The Importance of Being an Optimist: Evidence from Labor Markets *

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Abstract

Dispositional optimism is a personality trait associated with individuals who believe, either rightly or wrongly, that in general good things tend to happen to them more often than bad things. Using a novel longitudinal data set that tracks the job search performance of MBA students, we show that dispositional optimists experience significantly better job search outcomes than pessimists with similar skills. During the job search process, they spend less effort searching and are offered jobs more quickly. They are choosier and are more likely to be promoted than others. Optimists are more charismatic, but this does not explain the findings.

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There is growing evidence that personality traits shape economic behavior. For example, Schoar (2007) shows that CEOs who start their managerial careers during recessions have more conservative management styles than those who do not. Graham and Li (2009) find that about half of the variation in CEO compensation is attributable to CEO fixed effects. Similarly, labor economists have recently considered how a wide range of personality traits, many shaped in early childhood, affect earnings and other labor market outcomes.[1] These distinct strands of research share a common thread, which is the connection between relatively time-invariant, person-specific fixed-effects, and a range of economic choices that work primarily through labor market participation channels.[2]

In this paper, we focus on optimism as a personality trait, and explore how it affects labor market outcomes. We conduct a multi-year, multi-phase survey of students in the daytime MBA program at a major midatlantic university. We measure dispositional optimism when students first arrive in the MBA program and then observe job search behavior during the MBA, including summer internship job search activity as well as job search activity that pertains to the job students receive upon graduation. These surveys are matched to admissions records and data on classroom performance to obtain a robust picture of the investment in human capital that occurs during the MBA experience. Finally, we follow up with alumni two years after they graduate to learn about their post-MBA job market experience.

We focus on optimism because it is so central to economic choice under uncertainty. Virtually anyone faced with a choice today that yields uncertain payoffs in the future must make subjective assessments of the likelihood of different future states of nature. An optimist places more weight on favorable states of nature when making these decisions than a pessimist does. This optimism may pertain to a narrowly framed task or event,

[1] See Heckman, Stixrud, and Urzua, 2006, or Cunha, Heckman, Lochner, Masterov, 2005.

[2] See Puri and Robinson (2007), however, on the link between optimism and economic outcomes that work outside this channel.

or it may simply be the broad, general belief that good things tend to happen more often than bad. This latter conception of optimism, *dispositional optimism*, has been studied extensively by personality researchers. They have found that dispositional optimism is a stable personality trait that predicts a wide range of long-horizon health behaviors and outcomes.[3] Importantly, because these expectations are measured in absolute terms, rather than relative to outcomes, they may or may not reflect rational beliefs about the likelihood of various states of nature.

Dispositional optimism is a natural psychological construct to analyze in the context of the skill acquisition that occurs during an MBA. After all, the MBA involves an expensive, time-consuming investment with uncertain payoffs that accrue slowly over time as one's career unfolds.[4] Undertaking the MBA requires a broad set of beliefs about one's vocational future and how it will change as a result of the investment, and in turn, how this will impact overall utility. At the same time, students receive frequent feedback, and have ample opportunities to adjust their time allocation and investment in light of changes in their future expectations.

Thus, it is far from obvious how optimism *should* affect economic choices and outcomes. Standard economic arguments predict that optimism leads to bad outcomes, because inappropriate probability weights placed on future states of nature cause individuals to misallocate resources. In contrast, there are a number of reasons why optimists

[3]See Danner, Snowdon, and Friesen (2001) or Friedman, Weinberg, Webb, Cooper and Bruce (1995) for a particularly stark examples of the long-lasting benefits of dispositional optimism. Holding distorted beliefs about the likelihood of a *particular* future event is distinct from possessing a personality trait known as optimism. Weinstein (1980), Weinstein and Klein (1996), and The College Board (1976-1977), Kruger and Dunning (1999), Moore and Small (2007) and Burson, Larrick and Klayman (2006) all explore the tendency to misjudge the probability of specific future events. Peterson (2000), Scheier and Carver (1985), Seligman and Csikzentmihalyi (2000) focus on optimism as a personality trait that may or may not be correlated with positive illusion about a specific future event. Taylor and Brown (1988) point out that positive illusion, optimism, and the illusion of control are all traits possessed by mentally healthy individuals.

