Wages and Diversity: Evidence from Minority MBA Job Offers

by

Amalia R. Miller

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Author ..
....
Department of Economics
May 7, 1999

Certified by... xj
....
Scott Stern
Assistant Professor
Thesis Supervisor

Accepted by ....
....
Jonathan Gruber
Chairman, Undergraduate Thesis Committee
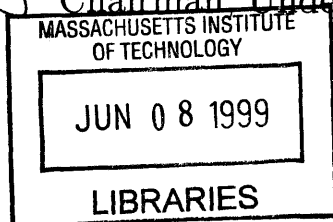
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Abstract

In this thesis, I develop a model for the economic impact of corporate ethnic diversity, and for the relationship between firm diversity and compensation offered to minority workers. I construct a sample of information from a survey of job offers made to graduating African-American MBAs that specifically exploits the presence of individuals with multiple job offers. Only by correcting for the quality of the candidate, can genuine inter-firm comparisons be made. Empirical testing of the data indicates a positive relationship between compensation and the career aspects of diversity (minority retention and promotion) and a negative one for the social, environmental components. This result suggests that diversity initiatives have heterogeneous impacts. While some policies are closely associated with providing worker utility (and thus appearing as a compensating differential), other policies (e.g., those which impact overall career paths) may be associated with increased productivity on the part of minority recruits.

Thesis Supervisor: Scott Stern
Title: Assistant Professor

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Chapter 1

Introduction

"Diversity" has attained the status of a buzzword of the 1990's. As such, it is used often and with a variety of intended meanings. Diversity can refer to the presence of actual differences or to a valuing of difference, where the heterogeneity can be in products, assets, or persons. When diversity is used to describe workforce characteristics, the differences can be in race, religion, ethnicity, gender, geographic origin, skill characteristics, and political views, among others. The focus of this thesis will be on racial and ethnic diversity, and on the specific relationship between corporate diversity and compensation packages offered to African-American new graduates of master of business administration (MBA) programs in the United States.

1.1 African-American MBAs

The labor market for African-American MBAs will be studied as a sample labor market, and the results regarding diversity initiatives here can be informative for considering such programs for other labor markets. This market is of further interest because the candidates are joining an elite vocational class. The managerial sector is one that enjoys high compensation and is one that is growing in numbers and in significance [15]. It is also a sector in which African-Americans, along with other minorities and women of all colors, are severely under-represented. Combined with low overall numbers, there is also a phenomenon known as the 'glass ceiling' where

the lower ranks of an organization are more diverse than its upper ranks due to a systematic barrier that blocks minority group members in their career advancement [23]. Changes in the racial composition of this class can have significant and lasting impact on the racialized distribution of wealth in this country.

One important characteristic of this labor market is that firms's hiring patterns differ in their degrees of racial integration, diversity initiatives and in their commitment to establishing and maintaining a racially diverse and multicultural workforce. These institutional differences can impact the work experience of the individual workers and lead to systematic differences in job market outcomes related to firm diversity. The first task of this paper will be to describe the effects of these differences on worker productivity and satisfaction. This foundation will enable us to separate out the effects of diversity, and to uncover the nature of the economic and social benefits. I will discuss how firms choose levels of investment in diversity, and suggest an explanation for the observed differences, with firms ranging from a basic fulfillment of legal requirements to well-developed and -funded diversity management initiatives.

Developing the economics of corporate diversity, understanding who benefits and how, is a project with important implications for firms, workers, and society at large. Compelling evidence linking diversity to corporate bottom lines is scarce, and new contributions can be influential. If increased diversity is in fact profit-enhancing, then we should expect a gradual increase in such initiatives across firms and over time. In the absence of economic motivations, firm diversity initiatives survive on the whims of management and are especially vulnerable to business downturns.

In order to study this market, job offer information was obtained from graduating African-American MBAs concerning both the pecuniary and work environment components of the offers. Particular use was made of data from candidates with multiple job offers in order to isolate the actual firm differences from candidate-specific ones. Two types of information were gathered (see Appendix B). The first, referred to here as cardinal, included responses concerning the absolute levels of compensation and diversity at firms, independent of other firms or offers (Part 3, Appendix B). The second, ordinal type, consists of rankings of offers received by candidates along various

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compensation, diversity and other characteristics (Part 4, Appendix B). The analysis yielded no significant diversity impact in the cardinal data. The ordinal set, however, contained two opposing effects of diversity on compensation. Overall firm commitment to diversity had a negative impact (firms with greater commitment offered lower compensation to minority recruits), but firm reputation for retaining and promoting minority employees led to an increase in total compensation offered. These results may indicate that diversity affects both the productivity and the utility of minority workers.

1.2   Structure of the Paper

In Chapter 2, I review the current literature on race in labor markets and present a conceptual framework from which to consider the impact of diversity. Chapter 3 contains the development of a theory and model of the specific relationship between the level of diversity at a given firm, and the amount of monetary compensation that the firm offers to a given African-American worker. The model is informed by general economic theory and by the economic, sociological and psychological papers reviewed, and separates diversity into its career-advancement component and its work environment-enhancement component. The two effects of diversity can have different impacts on compensation. The nature of these effects will suggest which party benefits 'directly' from diversity – the firm, from improved productivity, or the worker, from a more pleasant workplace. Of course, these effects are interconnected, and if one group gains, then both do. The model also includes predictions concerning the nature of competition in this specialized labor market. Chapter 4 reports on the construction of an initial sample of job offer information, that makes use of data from individuals with multiple job offers in order to correct for the unobserved ability variation. The results of empirical testing are in Chapter 5. Chapter 6 concludes.

Chapter 2

Literature Review

In order to study compensation and diversity in the labor market for African-American MBAs, we must first consider the general economic and social theories of race as a factor in the labor market, and the current status of minorities in management. Following years of public attention and legal action, women and minorities have made significant advances in the management profession. Between 1970 and 1988, the number of women, African-Americans and Hispanic Americans has quadrupled [7]. At the same time, there have been obstacles, and the upper ranks of corporate management remain nearly uniformly void of African-Americans. In 1988, only one African-American was the head of a Fortune 1000 company, and a Korn/Ferry International study of 1,708 senior executives surveyed in 1986 included only 4 African-Americans. This, and other data indicating the disparity in diversity between the top and bottom organizational rungs, is taken as evidence for the presence of a glass ceiling, which is "a barrier so subtle that it is transparent, yet so strong that it prevents women and minorities from moving up in the management hierarchy" [23].

The long history of racially differentiated outcomes, and more recent one of improvements and stagnation, present a theoretical challenge to the economist. Under the assumptions of efficient, functioning labor markets, directed by economically rational and informed agents with identical preferences, and with the basic assumption that race is not, in and of itself, a productive characteristic, we do not expect to see long-term differences across racial groups. The exact cause of the break-down

is important, as it will determine the appropriate policy response. It is also crucial background for the modeling of firm diversity as a relevant factor in labor outcomes. In this chapter, I will review some of the current literature, drawing from the following three strands:

- Discrimination Models

- Diversity Literature

- Theories of Race and Mentoring.

2.1 Discrimination Models

The unequal status of women and minorities in the labor market has been a topic of interest to economists, sociologists and social psychologists. While there have been theories of differential outcomes that rely solely on inherent differences in abilities or tastes of individuals, corresponding to their group membership; these will not be considered because of their apparent inapplicability here. To explain the differences, theorists have relied mainly on one, or some combination, of these factors: company stake-holders with tastes for discrimination, rational bias where managers discriminate based on perceptions of stake-holder tastes for discrimination, statistical biases and racially different returns to human capital investment, and systematic institutional barriers.

