Conceptions of Professionalism among Aspiring Professionals and Managers in the United States: Evidence from the gradSERU Survey

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Abstract

Using survey data from more than 4,400 U.S. graduate students, we compare students' perceptions of how well they are prepared for leadership and management and for ethics and community responsiveness. These assessments are related to three conceptions of professionalism. The first, the neo-classical ideal, depicts a professional stratum that maintains an arm's length distance from business and managerial interests while maintaining a strong orientation toward professional ethics and client and community service. The second, the divergence thesis, argues for a division between higher and lower-status professionals, with the former oriented toward business and managerial interests and the latter oriented toward ethical concerns and client and community service. The third, the hybridization thesis, argues for a fusing of business and managerial concerns with ethical and community orientations. Using cluster and regression analyses, we find most support for the divergence thesis. We also find that hybridization is particularly strong among aspiring professionals studying for the most well-remunerated professional occupations and among students from socially dominant groups, including male students and students from upper-middle class and wealthy families.

Graduate level professional training is an important activity of universities. Some 13 percent of Americans (U.S. Census Bureau 2019) – and increasing proportions in other industrialized countries (OECD 2019) -- now hold graduate degrees. These people include accountants, architects, computer scientists, educators, engineers, lawyers, medical personnel, public policy specialists, social workers, and many other professionals. A sizeable proportion of these people hold positions of power and privilege in their societies. In addition to learning fundamental and specialized skills and knowledge relevant to their future work, graduate students preparing for the professions develop understandings of the meaning of professionalism or are reinforced in the understandings they have already developed (see, e.g., Cook, Faulconbridge and Muzio 2012; Costello 2005; Sheppard, Mactangey, Colby, and Sullivan 2008; Sullivan, Colby, Wegner, Bond and Shulman 2008). As the Bourdieusians would say, they begin to form a professional habitus (see, e.g., Bourdieu 1986).

In this paper we use novel data from a survey of some 4,400 graduate students at five major public research universities to examine the extent to which contemporary professional programs in the United States, in addition to providing occupationally specialized training, are seen as promoting two other purported features of professionalism: (1) leadership and management skills and (2) ethical and community orientations. These two additional dimensions inform competing conceptualizations of the contemporary meaning of professionalism and allow us to begin to adjudicate among them in so far as they are relevant to students' assessments of their socialization experiences in graduate programs.

The three competing conceptualizations of professionalism we consider are: (1) The *neo-classical ideal*. This idea posits that professions stand at arm's length from the utilitarian and pecuniary interests of business and management and are defined instead by their specialized expertise, their client and community serving orientations, their ethical commitments, and their regulations against malpractice (see, e.g., Tawney 1948). (2) The *divergence thesis.* This thesis argues that the professions are now divided between a dominant stratum of market-oriented "expert" professions and a subordinate stratum of "socially oriented" professions. According to this thesis, the former are comfortable with business and management priorities, while only the latter retain a broader, value-based community orientation and an arm's length stance in relation to business and management (see, e.g., Brint 1994). (3) The *hybridization thesis*. This thesis argues that the professions are now composed of a fusion of elements once considered antithetical. These elements include an embrace of *both* market-oriented business and managerial orientations *and* socially-oriented ethical and community considerations (see, e.g., Noordegraaf 2007). Each of these conceptualizations assumes that claims to and demonstrations of specialized expertise are a universal element of professionalism. We make the same

assumption and do not investigate the transmission of occupationally specialized expertise in graduate professional programs.

We note that these three conceptualizations do not encompass all of the characteristics that social and behavioral scientists have associated with professionalism – for example, they do not address interpersonal capacities to lend a sympathetic ear while maintaining an objective distance or to use a combination of knowledge, experience, and judgment to make decisions as practitioners (Schoen 1983). They do, however, encompass the critical *relational* dimensions that are at the heart of contemporary debates – i.e. (1) closeness to/distance from business and management and (2) closeness to/distance from ethical and community concerns.

The idea that the socialization experiences of young adults are influenced by broader trends in culture and society is a long-standing theme in sociology (see, e.g., Gerth and Mills 1953) and in educational sociology (see, e.g., Powell, Farrar, and Cohen 1985). However, the relationship between graduate school socialization experiences and evolving conceptions of professionalism has been explored thus far mainly by historians of earlier eras of professionalization (see, e.g., Bledstein 1976; Perkin 1969; Wiebe.1967). We contribute to this literature by using contemporary survey data to explore evolving conceptions of professionalism. As far as we know, these are the first data to compare explicitly the perceived programmatic emphases found in graduate programs preparing students for a wide range of professional occupations across multiple institutions.

Specifically, we seek to determine which, if any, of the three conceptualizations holds up to empirical analysis of the preparation students say they have received in professional programs and, if none do, what a better conceptualization would look like. In the analysis we control for several factors that may influence students' perceptions of the extent to which graduate programs

emphasize the business/managerial and/or ethical/community-serving dimensions of professional socialization.

Our research questions are as follows:

1. To what extent do the competing conceptions of professionalism accurately describe central tendencies in the socialization experiences of aspiring professionals?
2. To what extent are students in particular professional fields aligned with each of the three conceptions if professionalism?
3. To what extent are students in particular demographic groups aligned with each of the three conceptions of professionalism?
4. To what extent are high scores on the leadership/management dimension associated with high scores on the community/ethics dimension of professionalism and vice versa?

We analyze questions from the professional development module of the 2017 and 2018 gradSERU surveys. These questions ask students to rate how well their program has prepared them for leadership, entrepreneurship, and management skills, on the one hand, and for ethical behavior, integrity, respect for cultural diversity, and community values, on the other. The data consequently allow for the first investigation of the extent to which professional programs are consistent in upholding values distinct from business and management, as emphasized in the neo-classical model; are diverging in their emphases between business-oriented and community-oriented values; or are fusing ethical and community-serving elements of the neo-classical model with the market-and organization-oriented priorities of management.

The findings reported in this paper are based on cluster and regression analyses. Cluster analysis opens a window onto the most common patterns in the sample regarding leadership/management and ethics/community. We find four clusters of roughly equal size. These include a cluster of students who are high relative to the sample as a whole on both leadership/management and ethics/community; another group that is moderately high on leadership/management and moderately low on ethics/community; a third group low on leadership/management and high on ethics/community; and a fourth group low on both components. We find a disproportionate number of students preparing for the most highly remunerated professions in the first cluster; a disproportionate number of students in technical fields such as engineering in the second cluster; a disproportionate number of students in cultural and human service fields in the third cluster; and a disproportionate number of students in the basic arts and sciences in the fourth cluster. These findings provide support, albeit imperfect, for the divergence thesis. We also find some differences in distributions across the four clusters by social class, race-ethnicity, and especially by gender.

