis uses detailed panel data for American Economic Association (AEA) members to analyze whether personal and organizational characteristics explain the likelihood that an economist is observed as an administrator. Our findings indicate that research-specific human capital investments and gender tend to reduce the probability of becoming an administrator, but also show that some academic tasks provide general human capital that facilitates the choice of administration. Several sensitivity tests that estimate the model by Carnegie research classifications reveal that the role of human capital in the economist's choice of administration differs with the research orientation of the institution. We also investigate the link between publishing productivity at the beginning of a 10-year career window and the likelihood of holding an administrative position at the end of the window, which confirms that research-specific productivity reduces the likelihood of selecting an administrative job.

2. Empirical methodology

We adopt a random utility approach where an economist becomes an administrator if the utility of undertaking this activity exceeds the utility of the next-best alternative use of the economist's time and resources. Thus, suppose the utility that academic i receives from an administrative relative to a non-administrative faculty assignment at time t (U_{it}) is a linear function of a vector of observable personal attributes (x_{it}) and a random error term (ε_{it}):

$$U_{it} = \beta x_{it} + \varepsilon_{it} \tag{2.1}$$

The economist becomes an administrator if $U_{it} > 0$, i.e., if $\beta x_{it} > -\varepsilon_{it}$, which can be estimated with a standard probit model:

$$\Pr[A_{it} = 1] = \Phi(x_{it}\beta) \tag{2.2}$$

where A_{it} is a dummy variable that equals 1 if economist i is an administrator at time t and Φ is the cumulative standard normal distribution function.

Since a panel of observations is available for each economist in our data, an alternative is to estimate the model with methods that take into account the influence of person-specific unobservable attributes λ_i that affect the utility of administrative relative to non-administrative assignments. The standard probit model (2.2) imposes the extreme assumption that λ_i is perfectly correlated with the variables in x_{it}. At the opposite extreme is the assumption that λ_i is perfectly uncorrelated with x_{it}, which leads to a random effects probit model:

$$\Pr[A_{it} = 1] = \Phi(x_{it}\beta + \lambda_i) \tag{2.3}$$

Since (2.2) and (2.3) represent opposite extremes, the resulting estimates can be interpreted as upper and lower bounds for the true effects. Generally, the random effects estimates are smaller in magnitude than the pooled probit estimates because they are derived under the assumption of no influence from the person-specific error component. We present and discuss the results of both specifications for comparison.[1]

The variables in x_{it} can be categorized into human capital measures, demographic and sociological factors, job-related attributes, labor market conditions and time. Among the human capital measures is quality-and-author adjusted publishing productivity. For each economist, the number of articles published is weighted by a journal quality measure, which uses the "Impact Factor" provided by the SSCI *Journal Citation Report* as a weight. The publication measure also uses the simple $1/n$ rule to adjust for the number of authors. Thus, changes in our publication variable indicate the effect of an additional quality-and-author adjusted journal publication on the probability of becoming an administrator. However, actual productivity is likely to be endogenous with respect to administrator status because administrators have less time to devote to research and those with relatively low tastes for research may be more likely to pursue administrative work. Therefore, in our initial base models, we do not include actual publication measures. Instead, we indirectly control for productivity with variables describing the age of an economist at the time of his or her PhD, the prestige of the PhD-granting institution, the size of the economist's entering

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[1] An intermediate assumption between these two extremes is that the heterogeneity has a nonzero but imperfect correlation with the covariates (a fixed effects probit model). However, fixed effects estimation primarily exploits within-person variation, which entails the need to observe the same economist as both an administrator and non-administrator. Relatively few economists in our sample have served both roles.