[4]Indeed, perhaps this is why MBA students have provided such a fruitful empirical laboratory for studying human behavior. See Oyer (2008), Kuhnen (2009a, 2009b) and Sapienza, Maestripieri and Zingales (2009) for recent work on MBA students.

might make better choices and experience better outcomes.[5] They might be optimistic because they are aware of latent skills or talents—their optimism might be rational given their private information. Or if optimism is the belief that everything will turn out okay no matter what happens, then it might empower those who possess the trait to persevere in the face of initial adversity. Alternatively, the sense of well-being that stems from a deeply held conviction that the future will turn out favorably might allow them to adapt more effectively to changes in the environment, or internalize negative feedback more effectively.[6]

Our survey methodology allows us to explore these competing hypotheses in the context of labor market behavior. The findings are easy to summarize: optimists outperform their peers in the job market. They search less intensively than their peers but receive job offers more quickly. Moreover, they are more likely to be promoted in the first two years after graduation.

So why do optimists outperform others? There are at least two plausible explanations that do not rely on optimism as a judgment-related personality trait. One argument is that optimism arises endogenously, and is borne out through self-fulfilling behaviors. Thus, individuals who are, say, good looking, articulate, or more personable are more optimistic because they have learned to rationally anticipate favorable outcomes when they interact with others around them. Good things happen to these people, making them optimistic, which in turn perpetuates good things occurring, but the optimism *per se* does not cause the good things in life to occur.

To test this explanation we built a "beauty contest" into our survey. Near the end of the two-year MBA program, students were asked to choose from among their sectionmates the five most charismatic people, the five most likely to be CEO, and the five

[5]The evidence in medical psychology on costs and benefits of optimism is also mixed. See works cited.

[6]Recent work by Carver, Scheier, and others points to coping as an important psychological process implicated in optimism. See Rasmussen, Carver and Scheier (2006), Segerstrom, Taylor, Kemeny and Fahey (1998), or Scheier, Weintraub and Carver (1986).

most optimistic.[7] If dispositional optimism were simply capturing interpersonal charm, we would expect to see the ex ante optimism measurements cease to explain job search outcomes when we controlled for charisma. Instead, what we find is that optimism continues to explain outcomes even when we control for these outward measures.

A second alternative for why optimists outperform others is that unobserved skill, or talent, is driving our results. There is little support for the assertion that optimism captures unmeasured skill or luck. Dispositional optimism is unrelated to standardized test scores such as the GMAT (verbal, quantitative, or total) as well as demographic traits that are correlated with past success. (Indeed, Satterfield, Monahan and Seligman (1997) shows that dispositional optimism is *negatively* related to performance in law school.)

Moreover, there is indeed evidence that, at least in the short run, optimists are prone to hold distorted, inaccurate beliefs. In particular, we find that optimists think that they will get coveted jobs with a higher probability than others. They do not; optimists are no more likely to get a job with a preferred employer than anyone else. They also falsely believe that they will earn more than their peers. These results stack up against stories that hinge on optimism working through private information.

These findings add to a rapidly growing body of work in economics and finance that links behavioral biases to economic outcomes. Unlike our work, however, most prior work stresses that miscalibrated beliefs about uncertain future outcomes are necessarily bad. Odean (1998) and Barber and Odean (2000) demonstrate that biases in decision-making cause investors to earn poorer returns than they would in the absence of the bias. Moskowitz and Vissing-Jorgensen (2002) show that entrepreneurs earn lower risk-adjusted returns than non-entrepreneurs, pointing to excessive optimism about future prospects as one possible explanation. Indeed, this view comports with that put forward

[7] In the MBA program we studied, the class is divided into six sections of approximately sixty students. The survey asked students for their rankings of their section-mates, not those outside their section.

by Coelho, De Meza, and Reyniers (2004), Camerer and Lovallo (1999) and others linking entrepreneurship to excessively optimistic views of one's own future performance.

Our work illustrates a brighter side to optimism, even if it is associated with distorted beliefs. Since our findings reflect individual personality differences, our work is related to recent work by Malmendier and Tate (2005, 2008) linking CEO overconfidence to managerial decision-making; to Jenter (2005), who shows that managers' misperceptions about firm value are an important determinant of managers' decision making; and to Bertrand and Schoar (2003), who demonstrate person-specific managerial style differences. Graham, Harvey and Puri (2009) survey CEOs and find that they are generally quite optimistic, more optimistic than the CFOs who operate in the same firms. In some sense, we study the same basic population (many of our respondents aspire to and will become corporate managers) at an earlier point in their careers (i.e., when they are earning their MBA), and illustrate the fact that individual personality differences affect decision-making along the road to becoming managers.