The regressions allow us to identify more precisely the types of students who score high on leadership/management and those who score high on ethics/community. Students in a wide range of fields feel well prepared in relation to ethics and community orientations, but only students enrolled in business, law, and medicine tend to indicate that their programs prepare them well for leadership and management. The explanatory power of the model improves only marginally when we include control variables related to students' backgrounds and academic circumstances. The explanatory power of the model improves dramatically when we include the ethics and community component into the model for leadership and management and when we include the leadership and management component into the model for ethics and community.

This result indicates that preparation for leadership and management is not in contradiction to preparation for ethical and community considerations for the sample as a whole, but rather that the two tend to go hand in hand. It also suggests that students who score high on both scales may represent a kind of vanguard of a hybridized form of professionalism which includes preparation for the professions' newer emphases on leadership and management as well as their older emphases on ethics and community orientations. This group is not yet numerically dominant in the sample we analyze, but it may well be socially dominant, as we argue below.

Three Conceptions of Professionalism

To provide context for the study, in this section we discuss in greater detail the three competing conceptualizations of the meaning of contemporary professionalism that we consider.

The Neo-Classical Ideal. The original fee-for-service professions of medicine and law presented themselves as using specialized expertise to serve their clients' interests. They explicitly excluded narrow pecuniary concerns as defining features of their professions. Instead, they emphasized trust relationships and service oriented to the well-being of clients (Elliott 1972; Larson 1977: Reader 1966). They developed training and licensing programs to create standards for learning and practice. They policed themselves by excluding those who could not pass licensing exams and further by requiring adherence to ethics statements and to the judgment of professional bodies used to root out malpractice. They claimed autonomy on the basis of their trained expertise and their ethics, and they imposed market monopolies through their credentialing and licensing requirements (see, e.g., Krause 1996; Larson 1977). Initially, fee-for-service professionals were men who typically came from advantaged families. They frequently accumulated high incomes and wealth from their professional practices, but they insisted that

their occupation existed to serve their clients and not their own self-interests (Elliott 1972; Larson 1977; Reader 1966).

In the early 20th century, many more professionals began working as salaried employees in large organizations rather than in private practice. Even so, the claim to serve clients' interests remained as a central feature of professionalism through the early 20th century and, importantly, it was also generalized beyond clients as service to society. Thus, the original fee-for-service ideals were abstracted to fit the circumstances of a society increasingly conscious of occupational functions. Because of this generalization of professional service as a contribution to the larger society we describe this as a "neo-classical" rather than as the "classical" ideology of professionalism. This abstracted version of the classical idea of professionalism found expression in the works of early and mid-20th century advocates and analysts. As R.H. Tawney (1948) wrote:

> 'Professionals may, as in the case of the successful doctor, grow rich; but the meaning of their profession, both for themselves and for the public, is not that they make money, but that they make health, or safety, or knowledge, or good government, or good law…[Professions uphold] as the criterion of success the end for which the profession, whatever it may be, is carried on, and [subordinate] the inclination, appetites, and ambition of individuals to the rules of an organization which has as its object to promote the performance of function.'[94-5]

These functions, for Tawney and for many other mid-20th century analysts of the professions, were activities that embodied and expressed the idea of larger social purposes (see also Carr-Saunders and Wilson 1933; Marshall 1951; Parsons 1939).

Trait theories of the professions mirrored Tawney's emphasis on specialized expertise, lengthy formal instruction, performance of an important social function, and ethical

commitments – an occupational complex leading to comparatively high salaries, high social status, and high levels of autonomy at work. A contrast with the more purely pecuniary interests of business people is especially evident in this work (see, e.g., Carr-Saunders and Wilson 1933; Goode 1957; Greenwood 1957; Parsons 1939).

The Divergence Thesis. Brint (1994) argued that the coherence of the professional stratum was never as strong as the neo-classical and trait theorists argued, and that it broke down completely during the course of the 20th century, leading to two distinct conceptions of professionalism. Some salaried professionals, such as chemists and engineers, were embedded within large for-profit corporations by the late 19th century and accepted managerial priorities and the profit motive from the beginning (Author et al. 1999). These occupations were not much examined by theorists of the professions and professionalism. By the middle of the 20th century, he argued, two divergent conceptions of professionalism were embraced in different segments of the professional stratum. The first, which he termed "expert professionalism," was characteristic of professionals whose work was conducted mainly within large organizations in the private sector. These professionals emphasized specialized expertise and downplayed service to society in favor of service to their organizations. They expressed relatively little discomfort with market logic or managerial controls. A wide range of occupations fit the description of "expert professionals," including certified public accountants, chemists, engineers, management consultants, corporate lawyers, and also managers who took professional degrees. He described the second form of professionalism as "social trustee professionalism." This second version of professionalism, he argued, was dominant during the early 20th century Progressive period in the U.S. and helped to unify the professional stratum at that time. As "expert professionalism" grew in importance, however, "social-trustee professionalism" became associated primarily with

public sector, cultural, and human services professionals. It became a claim for distinction that compensated for a relative decline in status. The members of these occupational groups retained the original arm's length attitude toward business and management and continued to represent themselves as serving broader social purposes. Among the professions maintaining the traditions of "social-trustee professionalism," were artists, educators, journalists, urban planners, and social workers. Social trustee professionalism thus became an ideology associated mainly with the subordinate as opposed to the dominant strata of professionals.

Brint (1994) supported the divergence thesis by examining the distribution of political attitudes and identifications of professionals by occupational category, income level, and sector (see also Brooks and Manza 1997; Macy 1997; Zipp 1997). Author et al. (1999) found patterns of variation largely consistent with the divergence thesis in the speeches of leaders of technical-scientific as opposed to socio-cultural professional associations during the period 1870-1970. Further support for the thesis can be found in ethnographic work comparing the socialization of lawyers and social workers (Costello 2005), that of doctors and nurses (Larsson and Hall-Lord 1993), doctors and social workers in health care settings (Mizrahi and Abramson 1985), and Ph.D. students in the "hard" (or quantitative) as opposed to the "soft" (or interpretive) academic disciplines (Brecher 1989; Clark 1987).