Early economic theories explained racial discrimination by the presence of racist preferences on the part of owners, managers, co-workers, or other relevant stake-holders at a firm [1, 5, 8]. Meant to describe wage differences between groups, they predicted segregation of employees by race instead. As well, discrimination in such a framework is purely inefficient and with functioning markets, capital would eventually flow to the least discriminatory and more profitable firms. In a world with at least one non-discriminatory firm, the long-run equilibrium would be characterized by equality. In a situation where a discriminatory firm has a monopoly in its product market, it is less susceptible to intense competitive pressures, and can survive. However, such

firms are always operating sub-optimally, and the forces of profit maximization may lead a shift towards reduced discrimination.

Within the context of these first models, a more diverse firm would be the result of stake-holders with lower tastes for discrimination (or none). In the case where diversity is unequally distributed across firms, and firms of varying levels make offers to the same minority candidates, we expect a non-negative relationship between diversity and minority compensation. In a perfectly competitive labor market, even when minority workers are employed at the less diverse firms, there will be no compensation effect. Instead, the less discriminatory firms will benefit from societal discrimination to pay the lower wages to minority workers.

The next set of models are based on the fact that ability is not distributed uniformly in a population and that it is often impossible to observe ability prior to hiring. According to these models the actual productivity of a worker is determined by a stochastic variable which is estimated by the hiring firm on the basis of an imperfect signal. Two results can be established. It can be shown mathematically that employers with (incorrect) racist beliefs about the distribution of ability in majority and minority populations will rationally discriminate. This can result in lower hiring or compensation rates for minorities. Second, Second, if firms are uniformly discriminatory, and individuals have a choice regarding human capital investments, it is possible to arrive at a stable racist equilibrium. The lower probability that minorities face of being fully-compensated for their investment leads to an incentive distortion and under-investment. The prior beliefs are thus self-perpetuating [9].

Another type of stochastic model even allows for equal prior beliefs on the part of employers about the ability distributions of workers across groups. Instead, rational discriminatory outcomes result from the signal being more noisy for a worker belonging to a different group from the employer. Given the reality that most managers are white, this will adversely affect non-whites. As long as there is a relative scarcity of positions (or higher paid positions), the result will be relatively more majority-type new hires or better compensated majority workers [13]. Both of these models include an appreciation for the role of history in determining levels of diversity at a firm.

However, they are better able to predict inequality in hiring, rather than promotion, and do not explain the long-term presence of a glass ceiling.

In all of these models, diversity differences between firms are explained by differences in the exogenously determined behaviors of employers. Compensation of African-American employees will either be positively related, or unrelated, to the level of diversity. The models are not robust to long-run differences between firms, since the presence of non-discriminatory firms will alter the equilibria above. Discrimination drives companies to inefficient actions, and is not a viable long-term option in the context of product market competitors who do not discriminate. A possible explanation for the observed variation in diversity, using a discrimination model, is that the observed situation is not an equilibrium one, and that frictions in the labor market and within institutions prevent the change from being instantaneous and cause firms to progress to equilibrium at different rates. These barriers may be strongest at the levels of the organization with the greatest power and compensation, making change uniformly slowest there. While discrimination models are a useful starting point for discussing race, they do not include a positive understanding of diversity and its benefits. Corporate diversity is simply the relative absence of discrimination. While it signifies a more profitable structure, it does not contain value itself.

2.2 Diversity Literature

Contrasting the understanding of "diversity as absence of discrimination" described above, is a literature aimed at presenting the positive value of diversity, referred to here as Diversity Literature. By this, I mean the growing body of work that addresses issues of workplace diversity, targeted either at organizations, their managers and leaders, or at minority job seekers and employees. There is advice offered to firms in the form of books, articles and consulting services. The advocates urge companies to go beyond the first generation of Affirmative Action, which focuses on numerical goals, superficial action, and has a crisis-management orientation, where compliance with government regulation or public relations are the primary concern. Instead,

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companies are encouraged to practice the next generation of Affirmative Action, and to create multicultural organizations that deliberately capitalize on their diversity [23].

The experts not only help firms meet their diversity goals and establish multiculturalism programs, but they can help in the articulation of these goals, and in presenting a business case for them. The economic arguments for diversity are vital. Of the fifty-three participating organizations in a 1995 study of the diversity initiatives and practices, a full 94% reported that justification was necessary for their initiatives [32]. The arguments must go beyond ethical and political beliefs, and diversity must be demonstrated to influence the firm's bottom line. There is currently no conclusive evidence that corporate diversity increases profits or productivity, as a general rule. However, there are some popular theories that explain why it should. They are, that diversity helps:

1. Attract and retain quality minority employees

2. Prevent tensions, improve communication

3. As a remedy against discrimination, which is itself inefficient [14].

The second category of diversity literature is advice to minority workers. These writings often report popular perceptions concerning the glass ceiling and racial discrimination, and provide important anecdotal evidence. It is clear that informal access to power and information is understood as a key to success that often eludes minorities. A Catalyst study of women of color in corporate management surveyed women regarding the perceived barriers to career advancement. The most common response was "not having a mentor", reported by 47% of respondents, followed by "a lack of informal networking with influential colleagues" reported by 40% [22]. Publications meant to offer career guidance for minority group members generally include an article about the importance of mentoring and advice on selecting a mentor and developing a useful relationship [12]. The claim is that a mentor will help workers "grow professionally and personally". This represents a popular conception about

the reason behind the glass ceiling. In the next section, the theory of mentoring will be explored along with its implications for firm diversity.

2.3 Minorities and Mentoring

In this section, I will discuss how the minority status of an individual can influence the extent of her organizational attainment. "Minority" is used here to indicate membership in any group that is a minority in terms of its numbers or its access to power within the organization. Relevant groupings often exist along the dimensions of race, sex, sexual orientation, and socioeconomic background. The impact of minority membership will be analyzed through a study of the informal relationships that develop between workers across levels at the firm.

These informal relationships are generally categorized as mentoring relationships where the higher-ranking participant is known as the mentor and person with less formal power in the organizational hierarchy is the protégé. Formal studies of mentoring indicate that both parties must profit from the relationship in order for it to be worthwhile to establish or maintain. The protégé gains from three areas – enhanced career development, psychosocial support, and role modeling based on identification. The mentor helps the protégé by grooming her for promotion, providing her with visible and challenging assignments, and access to the inner circles of power in the organization. The mentor benefits from peer recognition (for a successful protégé), personal fulfillment, and career rejuvenation [21].

The minority or majority status of each participant will mediate the extent of the benefits to the mentoring relationship. Both minority and majority workers hold stereotypes that minority group members have less power than non-minorities, even when they have the same rank and formal power in the organization. Because of this, minority mentors will be less able to provide career assistance to protégés than their white male counterparts. A study of compensation outcomes for MBA program graduates found a significant positive advantage to graduates who received mentoring from a white male above any other mentor demographic profile. Additionally, minori-

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ties (in race, gender) were less likely to form mentoring relationships with white males [16]. The extent of this disadvantage is moderated by firm-wide attitudes toward diversity, where the minority penalty should disappear as the workplace becomes more diverse [27].