The paper proceeds as follows. In Section 1 we describe the student survey and the related archival data that allow us to study optimism and labor market outcomes. Section 2 explores the demographics of optimism, and considers how optimism might be related to charisma and other measures of socialability. We consider how optimism relates to job search behavior in Section 3, while in Section 4, we consider how optimism to job search outcomes. To see how optimism relates to performance on the job, we report the key findings from a 2009 follow-up survey of 2007 graduates in Section 5. Section 7 concludes.

1 Data

The key data source behind our study is an eight-wave online survey of daytime MBA students at a midatlantic university that we conducted between August 2005 and May

2007. Like most daytime MBA programs at US schools, this program is a two-year program in which the summer after the first year of classes is typically spent in one or more paid internships with potential future employers. The internship is a valuable opportunity not only for students to learn how well they match to particular employers, industries, and job functions, but also for employers to learn whether the student in question merits a job offer. Some students return from the summer internship with a job offer from their summer employer, and many of these students accept that job. Others continue searching in the second year for a full time job offer which typically begins in the summer after graduation.

The survey procedure works as follows. Students complete four online surveys during each school year. The first is conducted during the orientation period, prior to the beginning of classes, and consists of the Life Orientation Test - Revised (LOT-R), a measure of generalized expectations that is the most common instrument for assessing dispositional optimism (Scheier et al., 1985; Scheier et al., 1994). This tool consists of 10 items such as, In uncertain times, I tend to expect the best, each of which the participants rate on a scale ranging from "strongly disagree" to "strongly agree." Setting aside the four filler items, there are 6 items, each with a 5-point scale, so the theoretical range is 6-30. The full text of the LOT-R, including the filler questions, is included as Appendix Appendix A..

Subsequent surveys consist of 10-15 questions about expectations for future academic performance, as well as their preferences and expectations in their career search. For example, we ask a variety of questions about job market expectations, as well as about the relative importance of various dimensions of the MBA experience. In particular, students are asked to rank on a scale of 1 to 3 the following three dimensions of the program: the importance of friends made in the program, the importance of getting a good job, and the importance of grades.

The fifth round of the survey is conducted at the beginning of the second year of the program, and included retrospective questions about the quality of their experience with their summer employer(s) (including whether they received a job offer from a summer internship) along with standard job market expectations. The remaining rounds were conducted in the spring of the final year and included retrospective questions about the overall quality of their experience as well as their recollections of time allocations across job search tasks and school work.

Students who complete a survey receive a $5 gift card to a national coffee chain, as well as entry into a drawing for a $100 gift certificate to a local restaurant. To create incentives for thoughtful predictions, we enter participants into a lottery for a $1,000 gift certificate based on their predictions, where the likelihood of winning is set proportional to the ex post accuracy of their prediction. Using archival data, we compute actual GPAs and deciles for each student in each term. We then compare these archival data with the survey responses to assess the accuracy of participants expectations.

A total of 232 first-year M.B.A. students (a 53% response rate) participated in the first year of the study. Table 1 illustrates the fact that participant demographics closely match the student population. There were some important differences, however. Survey participants were generally younger, more likely to be US citizens, more likely to be white and less likely to be Asian. They earned more in their prior jobs and had better grades and GMAT scores.[8]

Table 1 about here

To create incentives for participation, a second $1,000 gift certificate is raffled to those who completed all eight waves of the survey. Of the 232 respondents who completed all four waves of the first survey, approximately 180 returned to the survey for the second

[8]To verify that underlying demographic differences between the subject pool and the student population are not responsible for our findings, we have repeated our analysis on only the students who participated in the first four rounds of the survey. This has no effect on our findings.

year of the survey. Their demographic characteristics closely match those of the first year survey sample.

A third section of data was created by matching the student's survey responses to archival data from the admissions office and the career management center. Admissions data gives us background demographic characteristics, as well as GMAT scores. The data from the career management center track the receipt and acceptance of job offers. In addition, the career management center maintains a bidding system for interview slots; this allows us to tabulate the number of bids that each student places as a measure of search intensity.

2 Explaining Dispositional Optimism

Before exploring the role that dispositional optimism plays in affecting labor market outcomes, we first investigate the socio-demographic determinants of optimism. Table 2 reports this analysis.