The "Hybridization" Thesis. Recent discussions of professionalism have focused on the extent to which managerial responsibilities and values have become embedded in professional practice as a result of changing work responsibilities and neo-liberal and "new public management: ideologies (Noordegraaf 2007, 2015). It has been well-known for some time that a majority of professionals have managerial responsibilities of one type or another (Freidson 1985: chap. 3; see also Zussman 1985). These responsibilities include office planning, mentoring

associates, and supervising assistants. Even those who do not have formal managerial responsibilities are now often expected to incorporate managerial priorities into their work practice. This is true of public as well as private sector professionals. Considerations of revenue, cost, efficiency, consumer demands and organizational priorities have become embedded in professional practice (see, e.g., Exworthy and Halford 1999; Scott, Ruef, Mendel and Caronna 2000; Scott 2008). Conversely, a sizeable proportion of managers claim to incorporate professional expertise into their work (Grey 1997; Hallett and Gougherty 2018; Hodgson 2005; Mintzberg 2004). Moreover, employers of financial services providers, management consultants, and managers have adopted professional ethics and formal qualifications, potentially accelerating the fusion of professionals with management (Mintzberg 2004; Hodgson 2005).

The hybrid form of professionalism can be defined by a at least a deference to and in many instances an embrace of managerial priorities together with a continued emphasis on specialized expertise, formal qualifications, and commitment to high ethical standards and broader social purposes. It is thus a fusion of elements drawn from the neo-classical ideal of professions mixed with the newer managerial orientations (Faulconbridge and Muzio 2008). For Noordegraaf (2007), this fusion exists mainly at the level of ideological assertion. Neither managers nor professionals are able to make good on all claims for autonomy and authority at work because all are subject to higher level managerial controls and protocols, but claims to professional expertise and broader community service and ethical principles create opportunities for successful *situational* expansion of claims for autonomy and authority. Rather than reflecting a standardized and routinized environment of deference to specialized expertise, professionals' successful claims to autonomy and authority have become dependent on persuasion through "continuous interpretation and meaning construction" (774).

We provide an overview of these three conceptualizations of professionalism in Table 1, including how we construe the priorities of training and socialization in graduate programs associated with each one. Our approach is to show the extent to which each one has influenced students' perceptions of their preparation for professional work.

Table 1: Three Conceptualizations of Professionalism

Profess-ionalism Concept	Exemplary Author	Advanced Degrees/ Trained Expertise	Orientation to Social Purposes[1]	Orientation to Managerial Purposes
"Neo-Classical"	Tawney (1948)	Yes	Yes	No
Divergence	Brint (1994)	Yes	Varies (mainly in socio-cultural & human services professions)	Varies (mainly in business & scientific-technical professions)
Hybrid	Noordegraff (2007)	Yes	Yes	

Note:

[1] As used in this context, the term "social purposes" is intended to indicate a broader community orientation and a concern with ethical standards in service to clients and the broader society.

Data and Methods

Sample

The gradSERU survey is the first U.S.-based survey to investigate the educational experience of graduate and professional students using standard questions across multiple

research university campuses.[1] The survey includes questions on a wide variety of topics, including mentoring, financial aid, physical and mental health issues, time use, and skill development. Our data is drawn from the more than 4,400 respondents at five major public research university campuses who responded to questions in both the core and the professional development modules of the survey.[2]

In addition to students preparing for applied professional occupations, we include in these analyses graduate students in basic arts and sciences fields. A majority of these students are preparing for academic careers (Finkelstein, Conley, and Schuster 2016: chap. 4). Like other professionals, academics use expert knowledge to bolster claims for autonomy and authority at work. In addition, like other professionals, their access to positions is dependent on educational qualifications which serve both to protect clients from unqualified practitioners and to limit competition. At the same time, we are mindful of the differences between aspiring academics and other aspiring professionals. Academics provide much of the research that influences professional practice, and they train the next generations of practitioners (Abbott 1988; Freidson 1985: chap. 4). No other professions are as deeply engaged in research or teaching. As we show below, aspiring academics tend to score lower on the leadership/ management component and

[1] The gradSERU survey is a joint product of the Center for Studies in Higher Education at UC-Berkeley and the Institutional Research Office at the University of Minnesota. It is fielded at major public research universities in the United States and internationally.

[2] We dropped 2678 cases because these respondents provided no information on their race or ethnicity. Of this dropped cases, 1210 were international students.

those in quantitative fields also tend to score lower on the ethics/community component. The explanation for these findings may be that the preparation they receive, and their own interests, principally lie elsewhere. In supplemental analyses discussed below, we provide evidence for this interpretation.

Outcome Variables

We analyze responses to 15 questions drawn from the professional development module of the survey. These questions address students' assessment of how well their programs have prepared them with regard to training of (1) leadership and entrepreneurial skills, (2) people and project management skills, (3) conflict resolution skills, (4) ethical behavior, and (5) valuing community perspectives. Each one of these five broad categories includes three questions related to facets of the construct. Thus, for example, the following questions were asked in the broad category people and project management skills: "How well has your program prepared you for each of the following: (1) leading and collaborating with a wide range of individuals and teams, (2) supervising individuals with a wide range of experiences and backgrounds, and (3) completing projects successfully and on time." Response categories for each question are: "not at all well," "slightly well," well," "very well," and "extremely well."

For the cluster analysis, we entered the 15 items into the k-means clustering algorithm. In these analyses, the items on leadership/management tended to co-vary, as did the items on ethics/community. In some clusters these two sets of items showed relatively high mean scores; in other clusters they showed relatively low mean scores. In preparation for the regression analysis, we first included the 15 items in a principal components analysis. Consistent with the results of the cluster analysis, this analysis yielded two components. Each one of the questions on leadership, management, and conflict resolution factored on to a first principal component.

Each one of the questions on ethical behavior and valuing community factored on to a second principal component. We performed a promax rotation and then calculated a weighted component score for each observation. The questions included in the leadership/management and ethics/community components are summarized in Table 2, together with statistics derived from the principal components analysis.