While a white male mentor provides a vocational mentoring advantage to both majority and minority protégés, he is less capable of fulfilling the psychosocial and role model functions for his minority protégés. These benefits are greatest in the more homogeneous relationships [27]. Ibarra found that high-potential minorities tended to form both homogeneous (with other minorities) and diverse (with white men) developmental relationships, while non-high-potential minorities connected mostly with whites. The high-potential group was better able to obtain the mix of "survival skills and support systems that come from relationships with minority managers and the instrumental career support that comes with alliances with white managers" [18]. Firms with more diverse work-forces are more likely to have minority workers in upper levels, thereby providing entry-level minorities with better chances of forming beneficial same-race relationships.

2.4   Wages and Diversity

In this paper, I will construct a model and test for the presence of a wage effect of corporate diversity. The presence and nature of the relationship between worker compensation and firm diversity will contribute evidence for the economic impact of diversity. Using diversity and mentoring literature as a basis, I develop an understanding of the two primary positive components of diversity. Just as with mentoring, they are the career impact and the psychosocial, work environment difference. While discrimination is inefficient, it still a reality, and is present in a variety of subtle and blatant forms in many corporate settings. For this reason, the model will include discrimination as an underlying force that diminishes in more diverse environments.

This paper differs from the approaches above in its direct consideration of corporate diversity as a factor, and its empirical strategy for studying diversity. The

focus here is on differences within a minority group across firms, as opposed to across groups or within firms. The result of the testing can be direct evidence for the economic relevance of firm diversity.

Chapter 3

Theory and Model

In this section, I will present a model of the effects of diversity at a firm on the compensation paid to minorities. While the data and discussion focuses on the specific case of African-American MBAs, the model can be made general to any minority group. For example, a study of British employees found that vocational mentoring, but not personal mentoring, resulted in greater career success, as measured by promotions and salary increases [26]. This indicates, along with the theoretical grounding in the previous chapter, that is it relevant and useful to separate out the two general benefits to the protégé into those that affect his productivity and those that impact his job experience. While these effects are clearly interdependent, distinguishing between them will enable a more subtle understanding of the economics of diversity. Specifically, it positions us to respond to the questions of who (the worker or the employer) benefits from diversity and how these gains come about.

As I will explain below, the positive impact of diversity on the productivity of a minority worker will lead to a non-negative relationship between compensation and firm diversity. The psychological and social support gains from diversity will lead to an opposite relationship. I will then construct a simple and testable model to detect the presence of either effect and to uncover which of the two dominates in determining compensation. The observed slopes of the compensation-diversity curves will contain information about these two effects, as well as the market structure.

3.1 Diversity and Worker Performance

Based on the theories discussed in the previous chapter, we should expect that, correcting for ability, minority workers will be more productive at more diverse firms. This can occur for several reasons. There is a reality of discrimination at many companies. This discrimination is inefficient in that it under-values contribution from minorities and underutilizes their talents and skills. To the extent that diversity in numbers or attitudes means a reduction in discrimination, it will result in more productive African-American workers. Even beyond the extreme case of outright discrimination, there is are ways that institutional norms and standards that appear fair lead to the same under-appreciation and underutilization. Here, as well, a firm with greater diversity in the demographic characteristics of its upper management, and in its corporate culture (multicultural, open) will be better able to exploit the abilities of its African-American employees. Finally, an entry-level African-American worker will have greater access to a better quality of career mentoring in a more diverse organization. Diversity in culture will increase the openness of white male mentors to non-white protégés, and at the same time, it will reduce the career 'penalty' for having a non-white mentor. It will also decrease the importance of such obstacles as the heightened visibility and increased pressure and tension associated with mentoring relationships that involve minorities.

It is useful to note that these productivity effects will occur throughout the career path. There will be consistent improvements in performance and well as increased promotion possibilities that will allow for even greater gains. We should also recognize that the improved performance can itself lead to greater worker satisfaction. Symmetrically, the utility increase discussed below can be the cause of some improved productivity. In this paper, such second-order effects will be ignored, as I have elected to isolate these effects and consider only the first-order impact of each.

According to the textbook theory of competitive labor markets, individual workers are compensated according to their actual marginal productivity. This relationship is complicated by factors relating to the market structure and imperfections in the

available measurements of productivity. However, we can still expect to observe a generally positive relationship between the value of the marginal product of a worker and her compensation. To the extent that diversity is something that improves the productivity of minority workers, it should be non-negatively related to the compensation of minorities across firms.

3.2 Diversity and Worker Preference

In addition to the potential productivity advantage to diversity, there may also be a utility advantage. Racial discrimination, hostility and tension are unpleasant workplace characteristics for minority and majority workers and diversity may reduce the salience of these characteristics. Diversity also decreases the feelings of isolation and of tokenism that minorities often experience. Additionally, firm diversity improves the psychosocial and role modeling benefits to mentoring for minorities by providing a greater pool of potential mentors of their same type and indication that the firm is open to minority success.

We can model the worker's utility function as: $U = u(w, e)$, where w is wealth (income and other) and e is a measure of the quality of the work environment. Utility is increasing in both w and e, and the two factors are substitutes (ex: $U = w + e$). For the reasons mentioned above, an increase in diversity is equivalent to an increase in the value of e.

This situation can be compared to the generic case of a job with a "bad" characteristic that is discussed in the literature on compensating wage differentials. The labor contract is seen as a tied sale where the worker rents out her labor services to the firm and pays for the attributes of the job. The actual wage that the worker receives is the difference between these two terms [28]. The theory was expressed by Smith in his *Wealth of Nations* with the examples of pollution and risk of injury or death [29]. Empirical tests of the theory have yielded mixed results [17]. The hedonic analysis of the labor contracts predicts both the wage differential and a process of matching high cost employers with workers whose disutility from the negative characteristic are

lowest. The observed offer curve will have an upward slope (higher wages for worse environments), but this effect will be minimized by the worker matching.

In this case, the negative characteristic is the lack of diversity, and firms that are less diverse must pay higher wages to attract workers, thus making indifferent between the two environments. Since firms differ in their costs to increasing diversity and workers vary in their preferences for it, we can expect some matching to occur where the workers who suffer most (in terms of utility loss) from the lack of diversity work at the more diverse firms (firms with lower costs to achieving a given level of diversity). This will reduce the overall observed effect. However, the preferences effect is still predicted to yield a negative relationship between compensation and diversity.

3.3   The Importance of Market Structure

Our next step in constructing an integrated model for the compensation-diversity relationship is to consider the impact of market structure. The labor market for graduating masters of business administration can be modeled anywhere on the spectrum from perfectly competitive to perfectly monopolistic (reasonable not to consider monopsony). In this section, I will consider each of the two extreme cases, in turn, and then use that insight to generate predictions that take into consideration the actual structure.

A stylized representation of the previous results will be useful to our analysis. We can model the profit function of the firm as follows:

$$\pi = (\delta + \alpha \cdot DIV - c)L \tag{3.1}$$

where DIV is a measure of diversity and c is the monetary compensation paid to workers. $DIV \in [0,1]$ and $\alpha \in \{0,1\}$. $\alpha = 0$ represents no productivity effect. Additionally, we can model the individual's utility function as:

$$U = \lambda + \beta \cdot DIV + c \tag{3.2}$$

where $\beta \in 0, 1$, and $\beta = 0$ is the absence of a substitution effect.