Column (1) of Table 2 simply regresses the LOT-R score on a vector of demographic and admissions controls. Males are more optimistic than females. Students who come in from more lucrative prior jobs are significantly less optimistic, but this effect may be attributable to their prior industry. There is little variation along other dimensions.

One important possibility is that the LOT-R simply measures likeability or social grace. In other words, respondents who favor questions like "In general, good things tend to happen to me more than bad" could feel that way because they are naturally charming people who are used to good things happening to them. This would yield substantially different interpretations for our findings than than those focused on the psychological processes distinguishing optimists from others.

To control for this possibility, we conducted a form of a beauty contest near the end of the MBA. In particular, at the end of the second year, students were asked to rate the five people from their incoming section who were the most charismatic, the most likely to one day become CEO, and the most optimistic. By tallying up the votes that each person receives, we constructed measures that are labeled Charisma, Future CEO, and Outward optimism in Table 2. These appear in the remaining columns.[9]

Column (2) shows that LOT-R loads reliably on charisma, though the effect size is modest. The median survey respondent received 1 vote from their section mates; the mean number of votes was 2.67 and the standard deviation was around 4.5. This means that a two-standard-deviation shift in charisma raises the LOT-R by about one unit (i.e., going from agree to strongly agree on a single question).

The remaining columns illustrate that that outward optimism is positively related to the LOT-R, but that in general, the other measures from the beauty contest are driven out by charisma. Individuals who enter the MBA with high dispositional optimism scores are indeed perceived to be more charismatic by their peers. Because of this, we will introduce these variables as controls when we explore outcomes that occur after the MBA (i.e., after the charisma-related variables were obtained), and in robustness checks we include these along with the LOT-R in Table 9.

3 Job Search Beliefs and Behaviors

Our first link between optimism and labor market outcomes is in the relation between optimism and the job search experience of MBA students. We investigate this in two ways. First, we relate optimism to personal beliefs about the job importance. Since the MBA experience is, at some level, a complex job search and matching process, this helps

[9] A table of raw correlations between the LOT-R and the beauty contest variables is reported in Appendix Appendix A..

us understand how optimism relates to the perceived expected payoffs of additional job search activity. Next, we relate optimism to actual search behavior by measuring the number of bids that students place in the on-line bidding system, as well as the number of companies they contacted at various points during the job search process. These tests all point in the same direction; namely, that optimists engage less intensively in search.

3.1 The Importance of a Job

One of the questions we asked students was how they ranked three facets of the MBA experience: the friends they make, the job they get upon completion of the degree, and the grades they receive. Students scored these three options with a 1, 2 or 3 to indicate most important to least important. In Table 3, we use the response to this question as a proxy for search intensity and model its determinants. In particular, we model the probability that a respondent answers that the job they get upon graduation is the foremost consideration in their minds. Approximately 38% of students fall into this category.

Table 3 illustrates that optimists are significantly less likely to place the greatest importance to getting a job. This holds across a wide range of specifications that control for demographic and admissions characteristics. Males are no different than females in their tendency to report jobs as the item of primary importance. There are no meaningful differences across white, hispanic, or asian ethnicities, and while black respondents are less likely to place importance on jobs, they comprise a very small fraction of the respondent pool.[10]

[10] Approximately ten percent of the student population, and the same fraction of our respondent pool, is made up of students who attend the MBA program under the sponsorship of their prior employer. This sponsorship typically comes with an obligation to return to that employer after the degree is completed (although this is sometimes negotiated away). It is not surprising, then, that they are unlikely to report jobs as the most important factor. Indeed, over two-thirds of sponsored respondents list jobs as the least important factor of the three. Presumably, those who did not had in mind something like a promotion that would be contingent on their performance in the program when they offered that response.

Thus, Table 3 indicates that optimists place less importance on getting a job relative to the other facets of the MBA experience. In the next subsection, we explore how this translates into job search behavior.

3.2 Job Search Activity

Considering students' choices in the job search process allows us to move from beliefs about job importance to actions taken. In Table 4 we measure behaviors associated with job importance by modeling students' search behavior. In particular, we track the number of bids placed by students in the interview bidding system that auctions interview slots to interested students, and the companies that they report interviewing with. These measures are possibly distinct because interview bidding system will not capture the job search behavior of students who conduct their job searches outside of the purview of the school's career services center.