Table 2: Two Dimensions of Professionalism Derived from Principal Components Analysis

Construct	Questions	Weight
	How well has your current training prepared you for:	
Leadership/ Management	1. Leading, influencing, & inspiring	.363
	2. Taking risks	.352
	3. Contributing to professional communities	.332
	4. Collaborating w/wide range of individuals & teams	.345
	5. Supervising individuals	.359
	6. Completing projects successfully and on time	.268
	7. Advocating for self & others	.316
	8. Engaging in difficult conversations	.308
	9. Moving a group from discord to shared goals	.331
Ethics/ Community	1. Conduct with high level of integrity	.359
	2. Making ethical and fair decisions	.375
	3. Treating others fairly & equitably	.404
	4. Respecting differing opinions & backgrounds	.434
	5. Recognizing a wide range of cultural perspectives	.435
	6. Promoting inclusion, belonging, &	.422

Community

Source: gradSERU 2017-2018 Professional Development Module

Logically, a high level of correspondence would be expected between student assessments of the training they have received and actual programmatic emphases; it is unlikely that programs that pay little attention to leadership and management skills will be assessed as providing strong training in these areas. Similarly, it is unlikely that programs that pay little attention to ethical behavior or community perspectives will be assessed as providing strong training in these areas. In this respect, students' assessments of their preparation in the domains of leadership/management and ethics/community should reflect the conceptions of professionalism embedded in their programs. At the same time, we cannot expect a perfect correspondence between student assessments and programmatic emphases, because these assessments may also vary by students' initial expectations or by characteristics that lead different students to engage with aspects of their programs that contribute to the values and skills in which they are interested. Student perceptions of what their programs emphasize matter and may reflect, at least in part, what they personally value in the preparation they have received. For this reason, we control for a number of variables that could influence students' socialization experiences, including social class, race-ethnicity, gender, year in program, and university attended. We also include component scores for ethics and community in regressions on the leadership and management scale and component scores for leadership and management in regressions on the ethics and community scale. We do so to investigate whether the distinctive value positions of students may be more important than field-level differences or students socio-demographic characteristics as covariates in relation to their conceptions of professionalism.

Covariates

The divergence thesis predicts a division in conceptions of professionalism associated with professions close to and distant from the power centers of the American economy. We classify the following programs as training students for positions in the dominant stratum of business and technical professions: (1) business/management, (2) law, (3) engineering/ architecture, (4) computer science/engineering, (5) medicine, (6) other health professions (including dentistry and veterinary medicine), and (7) public policy/administration. We classify the following programs as training students for positions in the subordinate stratum of cultural and human services professions: (1) arts, (2) journalism/communication, (3) nursing, (4) psychological counseling, (5) education, and (6) social work. We classify doctoral students in the following basic fields of arts and sciences as academic professions: (1) mathematics/ statistics, (2) physical sciences, (3) life sciences, (4) economics/political science, (5) psychology, (6) anthropology /sociology, (7)) history, and (8) literature and languages.[3] We categorize psychology both as a human services profession and as an academic field because the professional field of counseling psychology is a prominent specialization for graduate students in

[3] Small Ns for some professional fields required that we either merge or eliminate the fields. We did so in the case of fields with one percent or fewer of respondents. Some of these mergers were not difficult to justify on conceptual grounds, such as the mergers of the small field of statistics with mathematics, the merger of the small field of anthropology with sociology, and the merger of the small field of accounting with business. In less obvious cases, we searched for the nearest neighbor, merging the small field of political science with economics and the small field of architecture with engineering. We eliminated the small field of parks, recreation, fitness, and leisure because we could not find a near neighboring field.

this field, as are research specializations. We use agricultural/environmental sciences as our reference category in regressions because it is poised between the dominant and subordinate strata of professional training programs and includes both professional and academic programs.

We include in our regressions three demographic variables as controls: (1) self-identified social class of parents, (2) race/ethnicity, and (3) gender. Research in social psychology suggests that higher SES individuals and men consistently score higher than lower SES individuals and women on social dominance orientation (Pratto, Sidarius and Levin 2006), suggesting that men's greater interest in leadership and management may confound field-level orientations. Research is not as robust on the relationship between race/ethnicity and social dominance orientations, but we hypothesize that historical experiences of discrimination may encourage a higher valuation on ethics and community as a complement to leadership and management orientations among racial-ethnic minorities, as well as among women (see, e.g., Gilligan 1985).

We divide social class into four categories based on student self-reports of their social class when they were growing up: (1) poor/lower-class, (2) working-class, (3) middle class, and (4) upper-middle class/wealthy. We include wealthy with upper-middle class because of the small number of individuals who categorized labeled themselves as coming from wealthy families. We use middle-class students as the reference category. We dichotomize gender and code race/ethnicity into five categories: African-American, Asian/Asian American, Hispanic, White, and Other Underrepresented Minorities (Other URM). The other URM category includes Native Americans, Pacific Islanders and those of mixed race. We treat men as the reference category for gender and whites as the reference category for race/ ethnicity. We also control for year in program (first, second, third or more) under the assumption that first-year students may tend to be more idealistic than those closer to the labor market. Finally, we control for university

attended similar to adding university fixed-effects, masking the names of the universities as required by gradSERU confidentiality agreements.

Analyses

Cluster Analysis. K-means clustering[4] is an iterative algorithm that partitions the dataset into *K* distinct non-overlapping subgroups (clusters) where each data point belongs to only one group. It is designed to make the intra-cluster data points as similar as possible while keeping the clusters as different as possible from one another. It assigns data points to a cluster so that the sum of the squared distance between the data points and the cluster's centroid (the arithmetic mean of all the data points that belong to that cluster) is at the minimum. The less variation within clusters, the more similar the data points are within the cluster (MacQueen 1967).

To choose the optimal number of clusters, we followed Makles's (2012) procedures. We first performed 20 different clustering runs, each one from a different random starting point in the data array. Each of these runs produced 20 different solutions, with clusters as small as one and as large as 20, for a total of 400 solutions. With these 400 solutions as our analysis base, we

[4] As an alternative, we also employed Latent Class Analysis (LCA) to classify our items. While LCA similarly yielded four groups, group compositions were considerably different. LCA is a model-based approach which searches for "hidden" groups in the data as latent variables. By contrast, clustering is based on an entirely empirical, unsupervised algorithm. The choice between these two approaches depends on assumptions about the underlying structure of the data and the objectives of the study (see, e.g. Eshgi, Haughton, Legrand, Skaletsky and Woolford 2011). Since we used regression modeling in conjunction with principal components analysis in the paper, a model-based approach seemed less apt to us than an entirely unsupervised approach to classification. The optimal K-means solution also proved to be theoretically more interpretable than the LCA solution.

generated three test statistics to choose the optimal number and composition of clusters. These are within sum of squares (WSS), its logarithm, and the η^2 coefficient which is similar to R^2. After generating these measures, we used scree plots to identify the last value of *K* before the slope of the plot leveled off.[5] We found no consistently clear basis for choosing among four and five-cluster solutions. However, five-cluster solutions were less interpretable and less well aligned with our theoretical interests. We have therefore chosen to focus on four sizable, interpretable, and theoretically relevant clusters. Among the four-cluster solutions, we picked the one with the strongest test statistics.