First, I will consider the pefectly competitive case. Here, workers are identical, and they are paid the equivalent of their best outside option. The more productive firms (more diverse, if $\alpha = 1$) will not pay more than the less productive ones (no rent-sharing). Instead, the offers are made such that they offer equal levels of utilty and workers are indifferent between firms. Equations (3.1) and (3.2) yield that

$$c = \delta - \beta \cdot DIV \qquad (3.3)$$

where c is monetary compensation. If $\beta = 1$, the substitution effect will lead to a declining compensation-diversity curve, irrespective of the value of α.

In the case of worker-monopolists, where there is a scarcity of talented labor or where there exists a super-star phenomenon, workers are able to extract rents for themselves. The result is that workers are paid their full marginal product, and

$$c = \delta + \alpha \cdot DIV \qquad (3.4)$$

In this case, only the productivity effect is reflected in wages, and the relationship between compensation and diversity is positive or zero. See Table A.1 for a summary of these predictions.

The actual market structure is probably neither of these extremes but some intermediate situation. Therefore, the observed impact of diversity on compensation may reflect the presence and importance of both the productivity and preference effects.

3.4   A Testable Model

This section will present a model for the determination of employee compensation. A standard model of wage determination is

$$c = c(A_i, DIV_f, NDIV_f) \qquad (3.5)$$

where c is compensation, A_i is the ability of the individual worker, DIV_f are the diversity-related characteristics of the firm, and $NDIV_f$ and the firm's other attributes such as size, location, industry and product demand curve. In the analysis, both linear and log-linear models for compensation are employed.

The linear regression equation is of the form

$$c_{if} = \gamma_0 + \gamma_1 \cdot A_i + \gamma_2 \cdot DIV_f + \gamma_3 \cdot NDIV_f + \epsilon_{if} \tag{3.6}$$

The variables A_i, DIV_f and $NDIV_f$ represent vector quantities, with several distinct components. The estimates for γ_1, γ_2, and γ_3 may also be vectors, indicating the different magnitude and direction of the effects of the regressor components. Ideally, each of these components should be included separately in the regression.

Our model of diversity suggests that a relevant division of the DIV_f variable is between those aspects that relate to minority career advancement and productivity, and those that mainly impact the quality of the work environment for minorities. Thus, the estimate of γ_2 represents the combination of the variables α and β that were developed and defined in the preceding section. Formally,

$$\gamma_2 \cdot DIV = \alpha \cdot DIV_{vf} + \beta \cdot DIV_{ef} \tag{3.7}$$

DIV_{vf} is the vocational aspect of diversity and DIV_{ef} is the environmental one. Our theory predicts that the value of α be positive or zero, and that of β negative or zero, as α captures the performance effect and β captures the preferences effect.

3.5 Ability Bias

Clearly, worker ability influences individual labor productivity, and there should be an increasing relationship between A_i and compensation. In regression equation (3.6) above, if we just look at a cross-section of workers, then we expect a positive value for γ_1. While ability is important, it is impossible to perfectly observe, measure and include in the regression estimate. Firms hiring graduating MBAs rely on informa-

tion regarding ability from the candidate's resume, personal interviews, and sometimes past performance at the firm (as a previous full-time or summer employee). Economists lack access to this data, and are only able to construct a gross estimate for ability, using education and experience as proxies [17]. This limitation is particularly problematic for this dataset, which may contain large variation in ability but is almost uniform in the usual proxy measures.

The absence of an accurate measure of A_i in the regression will tend to bias the resulting estimates, if there is a correlation between the unobserved heterogeneity in ability and the independent variable for diversity. In a case where discrimination is a relevant factor in the labor market, we might expect a negative correlation between ability and diversity in the actual job offers. The less talented candidates may receive offers that over-represent the more diverse firms. The least diverse firms will only make offers to the most qualified candidates, resulting in a negative diversity-ability relationship. In an alternative scenario, where differences in diversity are due largely to firm history, the less diverse firms might be more keen to recruit minorities, due to decreasing returns to diversity, and extend more offers to lower ability workers. This would result in a positive correlation between firm diversity and worker ability. Either of these situations will bias the estimate of the diversity-compensation slope, with the former leading to a negative bias and the later to a positive one.

With the use of job offer information from individuals with multiple job offers, we are able to resolve this concern. This approach is similar to the use of datasets that chart groups of workers across time, in that it can account for inherent permanent worker differences. The additional benefit is that this approach captures a single snapshot of concurrent offers, positioning us better to correct for individual fixed-effects. The data is gathered in two forms, with cardinal and ordinal information, and separate strategies can be used for each. The cardinal data contains a reporting of the various components of each job offer, linked to the demographic information on the individual candidate. A regression can be run on data from individuals with multiple job offer that includes dummy variables for each individual. These dummies will absorb the full effect of ability differences and will correct for the bias. The

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ordinal data is in the form of ranking between firms along different dimensions of the jobs, and is limited to information from candidates with two or more offers. This data inherently corrects for the ability problem since the ranking is done by a given person (of a fixed ability A_i) who compares offers. It is the equivalent of having several individuals with identical characteristics at different jobs, and the offers themselves are tailored to the perceived ability of the candidate.

3.6   Variation in Firm Diversity

The productivity and substitution effects each lead to different predictions for the long-term equilibrium levels of diversity at firms. With a substitution effect alone, the long-term result can include heterogeneity among firms in their diversity levels. If there exists a productivity effect, where minorities are more productive at firms with more diversity, we should expect that less diverse firms will tend to increase their diversity or die out. The alternative of racial segregation of the labor market by firm is not likely to occur. The two factors that make workforce segregation inviable are legal restrictions on hiring practices and a scarcity of available worker talent, coupled with changing gross demographics of the United States workforce [19].

However, even with a large productivity effect, we can still expect to see short- and medium- run variations in firm diversity. The duration of the intermediate period will depend on the intensity of the market pressures, and the ability of firms to respond. Additionally, as long as the productivity effect is not felt in a direct and unambiguous manner, and firm's have only limited information regarding the true effects of diversity, firm levels of diversity will be set in a manner that reflects employer attitudes (political, ethical) to diversity as well as profit maximization. Thus, the current heterogeneity among firms is fully compatible with our model.

The characteristics that determine the current level of diversity at a firm relate to the firm's history, and it's potential gains and costs from changes in diversity. Firms with a past record of non-discriminatory behavior, and the hiring and retention of minority workers will have a clear advantage in their starting levels of diversity. They

may also enjoy lower costs to attracting more minorities and to creating a culture that values cultural differences. The reputation of a company is a crucial factor in increasing diversity, and companies will invest in advertising and targeted recruiting to influence this variable. Finally, institutional factors, such as employee attitudes, can affect costs. This study will exploit the current heterogeneity among firms to test for the actual impact of diversity.

Chapter 4

Data

4.1 Sampling

The data set for the empirical testing was created from responses to an original survey. The questionnaire was designed for this analysis and was targeted at graduating African-American masters of business administration. A listing of the survey questions is included in Appendix B. The questions solicited information regarding the respondent's demographic characteristics, general job search experience, and job offers received. The Sloan Career Development Office and Admissions Office were consulted in the survey design and its distribution. With the help of administrators and student leaders at the various U.S. ranked MBA programs, the minority populations were invited to participate. The survey was posted on an web-page, where respondents could complete the survey directly online, or request that a hard copy version be mailed to them. Participants were assured of anonymity and confidentiality of individual responses. They were also offered a final copy of the results and a gift certificate as incentives to participate.