The table shows a strong negative relationship between the LOT-R and job search behavior. In Panel A, we use Poisson regressions to estimate the count of bids as a function of optimism and a series of controls. More optimistic students place fewer bids. In addition to ethnic and demographic controls (gender, age, and marital status), which have no effect, this effect holds even when we include some important controls for expected job search behavior.[11] In particular, controlling for whether the student is sponsored, how much importance they attach to jobs, and how many total job offers they expect to receive, optimists place fewer bids.

Of course, one possible explanation for the results in Panel A is that optimists are more likely to search outside the normal channels, and thus are not captured well by the interview bidding system. To allow for this possibility, we asked the students in round

[11]The negative loading on the dummy for US citizen captures the fact that foreign nationals will search on the US job market in addition to their home country job market, whereas fewer US citizens search globally for jobs.

6 of the survey how many companies they contacted for jobs. This is the dependent variable in Panel B. The interpretation is identical to Panel A; optimists search less intensely.[12]

3.3 Search Yields

Next, we explore regressions that model the success rate of the job search process. This is found in Table 5. This table shows that in spite of expending less search effort, optimists have higher search yields.

The dependent variable in Table 5 is the ratio of interviews obtained divided by interview bids submitted. OLS regressions are reported in each column. Since the median student gets about one job offer for every six bids, the loading on optimism indicates that a one standard deviation increase in optimism is associated with about a 10% improvement in search efficiency at the median.[13] Or put differently, comparing the coefficients in column (2), the effect of optimism is about 10% that of the effect of either citizenship or gender.[14] Comparing across alternative specifications in Table 5, the effect of optimism is robust to a variety of controls for ethnicity, demographics, MBA performance, and labor market beliefs.

4 Job Search Outcomes

Now we shift the focus from beliefs to outcomes. First we explore first-year internship outcomes, as well as how well students assess the probability that they get a highly

[12]Panel B reports OLS regressions. We obtained similar results in Panel B when we ran count regressions instead. In Poisson specifications of Panel B, the point estimate on Optimism is about twice that of Panel A.

[13]The mean is about one interview for every three bids, but this is skewed by the fact that some students are called for interviews without bidding.

[14]Other demographic and ethnicity controls are included in the estimation, but are suppressed for brevity's sake.

coveted job. After that, we explore the determinants of receiving the final job offer. As a final step, we investigate how long it takes respondents to accept the job that they ultimately accept.

4.1 Internship Outcomes

Although we are ultimately interested in final labor market outcomes for MBA students, many students report that they take a job with their first-year summer employer. Also, the summer internship is a key component of the job search process, even for those who take jobs elsewhere. Therefore modeling internship outcomes is an important ingredient to understanding the overall relation between optimism and labor market outcomes. We provide this analysis in Table 6.

The dependent variable in Table 6 is a dummy variable for whether the respondent reported that they had an internship offer as of round 4 of the survey, which coincided with the beginning of the final term of the first year (i.e., the second half of the spring semester). Since most of the interviews for internships occur in the early spring, this is an indication of job search success, but a crude one. Nevertheless, it gives us some preliminary insight into differences in job market outcomes that optimists experience.

The dependent variables include optimism, demographic and admissions controls, as well as controls for a respondent's subjective beliefs about the number of internships they would receive, and a dummy for whether they were sponsored by their prior employer.

Across model specifications, optimists are more likely to have secured a summer internship by the beginning of their fourth term. A one-standard deviation increase in the LOT-R raises the probability of having secured an internship by 1.4 to 2.0%. The demographic controls indicate that younger, white females have the best success at obtaining internships early. Beliefs about the number of internships have no bearing on the outcome here, however being sponsored by one's employer substantially lowers the

probability of having secured an internship. This last fact is probably attributable to the fact that for most sponsored students, their summer return to employment does not count as an internship, since they return to their previous employer.

Note that while we are not measuring the perceived quality of the internship per se, we are in effect measuring whether the respondent has terminated the search for an internship. Therefore, we are observing whether an internship offer has been received that meets or exceeds their reservation level. Viewed in this light, the findings indicate that optimists face better job search outcomes in the first phase of the job search, namely securing a summer internship.

4.2 Final Employment Outcomes

Next we turn to models that estimate the hazard of receiving a full-time job offer. Since many students receive multiple offers before making a final decision, and nearly everyone receives an offer by the time they graduate, we model the amount of time to the first job offer.