We first interpret the defining characteristics of the four clusters. We then examine the field-level and socio-demographic distributions across the four clusters. This analysis allows us to compare the cluster results with the predictions of the neo-classical, divergence, and hybridization theses, as well as to account for the influence of control variables. Because each of the four clusters has conceptual integrity, we analyze the composition of the clusters using bivariate statistics rather than multinomial logistic regressions which would require the arbitrary designation of one of the clusters as a reference category.

Regression Analyses. In the regressions we first entered field dummies on the leadership/ management and ethics/community scales. We then entered the control variables as a second block. We entered the relevant component score in the third block. Thus, the form of the saturated regression model is as follows:

$$y_i = \beta_0 + \beta_1 F_i + \beta_2 C_i + \beta_3 RC_i + \varepsilon_i$$

[5] These diagnostic analyses are available on request.

where y_i represents the weighted component score for individual i; F_i represents the vector of field dummy variables; C_i represents the vector of control variables and RC_i represents the vector of the relevant other component score.

To provide additional evidence and a robustness check, we also run regressions on the individual items that composed the two scales. These regressions take the same form as regressions on the component scores, with variables entered in three blocks.

In supplemental analyses investigating the priorities of students preparing for academic professions, we conducted regression analyses on one survey question asking students to assess their level of satisfaction with their preparation for conducting independent research and one question asking students to assess their competence to teach an undergraduate course in their field.

RESULTS

Cluster Analysis

We present the results of the K-means cluster analysis in Table 3. As Table 3 shows, respondents tended to score higher on the ethics and community items than on the leadership and management items, a finding consistent with the neo-classical ideal. The sizes of the clusters are comparable, ranging between 27% to 24% of the sample.

The members of Cluster 1, which comprises 24% of the sample, stood out for their relatively high scores on both the leadership and management items and the ethics and community items. We label it "High L-M/High E-C" in Table 3, where L-M refers to leadership/management and E-C refers to ethics/community. The largest of the clusters, Cluster 2, included 27% of the respondents. It can be described as a cluster whose members tended to score lower on the leadership and management items and higher on the ethics and community

items than respondents in the sample as a whole. We label it "Low L-M/ High E-C." Cluster 3, comprising 24% of the sample, includes members who scored low on both the leadership and management items and the ethics and community items. We label it "Low L-M/Low E-C." Finally, Cluster 4, comprising 25% of the sample, is characterized by members who score somewhat higher on leadership and management items and somewhat lower on the ethics and community items than respondents in the sample as a whole.

These findings are consistent with the divergence thesis in so far as a majority of respondents were located in either the High L-M/Low E-C cluster or the Low L-M/High E-C cluster. By contrast, the High L-M/High E-C cluster, which would be predominant if the hybridization thesis described the central tendencies in the sample, encompassed a smaller proportion of respondents, slightly less than one-quarter of the total. The Low L-M/Low E-C cluster, another quarter of the sample, fit none of the three conceptions of professionalism we consider. As we will show below, it is composed primarily of students in the basic arts and sciences, most of whom are preparing for academic careers.

Table 3: K-Means Clustering Results

A. Total Sample

Variable	Observations	Mean Score	St. Dev.
1: Leading/Inspiring	4540	2.68	1.10
2: Taking Risks	4528	2.73	1.10
3: Prof. Contributions	4534	2.79	1.09
4: Collaborating w/ Others	4538	2.86	1.10
5: Supervising	4528	2.66	1.16
6:Completing Projects	4536	3.08	1.07
7: Advocating	4556	2.83	1.11
8: Difficult Conversations	4553	2.80	1.12
9: Moving to Shared Goals	4544	2.63	1.12
10: Integrity in Conduct	4578	3.54	1.01
11: Ethical Decisions	4570	3.54	1.01
12: Fair Treatment	4570	3.61	1.03

13: Respect Differences	4560	3.61	1.05
14: Cultural Recognition	4559	3.62	1.06
15: Promoting Community	4553	3.58	1.08

B. Four Clusters

Cluster 1: High/High (24%) **Cluster 2: Low/High (27%)**

Variable	Obs.	Mean	St. Dev.		Obs.	Mean	St. Dev.
1: Leading/Inspiring	1046	3.97	0.75		1183	2.48	0.79
2: Taking Risks	1046	3.99	0.73		1183	2.55	0.82
3: Prof. Contributions	1046	4.01	0.73		1183	2.66	0.83
4: Collaborating	1046	4.14	0.67		1183	2.71	0.82
5: Supervising	1046	3.98	0.79		1183	2.42	0.89
6: Completing Projects	1046	4.22	0.67		1183	3.13	0.84
7: Advocating	1046	4.09	0.68		1183	2.77	0.83
8: Difficult Conversations	1046	4.05	0.73		1183	2.75	0.86
9: Shared Goals	1046	3.91	0.79		1183	2.49	0.83
10: Integrity	1046	4.50	0.56		1183	4.02	0.66
11: Ethical Decisions	1046	4.51	0.56		1183	4.06	0.62
12: Fair Treatment	1046	4.57	0.55		1183	4.21	0.56
13: Respect Differences	1046	4.57	0.55		1183	4.26	0.54
14: Cultural Recognition	1046	4.55	0.57		1183	4.29	0.53
15: Promoting Community	1046	4.55	0.57		1183	4.26	0.58

Cluster 3: Low/Low (24%) **Cluster 4: High/Low (25%)**

Variable	Obs.	Mean	St. Dev.		Obs.	Mean	St. Dev.
1: Leading/Inspiring	1049	1.51	0.58		1100	2.76	0.65
2: Taking Risks	1049	1.56	0.59		1100	2.84	0.62
3: Prof. Contributions	1049	1.65	0.66		1100	2.85	0.64
4: Collaborating	1049	1.67	0.64		1100	2.94	0.62
5: Supervising	1049	1.49	0.59		1100	2.79	0.70
6: Completing Projects	1049	1.92	0.75		1100	3.04	0.60
7: Advocating	1049	1.61	0.64		1100	2.84	0.62
8: Difficult Conversations	1049	1.58	0.62		1100	2.78	0.66
9: Shared Goals	1049	1.44	0.56		1100	2.67	0.67
10: Integrity	1049	2.46	0.81		1100	3.12	0.53
11: Ethical Decisions	1049	2.45	0.80		1100	3.09	0.47
12: Fair Treatment	1049	2.49	0.84		1100	3.13	0.49
13: Respect Differences	1049	2.53	0.88		1100	3.05	0.53
14: Cultural Recognition	1049	2.54	0.92		1100	3.04	0.56
15: Promoting Community	1049	2.47	0.93		1100	2.99	0.55

Note: "High/High" denotes students who tended to score high on leadership/management items and high on ethics/community items. "High/Low" denotes students who tended to score high on leadership/management items and low on ethics/community items. "Low/High" denotes students who tended to score low on leadership/management items and high on ethics/community items. "Low/Low" denotes students who tended to score low on both sets of items.