The decision to format the questionnaire primarily as a web-based survey, rather than a paper-based mailed survey, was made after a consideration of the expected yields of each method. The web-version promised lower monetary and environmental costs by avoiding the printing copying, and mailing of questionnaires with return-postage envelopes. The setup time for designing and programming a simple web-

survey was comparable to the corresponding time for a paper-version. Further, I expected a higher response rate with an electronic survey. Respondents could immediately complete the questionnaire and submit the data upon receiving an invitation. It had also been suggested that the target group is already being bombarded with surveys from recruiting companies, and others, and that another questionnaire would be lost amid the rest.

While the web-version resulted in the benefit of lower costs, it also resulted in the drawback of a low rate of complete responses. Along with the partial reporting of particular offer, there is a phenomenon in the data of individuals reporting only some of the offers received. This is evident from discrepancies between the number of *Job Offer Records* completed by an individual, and the value that that person entered for the question *Number of Offers Received*. It was also common in the ranking section for individuals to rank their offers along the first few dimensions listed, and to ignore the later ones. I suspect that it is more tiring to complete a survey on a computer, particularly one that is lengthly and that involves some reading. These factors should be considered for future surveys.

4.2 Measures

In order to carry out the empirical analysis, I constructed measures for the variables relating the firm diversity, firm non-diversity characteristics, and the compensation offered. The ability and experience of a worker are also important factors in determining wages. The sample itself is restricted to individuals with similar educational attainments, but we should expect that there exists heterogeneity in individual ability within the sample. Ideally, this can be fully corrected for in both the cardinal and ordinal analyses.

The survey requested information on individuals and firms in two forms. The first solicited absolute information regarding each offer, and the information from that source will be referred to as the cardinal data. The wage information was provided in monetary terms, with respondents selecting the appropriate range (within either

$5,000 or $10,000) for their salary and bonus. The responses represent a range from below $35,000 to above $105,000 for base annual salaries, and annual bonuses from zero to over $60,000. The next set of questions asked about the racial and ethnic composition of the workforce at the firm making the offer. Respondents were asked if any of the individuals in these positions at the firm were African-American or members of other minority groups: firm owner, chief executive officer, member of top management, or member of the worker's potential team. Finally, they were asked to rate each company on a one-to-five scale (where 5 is high) along several diversity-related dimensions: its reputation for hiring and recruiting employees of color, its reputation for retaining employees of color, its reputation for promoting employees of color, and its overall commitment to workplace diversity.

Following the job offer information, candidates with two or more offers were asked to rank between their offers regarding specific job and firm characteristics. The dimensions included monetary compensation and benefits, overall firm reputation and job fit, perceived opportunities for internal and external advancement, as well as diversity-related questions about firm commitment to diversity and mentoring and reputation for retention and promotion of minorities. The firms were ranked in descending order, for each separate characteristic. The responses from this section were combined into the 'ordinal' dataset. Since the ordinal data lacks information regarding the industry of the firm, a mixed set was also created by adding dummies for the broad industry categories to the rank data. The offers reported in the ordinal dataset do not exactly match those reported in the cardinal one. This caused by the problem of incomplete responses, which may be related to the web-format of the questionnaire.

4.3   Respondents

A total of 81 individuals responded, representing 20 schools (Table A.2 contains a complete list). Because of the sampling technique, it is difficult to measure an accurate rate of response. 44% of the respondents were female, 23% unmarried,

and over 75% were under the age 25. Since some schools sent the invitation to all minority students, there were some responses from Hispanic and Asian Americans, but only those from African-Americans or Blacks are used in the analysis. They each submitted, on average, 20.9 job applications, and participated in 8 company interviews. Almost 88% had attended a company sponsored recruiting dinner, in the course of their job search, and 63% attended recruiting programs directed specifically at minority candidates. They received an average of about 2 offers (the range in this sample was from zero to seven offers), and 71% had accepted an offer at the time they completed the survey. Five of the six industry categories were represented in the offers, with the greatest concentration in financial services. Table A.7 presents the information, as reported in the cardinal and ordinal datasets.

4.4   Measuring Diversity

Developing a valid measure of the variable DIV_f, or firm diversity, is a subtle process. As mentioned above, the variable should be considered a vector, rather than a scalar quantity, as it contains various distinct components. There are both objective and subjective measures, and ones that are either past- or forward-looking. The main distinction that will be drawn here is between diversity components that relate to career advancement and productivity, and those that relate more directly to work environment and daily experience. Although there is often a high correlation between these measures of diversity, it is useful and important that they be separated and compared. The goal is to investigate the overall effect of corporate diversity on compensation, and any contributing effects resulting from the components of diversity.

A question regarding the presence of formal mentoring programs and one regarding the *Commitment to Mentoring* were included as measures for diversity. This is based on the concept that mentoring itself can help diversity. Since minorities are disadvantaged in terms of access to and quality of mentoring, a formal mentoring program is a concrete action that can enhance both career and personal elements of firm diversity [21]. Of course, this only holds for firms that are not currently fully

diverse, which is generally true for the firms in this sample.

The survey instrument gathers data on each of these aspects. In this sample, the simple pairwise correlations between cardinal measures of diversity are positive and as high as 0.79 (see Table A.5). This value can lead to a problem of multicollinearity between the regressors, and will lead to high standard errors. However, since they are not identical, and each of the measures may have a separate effect on the dependent variable, they should each be included in the regressions to avoid bias. Simple cross-tabulations on the occurrence of pairs of values in the ordinal data are summarized in Tables A.8 and A.9. Clustering of values along the diagonals indicates greater correlations. Here, as well, correlations are not perfect, and each of the measures is included in the regressions.

Using this survey, I was able to gather some of the important subjective impressionistic information regarding employee perceptions of the firms. While some objective information is solicited, further study should include more objective data, collected separately from the survey itself. Potential sources include publications directed at African-American or minority business-people, and a published ranking of companies in terms of their diversity levels. A search for such a list was conducted, yielding only a list of 10 companies [22], overlapping very little with the firms in the sample.

Further research should also include a survey of the companies themselves. A survey should be designed, targeted at the hiring companies, that solicits much of the same information as the current survey regarding workforce demographics, and the presence of minority employee groups and formal mentoring programs. Additionally, firms should be asked to list the concrete actions taken to recruit or to develop minority talent such as sponsoring minority recruitment dinners, attending minority career fairs, and advertising positions in minority magazines. The company should also rank the importance of diversity to its overall mission, and state what formal diversity initiatives are in place. They could also list any awards received in recognition of diversity efforts, and minority organizations that they have donated to or supported.

Chapter 5

Empirical Analysis

5.1 Regression Results

Two sets of regressions were run for this analysis, as the cardinal and ordinal information was considered separately. The cardinal data consists of reports of the absolute information concerning each offer separately, while the ordinal information is the rank that the candidate assigns to each offer along various dimensions, relative to the other offers received. The standard Ordinary Least Squares regressions were used, with a measure of compensation as the dependent variable. The factors used as independent variables included firm characteristics such as industry, size, and the various measure of diversity. Results from the regressions using cardinal data are summarized in Table A.10. Industry dummy variables were added to the ordinal data to create a mixed sample, and the results from regressions on those sets of data are reported in Table A.11.