Table 7 reports estimates from a Cox Proportional Hazard model, in which the baseline hazard rates are stratified by job field. There are thirteen fields broken across finance, management, marketing, and consulting, but the results reported here are robust to coarser fields that only control for broad job category.

This table shows that being more optimistic raises the hazard of receiving a job offer. The point estimate is expressed as a proportional shift in the baseline hazard; in particular, point estimates greater than one raise the hazard while point estimates below one lower the hazard. The effect of optimism on the hazard of receiving a job offer is generally significant at the 1% level, but when we include the variable that captures whether the internship resulted in a job offer at the end of the summer, the significance of optimism falls to the 5% level. In part, this is due to the fact that optimists are

more likely to receive a job offer from their summer employer. (They are not, however, more likely to go to work for the company that gave them the summer internship, even conditional on having received the offer.)

A number of demographic controls are significant determinants of job search durations, yet these do not drive out the significance of the LOT-R. U.S. citizens receive jobs much faster; this presumably reflects both the additional difficulty in obtaining jobs for visa applicants as well as the additional waiting times associated with overseas offers. Echoing the results for initial internship placement, female respondents experience the shorter times to first job offer. Older respondents wait longer to receive their first job, but this effect loses significance when we control for whether the internship resulted in an immediate job offer. This is because older respondents are significantly less likely to leave their summer internships with a job offer in hand.

In contrast, the job importance parameter is important for determining durations of unemployment. As one might expect, job importance raises the hazard of obtaining a first job offer, significantly if we include controls for whether the internship resulted in an offer.

Because the hazard functions modeled in Table 7 are stratified by the intended field of entry, the findings presented here cannot be readily explained by the fact that optimists—perhaps because they care less about jobs, as potentially evidenced in Table 3—simply select into occupations where there is a relative surplus of jobs, making satisfactory search outcomes easier to obtain. If this were not the case, one could conclude that the findings were attributable to the fact that optimists were satisfied with lower quality jobs. Indeed, the findings in Table 7 indicate that within occupational categories, optimists have better labor market outcomes. Nevertheless, we take this issue up in greater detail in the next subsection.

4.3 Do Optimists Accept Lower Quality Jobs?

One interpretation of the preceding results is that in a number of ways optimists do better in the labor market without trying as hard. This can be seen by the fact that they receive job offers more quickly in spite of placing less importance on job outcomes. Of course, the alternative interpretation is that they simply do not care as much about the quality of the job, and therefore are happy to accept a job that others might prefer to turn down.

In unreported analysis, we explored this option in a number of ways. First, as we have discussed above, we model the probability of receiving a permanent job offer from one's internship, and compare that with the probability of accepting that offer. Optimists are more likely to receive permanent offers from the internships, but no more likely to accept them. These findings speak for optimists being more, not less, choosey.

In addition, we calculated the waiting time between receiving and accepting a job offer. Optimists do not more quickly accept the job offer they receive. Waiting times do not load on the LOT-R in any of the specifications we considered. This speaks against the possibility that our findings are stemming from optimists simply being content with lower quality jobs. We also considered variation in the salary and structure of salary (i.e., the fraction of total salary that was bonus). Again, relative to their peers who entered the same industry, optimists are no different than others in terms of their salary packages. They are paid neither more nor less than their counterparts. Finally, we considered how choosey optimists were by looking among the subset of students who had multiple job offers for which we could compare starting salaries. About 1/3 of students take a job that is not the highest salary offer they receive, but these students are no more or less likely to have high LOT-R scores.

In short, there is no evidence that the smoother job search experience of optimists is attributable to optimists accepting lower quality jobs. If anything, optimists are

choosier.

5 What happens after they graduate?

The final step in the analysis is to consider what happens to students after they graduate. How does their optimism translate into performance on the job?

To study this question, we conducted a follow-up survey in the fall of 2009 for students who graduated in 2007. To keep the response rate as high as possible, we focused on the smallest set of questions that would yield identifiable variation in outcomes. In particular, we asked whether students were still with their current employer, whether they had been promoted, and how their current salary compared to their starting salary. Only gender explains salary growth (males are more likely to have gotten raises), but as Table 8 shows, there is an important relation between optimism and tenure on the job.[15]

The first panel of Table 8 models the probability that the respondent is still at the same job they entered upon graduation. This is not explained by optimism, or by any of the other covariates. In contrast, Panel B focuses on whether the respondent received a promotion. It shows that regardless of specification, optimism has a strong positive effect on the probability that a respondent receives a promotion. Since about 20% of the respondents report that they have been promoted, the magnitude of the point estimate translates into about a 5-10% increase in the probability of being promoted.