In Table 4, we provide a representation of the distribution of fields across clusters. In some cases, students studying a given field were disproportionately represented in more than one cluster. Such findings indicate that students in these fields were divided in their dominant orientations.

We found statistically significant over-representations of students in business and law in the High L-M /High E-C cluster. We also found students in health professions and public policy to be over-represented in this cluster, although not by statistically significant margins. Here we find partial support for the hybridization thesis. We characterize the support as partial because most professional fields were *not* over-represented in this cluster. Instead, it was composed primarily of students preparing for the better-remunerated professional occupations.

We found significant over-representations of students in business, engineering, and agricultural/environmental sciences in the High L-M/Low E-C cluster. In addition, students in several other technical fields were over-represented in this cluster, although not by statistically significant margins. These fields included public policy, economics, and physical sciences. These findings are partially consistent with the divergence thesis. However, against the expectations of the divergence thesis, students in several technical professions, including computer science, medicine, and other health professions, were not over-represented in this cluster.

We found significant over-representation of students in medicine, health professions, arts and social work in the Low L-M/High E-C cluster. Students in nursing, life sciences, anthropology/sociology, psychology, history, and literature and languages were also over-represented in this cluster, although not by statistically significant margins. If we include these latter fields, this finding is largely supportive of the divergence thesis in so far as most of the fields in this category are associated with either cultural or human services fields. Students in medicine and life sciences are the exceptions.

We found over-representation of students in computer science, physical sciences, and history the Low L-M/Low E-C category. Students in mathematics/statistics, anthropology/ sociology, economics/political science, psychology, and literature and languages students were also over-represented in this cluster, although not by statistically significant margins. Computer science is the exceptional non-academic field in this cluster. Otherwise, the fields in this category are basic arts and sciences fields where professional development for research and teaching are, as we will show, high priorities.

Table 4: Fields and Demographic Categories Over-Represented in Four Clusters

High on Leadership/Management High on Ethics/Community (24%)	**High on Leadership/Management Low on Ethics/Community (25%)**
Business/Management***	Business/Management***
Law***	Engineering/Architecture***
	Agricultural/Environmental Science**
Upper-Middle/Upper Class*	Middle Class***
Middle Class**	
Men***	Men***
African-American***	Asian-American***
Asian-American**	

Low on Leadership/Management High on Ethics/Community (27%)	**Low on Leadership/Management Low on Ethics/Community (24%)**
Health Professions***	Computer Science**
Arts***	Physical Sciences**
Social Work*	History*
Anthropology/Sociology[t]	Psychology[t]
History[t]	
Working Class**	Low-Income/Poor**
	Working Class[t]
Women***	Women***
White***	Other URM***
	Hispanic/Latino*

[t] p < ,10; *p <.05; **p < .01; ***p < .001

The analysis also indicated differentiation by respondents' socio-demographic characteristics. Men were over-represented in the High L-M/High E-C and High L-M/Low E-C clusters, and women were over-represented in the Low L-M/High E-C and Low L-M/Low E-C clusters – in other words, men tended to be high in leadership-management and women low on this dimension. Students from low-income backgrounds were more likely to fall in the Low L-M/Low E-C cluster. If we assume that the dominant racial-ethnic group should score high on leadership and management, the findings on race-ethnicity must be considered counter-intuitive. African Americans and Asian Americans were over-represented in the High L-M/High E-C cluster, and Asian Americans were also over-represented in the High L-M/Low E-C cluster. By contrast, whites were over-represented only in the Low L-M/High E-C cluster.

Regressions

We present the results of regressions on the leadership/management scale in Table 5 and results of the regressions on the ethics/community scale in Table 6. We present the results of each in three blocks: first field-level findings only, and secondly field-level findings plus socio-demographic and academic controls. In the saturated model, ethics/community scores are introduced into regressions into the regressions on leadership/management and leadership/management scores are introduced into the regressions on ethics/community. We then report briefly on the regressions on individual items that make up the two scales.

Leadership/Management and Ethics/Community Scales. As the first columns on Tables 5 and 6 indicate, results for the field-level-only regressions provide limited support for the neo-classical thesis. Only students in fields with an explicit management or social control orientation (business, law, and, to a lesser extent, public policy) scored high on the leadership/management scale, while many more professional fields (medicine, law, business, education, nursing, social work, and arts) scored high on the ethics/community scale. In addition, aspiring academics in humanities and most social science fields scored high on this latter scale. The explanatory power of the models is, however, low for both outcome variables.

Table 5: Regressions on Leadership/Management

Variables	**Model 1 Coef.(SE)**		**Model 2 Coef.(SE)**		**Model 3 Coef.(SE)**
Fields					
Business	.397*** (.078)		.316*** (.080)		.266*** (.069)
Law	.418** (.161)		.164 (.164)		.124 (.135)
Medicine	.124 (.108)		-.093 (.113)		-.182[t] (.108)

Other Health Professions	,074 (.078)		.039 (.081)		.038 (.070)
Engineering	.102 (.076)		-.018 (.078)		-.041 (.066)
Computer Science	-.216** (.093)		-.276** (.096)		-082 (-2.64)
Public Policy	.161[t] (.091)		.127 (.093)		.119 (.810)
Nursing	.034 (.100)		.023 (.101)		-.076 (.090)
Journalism/Communications	-.059 (.148)		-.042 (.149)		-.022 (.127)
Education	.036 (.076)		.051 (.078)		-.035 (.068)
Social Work	-.153[t] (.088)		-.173 (.091)		-.293*** (.079)
Arts	.083 (.129)		.017 (.131)		-.128 (122)
Mathematics/Statistics	-.168 (.139)		-.267[t] (.141)		-.192 (.131)
Physical Sciences	-.158[t] (.090)		-.236** (.091)		-.183* (.078)
Life Sciences	-.158[t] (.073)		-.189* (.075)		-.210** (.065)
Environmental/Ag Sciences	REF		REF		REF
Economics/Political Science	-.239* (.106)		-.281* (.110)		-.311*** (.100)
Psychology	-.153[t] (.087(		-.154[t] (.089)		-.192* (.077)
Anthropology/Sociology	-.186[t] (.112)		-.200[t] (.115)		-.393*** (.100)
History	-300* (.126)		-.312* (130)		-338** (.113)
Languages/Literatures	-.203[t] (.104)		-.240* (.107)		-.326*** (.095)
Race-Ethnicity					
African-American			.110 (.079)		.075 (.066)
Asian American			.116* (.042)		.129*** (.037)
Hispanic			-.068 (.077)		-.038 (.067)
Other URM			-.039 (.112)		.025 (.090)
White			REF		REF
Gender					
Male			REF		REF