5.2 Cardinal Data

Summaries of the descriptive statistics and pairwise correlations of variables in the cardinal dataset are in Tables A.4 and A.5. The simple correlations indicate negative relationships between the measures of diversity and the two measures of compensation. As well, the measures of diversity are positively correlated with one another.

While the correlations do not control for changes in other variables, the significance of the negative relationship between *Reputation for Hiring* and both salary and bonus is an indication of tradeoffs between some aspect of diversity and the compensation offer.

Regressions on the cardinal data did not provide much information regarding the impact of diversity. The small sample size made it impossible to correct for the heterogeneity of individual ability and to properly test the relationship of interest. Regressions that included dummy variables to account for the fixed effect of individual ability were conducted on the offers given to candidates who received two or more. Several variables were dropped and the only significant regressors were the individual dummies. This occurred even with the most limited specifications.

Tests were then conducted without the dummy variables, using each of the following as the dependent variable: salary, total compensation (Salary + Bonus), natural logarithm of salary, and natural logarithm of total compensation. The logarithmic regressions are based on an underlying model of multiplicative effects in wage determination that is commonly used in empirical labor economics. The set of independent variables was also varied to exclude industry dummies, size of firm, and each of the diversity measures.

The only consistently significant relationships were between industry and compensation. Offers in the financial services industry tended to yield the highest total compensation, while the consulting positions received highest starting base salaries. The difference between consulting and finance was not statistically significant in the wage difference, but was significant for total compensation (using an F-test). The offers reported in manufacturing were significantly lower in both compensation measures. Similar inter-industry salary differentials were reported in the placement survey of the Sloan class of 1998 [25]. My understanding is that these differences represent tradeoffs, in the tradition of compensating differentials, between compensation packages and job characteristics. There are gross industry differences regarding average weekly hours worked, career stability, pressure, and travel requirements. Compensation differences serve to equalize the average utility of the packages. Of course,

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candidates differ in their tastes and some matching does occur.

When a variable for *Number of Offers* was included, it had a significant (at the ten-percent level) negative effect on compensation. This variable is meant to pick up some of the quality differences between individuals, in the absence of a complete set of dummy variables. This may seem surprising, if we expect a positive correlation between ability and both number of offers and compensation. An explanation can be found in the nature of the job market. Many successful, and high-ability, candidates accept generous offers from their previous employers, and have only one offer to report. Others may receive attractive offers early enough in the recruiting process that they end their search with a low number of accumulated offers.

5.3   Ordinal Data

Cross-tabulations show positive relationships between compensation and the various measures of diversity, as well as between the diversity measures (Tables A.8 and A.9). These relationships are weaker than those observed in the cardinal data. Regression analysis allows us to separate out the diversity effects, and the results are more revealing with the ordinal data.

As indicated in Table A.11, significant relationships were found between compensation and three of the other measures. The degree of overall 'fit' that candidate felt towards the job and the firm had a significant positive effect on overall compensation (where ranking of benefits was averaged with the ranking on monetary compensation). This variable might be picking up on the unobserved productivity differences for a given individual across different positions, and it seems that most of the advantage is experienced in the form of benefits. The two significant diversity-related measures had opposite effects on the compensation variable. A better firm reputation for retention and promotion leads to higher compensation, while a greater overall commitment to diversity leads to lower compensation levels. For all of the variables in the regression, lower values represent higher levels of that characteristic, and the signs of the estimates can be interpreted as usual (the directions are the same).

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These results fit well with the theory developed here and its predictions. The regressions indicate that productivity and preference effects are both present ($\alpha > 0$ and $\beta > 0$) and relevant. They indicate, as well, that diversity itself can be usefully separated into these two components. The directions of the two effects accord with the model of this paper. The variable that measures firm *Reputation for Retention and Promotion* can reasonably be understood as an indicator of the career effects of diversity. A firm that ranks higher in this regard is one with better opportunities for minority employees to produce and will better exploit the talents of its African-American workers. The model predicted a positive relationship between compensation and diversity, in the case of productivity effects, and that effect is observed. The positive relationship also indicates some degree of worker monopoly in the labor market, where there is a scarcity of quality employees. This leads to some rent-sharing by employers, and workers are paid a reflection of their marginal product, rather than simply their best outside offer.

The negative relationship between overall diversity and compensation can also be understood through the model. The variable for *Commitment to Diversity* captures the intangible aspects of firm diversity not included in the other measures. Overall diversity, once retention and promotion have been accounted for, relates largely to the psychosocial and environmental aspects of diversity that make diverse workplaces more pleasant for African-American workers. Thus, correcting for the improved career prospects and productivity, diversity has a negative effect on compensation. This is evidence of a preferences effect, where diversity is a factor in the employee's utility function and a substitute for wages. It also indicates that the market is not a pure monopoly, and employers are able to pay workers less than their marginal products, as long as they maintain the same net level of utility. In this manner, firms offering a better environment can tend to offer lower compensation packages.

5.4 Mixed-Series

While the results from the ordinal analysis are interesting, there is a potential problem with them not including all of the firm information from the cardinal analysis. The dummy variables for industry were significant in determining compensation in the regressions on cardinal data. Their exclusion from the ordinal data could lead to bias, if the industries have different levels of diversity, and the measures of diversity are correlated with omitted industry variables. The next stage in the analysis was to construct a mixed sample with the ordinal data and industry information to test if the relationships described above continue to hold true. Beyond the removal of bias, the addition of further regressors to the equation will tend to make it more difficult to find significant relationships.

The results of the next set of regressions are included in the second two columns of Table A.11. In this case, the industry dummies were not significant, and did not alter the findings. Firm reputation for retention and promotion of minorities continues to have a positive effect on compensation, significant at the 1% level, and commitment to diversity remains significantly negative, at the 5% level.

5.5 Concerns

In this section, I will discuss the main data and statistical problems that compromise the results described above. The first is the possibility that the sample is biased and not fully representative of the job offers received by African-American MBAs. Individuals who chose to participate in the survey are a self-selecting group, who differ from those that didn't in that they either enjoy more, or mind less, the process of completing surveys, that they value the gift certificates more highly or that they are interested in contributing to and receiving the results of the study. There is no reason to expect any of these factors to be related to the dependent variable of compensation. Additionally, the range base salary offers is close to that of the general Sloan MBA population [25], suggesting that truncation is not a problem. However,

the sample is still somewhat small, and it is possible that large number assumptions are not yet valid. The significant relationships may be sample-specific, and could alter with a more representative sample.

The next issue to consider is the low explanatory power of the regression models. The Adjusted R^2 values run between -.0071 and .489, indicating that the best model used explained less than half of the variation in the dependent variable. While this alone does not compromise the results, it does force us to consider what relevant variables have been omitted from the regressions. Missing variables can lead to bias in the coefficient estimates when they are correlated with one of the regressors. The absence from the testing of measure for job location may be problematic for that reason. Location, either as geographic region, or as a measure of the population size of the area, contains variation in costs of living and may be related to compensation levels. It may or may not be related to levels of diversity. Further analysis should present evidence that diversity is independent of location, or include location measures as regressors.

The final concern that I will address is the reliability of the subjective reported data on firm diversity. While individuals can be trusted to report accurately on their own perceptions of a firm, these perceptions do not always correspond with the 'factual' truth. An argument can be made that it is, in fact, the subjective component that is relevant, but both should be considered fully in the empirical testing. In this sample, there are discrepancies in the reporting of diversity data between different individuals with offers from the same firms. Responses differ even to such objective questions as "Is there a formal mentoring program at this firm?" and "If yes, the program targets:". A possible solution to this problem is the implementation of a firm survey, as described in Chapter 4. In this study, the candidate-reported objective measures were not significant in the cardinal sample, and were not included in the ordinal one.