Female			-.119*** (.032)		-.100*** (.028)
Parents' Social Class					
Poor/Low-Income			-.074 (.066)		.026 (.056)
Working Class			.007 (.039)		.031 (.034)
Middle Class			REF		REF
Upper-Middle/Wealthy			.035 (.037)		.019 (.032)
Time in Program					
First Year			REF		REF
Second Year			.049 (.052)		-.029 (.045)
Third Year or More			.075 (.051)		.044 (.044)
University					
University A			REF		REF
University B			-.208*** (.064)		-.153 (.054)
University C			-.50 (.067)		-.066 (.056)
University D			-.312*** (.078)		-.022 (066)
University E			-.164* (.073)		-.167 (.061)
Ethics/Community Scale					.490*** (.013)
Constant	.008 (.060)		.205** (.099)		.243* (.084)
Observations	4,443		4,374		4,310
R^2	.032		.048		.281
[t] p<.10 * p<,05 **p<.01 ***p<.001					

As the second columns of Tables 5 and 6 indicate, the introduction of socio-demographic and academic controls improved model fit only very modestly, while decreasing the number of fields associated with both dependent variables, net of covariates. Business remained as the only field positively associated with leadership and management, net of covariates, and law, education, and social work remained as the only professional fields associated with ethics and community, net of covariates. Humanities and some social science fields also continued to be associated with ethics and community, net of covariates. The model suggests that some part of the effect of fields is mediated by the social characteristics of individuals studying the field. Asian-American students and men scored higher on the leadership/management scale and students from lower-income families tend to score lower on the ethics/community scale, net of covariates. These models provide little support for any of the three conceptualizations of professionalism under investigation.

Table 6: Regressions on Ethics/Community

Variables	**Model 1 Coef.(SE)**		**Model 2 Coef.(SE)**			**Model 3 Coef.(SE)**
Fields						
Business	.154* (.078)		.076 (.082)			-.077 (.071)
Law	.436** (.153)		.262^{t} (.156)			.119 (.132)
Medicine	.297** (.104)		.154 (.111)			.201^{t} (.107)
Other Health Professions	.198* (.082)		.122 (.085)			.111 (.075)
Engineering	.091 (.075)		.022 (.079)			.023 (.068)
Computer Science	-.085 (.097)		-.155 (.101)			-.002 (.088)
Public Policy	.052 (.091)		.005 (.092)			-.066 (.081)
Nursing	.202* (.101)		.152 (.103)			0.173^{t} (.091)

Journalism/Communications	0 (.152)		-.012 (.152)			-.001 (.131)
Education	.153* (.077)		.144[t] (.079)			.117[t] (.069)
Social Work	0.258** (.091)		.185* (.093)			.269*** (.084)
Arts	.359** (.117)		.285* (.120)			.273* (.112)
Mathematics/Statistics	.163 (.144)		-.185 (.144)			-.046 (.135)
Physical Sciences	-.137 (.091)		-.154[t] (.093)			-.021 (.080)
Life Sciences	.031 (.076)		.008 (.077)			.106 (.069)
Environmental/Ag Sciences	REF		REF			REF
Economics/Political Science	.088 (.111)		.065 (.116)			.179[t] (.102)
Psychology	.097 (.090)		.072 (.093)			.125 (.081)
Anthropology/Sociology	.313** (.107)		.314** (.109)			.439*** (.095)
History	.093 (.122)		.060 (.122)			.183[t] (.111)
Languages/Literatures	.182[t] (.108)		.130 (.111)			.264** (.101)
Race-Ethnicity						
African-American			.044 (.079)			-.002 (.068)
Asian American			-.027 (.041)			-.082* (.036)
Hispanic			-.063 (.074)			-.014 (.065)
Other URM			-.074 (.121)			-.098 (.101)
White			REF			REF
Gender						
Male			REF			REF
Female			-.023 (.032)			.031 (.029)
Parents' Social Class						
Poor/Low-Income			-.213** (.069)			-.168** (.059)
Working Class			-.042 (.038)			-.046 (.034)

Middle Class			REF			REF
Upper-Middle/Wealthy			.025 (.037)			.015 (.033)
Time in Program						
First Year			REF			REF
Second Year			.157** (.052)			.131** (.046)
Third Year or More			.066 (.053)			.026 (.044)
University						
University A			REF			REF
University B			-.144* (.062)			-.020 (.052)
University C			.018 (.066)			.049 (.055)
University D			-.203** (.078)			-.042 (.067)
University E			-.024 (.071)			.067 (.061)
Leadership/Management Scale						.498*** (.014)
Constant	-.109 t (.061)		-.031 (.100)			-.146t (.085)
Observations	4517		4446			4310
R^2	.015		.026			.263
t p<.10 * p<,.05 **p<.01 ***p<.001						

As the third columns of Tables 5 and 6 indicate, the introduction of the component scores increases model fit greatly for both dependent variables. These models explain more than one-quarter of the variance for both leadership/ management and ethics/community, and the effect of the component scores dwarfed the effects of all other variables in the model. Field-level effects

remained comparable to earlier results, with only business students scoring high on leadership/ management, net of covariates, and only social work students, together with students from most of the academic fields, scoring low, net of covariates. By contrast, students in medicine, nursing, education, social work, and arts scored high on the ethics/community scale, net of covariates, as did students in humanities and some social science academic fields. As before, Asian-American students and men scored high on leadership/management net of covariates, while students from low-income families, now joined by Asian American students, scored low on the ethics/community scale, net of covariates. The results provide limited support for the neo-classical thesis with respect to leadership/management and for the divergence thesis with respect to ethics/community, albeit with the proviso that students in at least one dominant professional field, medicine, also scored high on the ethics/community scale.

Individual Scale Items. As in the regressions on the two scale variables, regressions on items show that fields were only minimally differentiated and that the addition of student socio-demographic and academic background variables enhanced the explanatory power of the model only modestly. In every instance, component scores showed robust explanatory power, with contributions to R^2 invariably eight to ten times greater than other variables in the models. The ethics/community component scores showed the strongest net influence on leadership/management skills in project completion and conflict resolution. In each case, t-scores for the component were above 40, and the explained variance was one-third or more in the saturated models. The leadership/ management scores showed the strongest influence on items in the ethics/community set related to professional integrity and ethical and fair decision-making.