Chapter 6

Conclusions

This paper addresses the timely question of the economics of diversity through a consideration of the specific relationship between diversity and wages. Building on the literatures of labor market discrimination, mentoring, and diversity a model an integrated model of compensation is constructed. The vocational and personal effects of diversity are separated, and a link is formalize between corporate diversity and worker productivity and utilities. This leads to predictions for the directions of the wage-diversity relationships, that are also contingent on surrounding labor market structure.

Testing was implemented on a sample of job offer data collected from African-American graduating master's of business administration, using cardinal and ordinal reporting of the offers. The cardinal results described no significant diversity relationship. However, this may have been due primarily to the limited sample size. The ordinal data yielded significant results that corroborate the theory. Evidence was found for the both productivity and preference effects of diversity on compensation, with the former having a positive impact and the latter a negative one.

These results can be both descriptive and prescriptive. They indicate that diversity is currently a relevant factor in firm profits, and that a relationship between it and compensation exists. We also see that the labor market is neither perfectly competitive, nor a complete monopoly, and there is some amount of rent-sharing between firms and employees. In their prescriptive role, the results contribute new

evidence for the economics benefits to increased diversity. In this sample, there are dual benefits to diversity. The productivity effect leads to a direct improvement in worker productivity with increased diversity, and the preference effect can lead to lower wages paid to attract and retain quality minority workers. In determining the profit-maximizing levels of diversity, firms set the level such that the marginal benefit of increased diversity exactly balance the marginal cost. Two factors that may currently lead firms to invest inefficiently (from a purely economic standpoint) in diversity are short-sightedness and incomplete (uncertain or inaccurate) knowledge of the impact of diversity on profits. Research on the economics of diversity will correct the later. This thesis uncovers the directions of the effects. The next step is to determine the magnitude of these impacts.

Appendix A

Tables

Table A.1: The Impact of Market Stucture

Effect		Labor Market Competition	Labor Market Monopoly
Productivity Only	$\beta = 0$ $\alpha > 0$	$\delta w / \delta DIV = 0$	$\delta w / \delta DIV > 0$
Preferences Only	$\beta > 0$ $\alpha = 0$	$\delta w / \delta DIV < 0$	$\delta w / \delta DIV = 0$
Both	$\beta > 0$ $\alpha > 0$	$\delta w / \delta DIV < 0$	$\delta w / \delta DIV > 0$

Table A.2: Participating Schools

American University (Thunderbird)
Arizona State University
University of Arizona (Eller)
UC Berkeley (Haas)
Case Western Reserve University (Weatherhead)
Duke University (Fuqua)
Georgetown University
Harvard Business School
Indiana Unversity
Michigan State University
MIT (Sloan School)
New York University (Stern)
Northwestern Univeristy (Kellogg)
Ohio State University
University of Rochester (Simon)
Stanford
Vanderbilt University (Owen)
University of Pennsylvania (Wharton)

Table A.3: Means and Standard Deviations of Experience Variables

Variable	N	Mean	Std. Dev.	Min	Max
Female	80	.4375	.4992082	0	1
Married	81	.2345679	.4263685	0	1
US Citizen	81	.9012346	.3002057	0	1
Grad Year	81	1999.296	.4859127	1998	2000
Applications	81	20.92593	25.31737	0	140
Interviews	81	8.049383	6.246802	0	30
Months until Offer	81	2.604938	2.577203	0	18
Recruiting Dinner	80	.875	.3328055	0	1
Minority Dinner	79	.6329114	.4850909	0	1
Accepted an Offer	81	.7160494	.4537226	0	1
Number of Offers	81	1.950617	1.490816	0	7

Table A.4: Means and Standard Deviations of Cardinal Variables

Variable	N	Mean	Std. Dev.	Min	Max
Salary	124	78467.74	15036.24	35000	105000
Bonus	121	20289.26	16971.76	0	60000
Stock Option	133	0.2105263	0.4092238	0	1
Owner - Minority	113	.080	.272	0	1
Owner - Afr.-Am.	111	.054	.227	0	1
CEO - Minority	114	.061	.241	0	1
CEO - Afr.-Am.	111	.027	.163	0	1
Top Mangmt - Minority	111	.622	.487	0	1
Top Mangmt - Afr.-Am.	96	.458	.501	0	1
Team - Minority	100	.630	.485	0	1
Team - Afr.-Am.	89	.427	.497	0	1
Empl. Group	49	0.5918367	0.496587	0	1
Mentoring Prog.	133	0.3533835	0.4798278	0	1
Rep - Hiring	83	3.036145	1.243969	1	5
Rep - Retention	74	2.837838	1.227839	1	5
Commit to Div.	87	3.137931	1.26833	1	5

Table A.5: Pairwise Correlations of Cardinal Data

	Salary	Bonus	Diversity	Hiring	Ret/Prom
Salary	1.0000				
Bonus	$0.5890^{\ddagger}$	1.0000			
Diversity	-0.1389	-0.1733	1.0000		
Hiring	$-0.2153^{\dagger}$	$-0.2488^{\ddagger}$	$0.7779^{\ddagger}$	1.0000	
Ret/Prom	-0.0494	$-0.2382^{\dagger}$	$0.8138^{\ddagger}$	$0.7967^{\ddagger}$	1.0000

Note: * .1 significance, † .05 significance, ‡ .01 significance

Table A.6: Means and Standard Deviations of Ordinal Variables

Variable	N	Mean	Std. Dev.	Min	Max
Rank - Monetary	91	1.945055	0.9928929	1	5
Rank - Benefits	91	1.89011	0.9122688	1	5
Rank - Overall Rep.	91	1.978022	1.053861	1	5
Rank - Rep. Retention	75	1.96	1.005928	1	5
Rank - Mentoring	70	1.971429	1.006809	1	5
Rank - Diversity	72	2.069444	1.025401	1	5
Rank - Internal Adv.	76	2	1.032796	1	5
Rank - External Adv.	76	1.960526	1.025551	1	5
Rank - Fit	72	1.972222	0.9782454	1	5

Table A.7: Industry Categories Represented

Data Type		Industry	Number of Offers
Cardinal	1	Manufacturing	23
	2	Consulting	34
	3	Investment Banking	33
	3	Other Financial	13
	4	Government, Non-profit	0
	5	Entreprenurial	5
	6	Other	22
Ordinal	1	Manufacturing	12
	2	Consulting	27
	3	Investment Banking	21
	3	Other Financial	12
	4	Government, Non-profit	0
	5	Entreprenurial	7
	6	Other	11