On these items, t-scores for the component were above .40 and explained variation near one-third.[6]

Research and Teaching Items. In our supplemental analysis, most applied professional fields scored low on both the research and teaching items, by statistically significant margins, while most arts and sciences fields scored comparatively high on teaching preparation and near the mean for research preparation. The constant term for research preparation was high, above 3.7 on the five-point scale, indicating that academic fields are perceived to be succeeding, by and large, in their primary mission to inculcate research skills. Women and students from low-income families scored lower on preparation for research, and women also scored lower than men on perceived competence for teaching. The introduction of the component scores into the regressions led to a sizable increase in R^2 for research preparation, driven primarily by the leadership/ management component, and a more moderate increase in teaching preparation, again driven primarily by the leadership/ management component.[7]

Discussion

We began this paper by presenting three conceptions of contemporary professionalism, which we termed the "neo-classical ideal," the "divergence thesis," and the "hybridization thesis." The results of the analyses provide a degree of support for all three, but, in our view, greater support for a revised version of the divergence thesis than for the other two.

[6] These regressions are available on request.

[7] These regressions are available on the journal's website.

Scores on ethics/community were quite a bit higher on average than scores on leadership/management, providing a degree of support for the neo-classical ideal. However, only one-quarter of students in the sample adhered to an outlook consistent with the neo-classical ideal, scoring low on leadership/management and high on ethics/community. Business-oriented and technical professionals were decidedly under-represented in this cluster. The hybridization thesis gained a similar level of support in the analyses. One-quarter of the respondents scored high on both leadership/management and ethics/community. The regressions reinforce the point that a sizeable proportion of students in this U.S. sample embrace both a positive orientation to leadership and management and to ethics and community. The hybridization thesis, however, fails to account for the centers of gravity among the larger numbers of students who do not score high on both leadership/management and ethics/community.

Support for a revised version of the divergence thesis is stronger; a majority of graduate professional students in the sample scored either high on leadership/management and low on ethics/community *or* low on leadership/management and high on ethics/community. Moreover, the distribution of fields in the High L-M/Low E-C and Low L-M/High E-C categories loosely parallels the expectations of the divergence thesis. Students preparing for technical professions like engineering and architecture tended to score relatively high on leadership/ management and relatively low on ethics/community. Conversely, students preparing for cultural and human services professions, such as arts and social work, tended to score high on ethics/community and low on leadership/management. At the same time, students in some technical fields, such as computer science, were not over-represented in the High L-M/Low E-C cluster, and students in some cultural fields, such as journalism, were not over-represented in the Low L-M/High E-C cluster. The divergence thesis also requires modification to take into account the propensity of

students in some high-status fields, notably business and law, to score high both on leadership/ management *and* ethics/community.

These findings can be synthesized: We find that the hybrid form of professionalism may be emergent as a dominant mentality among graduate students in professional programs. It has appeal among some students in all professional programs but its appeal is centered in the professional programs of business, law and to a lesser extent also in medicine, other health professions, and public policy. However, it remains a minority outlook within the stratum of aspiring professionals as a whole. Instead, students who score relatively high on leadership/ management and relatively low on ethics/community and students with the reverse profile together constitute a majority of the total. These students are distributed across professional fields, but their concentrations are distinctive in ways that tend to follow the predictions of the divergence thesis, with the notable exceptions described above. Finally, it is important to note that the three conceptions of professionalism we consider are not descriptive of students preparing for the academic professions. These students tended to score low on leadership/ management, and only those in humanities and social sciences tended to score high on ethics/community. Students in the basic arts and sciences fields scored higher on items measuring preparation for research and teaching than students preparing for applied professional occupations. Thus, while the conceptions of professionalism among aspiring academics tend to differ from those of students preparing for applied professional occupations, their experiences are closely related to their anticipated occupational activities.

Our analyses indicate that value positions that crosscut fields play a more important role as influences on students' assessments of their preparation for professional work than distinctive features of professional programs themselves. In the regressions, students who scored high on

leadership/management also tended to score high on ethics/community, net of covariates, while students who scored high on ethics/community also tended to score high on leadership/ management. These were by some measure the strongest net associations we found in the regression analyses.

A question that follows from this finding is why fields show limited net associations with our outcome measures while student value positions show comparatively strong net associations. Clearly one part of the answer is that while the desire for training in leadership and management does not always go together with an orientation toward ethics and community, the two do go together frequently enough to produce relatively strong net associations with one another.

The other part of the answer requires consideration of the variation in student interests and experiences within fields of study. Admissions-eligible students undoubtedly vary by the value orientations they bring with them to graduate and professional school. Some students in any field are interested primarily in gaining positions of power through the acquisition of professional credentials and contacts. Some are concerned, above all, with improving the lives of those to whom they provide services. Others may be intellectually inclined and oriented primarily to acquiring and employing expertise in their chosen occupations (see, e.g., Posselt 2016). As we have shown, these pre-existing differences are influenced, in a limited way, by the socio-demographic characteristics of students. In particular, gender plays an important role, disposing men toward a greater interest in leadership and management and women toward a greater interest in ethics and community.

Students with different interests and dispositions can find tracks within professional schools that suit them. Though most graduate professional students in the United States are required to take a common set of core courses, the courses in this common core typically occupy

either all or a portion of the first year program only. Students subsequently disperse into a variety of specialization areas. The specializations students pursue may attract those with very different orientations to professional life, as in the polar case of surgeons and pediatricians (Borges and Osman 2001), corporate and family law attorneys (Heinz and Laumann 1994), and technicians as opposed to advocates in public policy (Durning and Osuna 1994). Students also sort themselves into a variety of co-curricular activities in professional school where the contacts they make reinforce pre-existing or developing orientations to professional work. Aspiring engineers who spend co-curricular hours in community service activities building houses for the poor presumably differ significantly from those who spend their out-of-school hours interning on technical projects in large corporate enterprises.

The research reported here represents an important first foray into the comparative study of emphases in preparation for the professions in the United States. Given the influence of management priorities on professional work, it is entirely possible that professionals have accommodated to these priorities in their work settings even when they are not prepared for them or do not actively embrace them prior to employment (see, e.g. Exworthy and Halford 1999; Scott et al. 2000; Scott 2008). However, socialization experiences at school are also important. If these experiences are consistent with socialization experiences in work settings, the lessons of graduate education will reduce the need for intensive socialization in work organizations. If they are inconsistent, they can serve as a resource for resisting the priorities of management in so far as these priorities conflict with responsible professional practice.

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