Table A.8: Crosstabulations on Monetary Compensation Rankings

Monetary Compensation		1	2	3	4	5
Overall Firm Reputation	1	15	14	6		
	2	13	16	1	3	
	3	5	2	2		1
	4	1	3	3	1	1
	5				2	
Retention/Promotion	1	15	11	2	1	
	2	9	14	3	1	
	3	3	4	2	1	2
	4		1	1	2	
	5	1		1		
Commitment to Mentoring	1	14	9	3	1	1
	2	5	12	4	1	1
	3	4	5	2	2	
	4	1	3		1	
	5			1		
Commitment to Diversity	1	10	10	3	2	
	2	9	11	3	1	1
	3	5	5	3	2	1
	4		2	1	1	
	5	1		1		
Internal Advancement Opps	1	12	12	3	1	
	2	7	12	4	2	1
	3	7	3	2	1	
	4		2	2		1
	5				2	
External Advancement Opps	1	11	15	2	2	
	2	11	8	4	1	
	3	4	4	3	2	1
	4		2	2		
	5				1	1
Overall Fit	1	12	11	2	1	
	2	8	15	3		
	3	4	2	4	1	1
	4	1		1	2	1
	5				1	

Table A.9: Crosstabulations on Diversity Rankings

Commitment to Diversity		1	2	3	4	5
Retention/Promotion	1	19	4	1		
	2	2	16	2		
	3		2	9		
	4		1		3	
	5					2
Commitment to Mentoring	1	17	9	2		
	2	6	13	1	1	
	3	1	1	11		
	4		1	1	2	1
	5					1
Internal Advancement Opps	1	16	8	2		1
	2	6	15	3	1	
	3	3	1	7	1	1
	4		1	3	1	
	5			1	1	
External Advancement Opps	1	16	10	3		
	2	8	12	3		
	3	1	2	8	2	1
	4			1	2	1
	5		1	1		
Overall Fit	1	18	6	1		
	2	3	15	4	2	1
	3	3	2	7		
	4		1	3		1
	5				1	

Table A.10: Regression Results on Cardinal Data

	Ln(Salary)	Ln(Total)	Ln(Sal)	Ln(Tot)	Ln(Tot)	Ln(Tot)
Industry Vars Included	No	No	Yes	Yes	Yes	Yes
Size			-0.034	-0.0935	-.0386	-.0788
			0.063	.1342	.1342	.0899
Reputation - Hiring	-.0495	-.0745	-0.0256	-0.0427	-.0954	-.0481
	.0343	.0539	0.0304	0.0428	.0641	.0443
Reputation - Ret/Prom	.0281	-.0209	0.000447	-0.0156	.0249	-.0075
	.0378	.0596	0.0363	0.0513	.0752	.0518
Commitment to Diversity	.00334	.0399	0.0184	0.0406	.0332	.0234
	.03656	.0575	0.0324	0.0457	.0756	.0459
Mentoring Program					-.0341	
					.1214	
Top Mangmt - Afr-American					.1040	
					.1617	
Top Mangmt - Minority					.0697	
					.2047	
Team - Afr-American					-.0450	
					.1389	
Team - Minority					.0673	
					.1333	
Number of Offers						-.0442*
						.0263
Constant	11.352‡	11.674‡	11.536‡	12.22‡	11.615‡	11.840‡
	.0690	.112	0.316	0.445	.669	.4444
N	67	64	66	63	32	63
Adjusted R^2	-0.0071	0.0169	0.2636	0.425	0.1230	0.4414

Note: * .1 significance, † .05 significance, ‡ .01 significance

Table A.11: Regression Results on Ordinal and Mixed Data

	Monetary Compensation	Overall Compensation	Monetary Compensation	Overall Compensation
Industry Vars Included	No	No	Yes	Yes
Reputation - Overall	0.053	-0.030	0.057	-0.024
	0.185	*0.133*	*0.185*	*0.133*
Reputation - Ret/Promotion	0.678‡	0.562‡	0.726‡	0.596‡
	0.248	*0.179*	*0.251*	*0.181*
Commitment to Mentoring	-0.045	0.055	-0.056	0.048
	0.192	*0.138*	*0.191*	*0.138*
Commitment to Diversity	$-0.735^\dagger$	$-0.489^\dagger$	$-0.792^\dagger$	$-0.534^\dagger$
	0.296	*0.213*	*0.298*	*0.215*
Opps for Internal Adv	0.192	0.095	0.170	0.085
	0.178	*0.129*	*0.182*	*0.131*
Opps for External Adv	0.139	-0.005	0.105	-0.025
	0.166	*0.120*	*0.170*	*0.123*
Overall Degree of 'Fit'	0.326	0.547‡	0.291	0.519‡
	0.228	*0.165*	*0.230*	*0.166*
Constant	0.829†	0.536†	1.591‡	1.098‡
	0.314	*0.226*	*0.557*	*0.401*
N	57	57	57	57
Adjusted R^2	0.261	0.484	0.266	0.489

Note: * .1 significance, † .05 significance, ‡ .01 significance

Appendix B

Survey Questionnaire

Minority MBA Job Market Study

Instructions

In completing the following survey, please respond to as many questions as possible, bearing in mind that the results are confidential and anonymous and that you may decline to answer any question without prejudice. If you have any questions regarding the survey, please feel free to contact Amalia Miller or Professor Scott Stern.

Part 1: BACKGROUND

- Sex:

- Age:

- Marital Status:

- Citizenship:

- Ethnicity:

- Current Institution:

- Expected Graduation Date:

- Undergraduate Degree:

Part 2: JOB MARKET EXPERIENCE

- When did you begin your current job search?

- Number of jobs for which you have formally applied (by submitting a resume, application):

- Number of organizations with which you have interviewed:

- Length of time between start of your job search and receipt of first offer:

- Did you attend any company sponsored dinners or informational sessions?

- Did you attend any targeted at under-represented minority group members?

- Number of offers which you have received:

- Have you already accepted a job offer?

- If yes, which offer did you accept?

Part 3: JOB OFFER RECORDS

- Name of Organization:

- Industry:

- Department/Division:

- Job Title:

- Location:

- Size of the firm:

- What was the primary source of your contact with this company?

- Starting Base Salary:

- Bonus (signing, relocation, year-end, guaranteed):

- Stock option plan?

- If yes, describe:

- Is there an African American or Minority Employee group at this company?

- Is there a formal mentoring program at this firm?

- If yes, the program targets:

- Please complete the table below.

Which of the following individuals are members of U.S. underrepresented minority groups? are African American or Black?

	Minority Group Member	African American/Black
Company Owner		
CEO of equivalent		
Any Member of Top Management		
Any Member of the team that you will work with		

- Please rate the firm along the following dimensions, on a scale from 1-5, where 1 is LOW and 5 is HIGH.

  Reputation for recruiting and hiring people of color:

  Reputation for retaining employees of color:

  Reputation for promoting employees of color:

  Commitment to workplace diversity:

- Health-care insurance?

- Other benefits (please list):

Part 4: JOB OFFER COMPARISON

The following two tables ask you to compare among your current job offers along 9 dimensions. In the first column, please type the company names. Then, in each column, order the offers in terms of which most satisfies the column heading. In the example below, the candidate ranks between three job offers: from Startup.com, AskUs Consulting, and BigBank USA.

Job Offer Comparison *Example*

Organization Name	Overall Monetary Compensation	Overall Benefits	Overall Firm Reputation	Successes at Retaining, Promoting Minorities
Startup.com	1	3	1	3
AskUs Consulting	3	2	2	1
BigBank USA	2	1	3	2

Job Offer Comparison *Table 1*

Organization Name	Overall Monetary Compensation	Overall Benefits	Overall Firm Reputation	Successes at Retaining, Promoting Minorities

Job Offer Comparison *Table 2*

Organization Name	Commitment to Mentoring	Commitment to Diversity	Opportunity for Internal Promotion	Opportunity for Future Mobility	Overall 'Fit'

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