In both panels, we include a series of robustness checks. Columns (2) through (4) of each panel include ethnicity dummies as well as demographic controls and admissions

[15]There are a number of reasons why salary growth might be a bad measure of job performance over the 2007-2009 time period. Most notably, the economic recession probably compressed wages. In addition, our wage growth measure was coarse. Indeed, 60% of our respondents indicated that they made between 10-125% of their initial salary. Less than 5% of the sample earned more than 150% of their starting salary.

controls. These have little effect on the loading on optimism, and indeed are not significant in their own right. Importantly, however, the dummy for whether the student entered a finance job has a strong negative impact on the probability of being promoted.

In addition to the standard battery of demographic and admissions controls, we also included the beauty contest variables measured at the end of the MBA. Charisma, future CEO and outward optimism have no impact on being promoted. This is noteworthy, at least for charisma and future CEO, because optimism loads heavily on these external measures. Thus, even though optimists do appear to be more charismatic, this greater interpersonal skill does not seem to play a role in job market outcomes.

6 Robustness

The results up to now are consistent with the idea that optimists perform better in the job search process, and in the jobs they take after graduation, because their personality traits equip them better to make the tradeoffs inherent in job search. But this is not the only candidate explanation for our results. In this section we explore two other sets of competing explanations. Both explanations center around the idea that optimists possess private information about their future success and thus rationally forecast their own outcomes to be better than others.

6.1 Projecting optimism outward to others

A natural question that arises given the correlation between the LOT-R and the beauty contest measures is whether the links between optimism and job search behavior are driven by outward perceptions of optimists. For example, perhaps the outward disposition of optimists causes others to look favorably upon them, and this results in faster, more efficient and successful job searches. We take up this question in Table 9 by us-

ing key regressions from previous tables to set up a horse race between "internal" and "outward" optimism.

Column (1) repeats the analysis in Table 4, Panel B, with regressions of the number of companies contacted on demographic controls, LOT-R and measures taken from the beauty contest. Column (2) estimates a Probit of obtaining an internship offer in the beginning of the Spring, which follows Table 6. Column (3) studies search efficiency, following the analysis in Table 5. Column (4) estimates hazards of first job offers, following Table 7. Each column contains three panels of estimates. In Panel A, we conduct a horse race between optimism and charisma. In Panel B, the race is between optimism and the likelihood of becoming a future CEO. In the third panel, we compare optimism as measured by the LOT-R with the optimism that is perceived by others.

We must take caution in interpreting the coefficients, as the beauty contest variables were measured after the dependent variables in each of the four columns were measured. Thus, strictly speaking, they are not weakly exogenous. However, if we assume that optimism, as measured by the LOT-R, has had a similar outward effect on the peers of respondents in prior settings (i.e., if optimistic MBA students were also charismatic as high school students, as college students, or in their prior jobs), then we can interpret the beauty contest variables as proxies for the charisma of the respondent when they entered the program. On the other hand, if peer assessments of success and charisma are influenced by the outcomes of the job search process, then this interpretation is invalid.

Nevertheless, each panel of Table 9 shows that LOT-R impacts key features of the job search process above and beyond its correlation with the perceptions of others. Of the three beauty contest variables, peer perceptions of the likelihood of being a future CEO mimic the LOT-R most closely (see the middle panel). The loadings are similar in magnitude and both variables are statistically significant in all four specifications. Charisma is important in columns (3) and (4), which capture search efficiency and the hazard of a job offer, but not in the first two columns. Interestingly, peer perceptions of

optimism are insignificant. Across all specifications, however, the LOT-R continues to be significant and of approximately the same magnitude as in the baseline specifications.

This, in turn, allows us to offer a nuanced perspective on the issue of causation. The question, 'Does optimism *cause* X?' can be interpreted in several ways. Based on work in labor economics suggesting that non-cognitive skills are fixed at a relatively young age in life (see Heckman, Stixrud, and Urzua, 2006, for example), it is probably not fruitful to speculate about how a randomly chosen individual's behavior would change if they were exogenously made to be more optimistic. The analysis in Tables 5 and 9, however, suggests that an individual would experience more favorable outcomes if she were more able to behave in a way that made other individuals *think* she were optimistic. This follows from the fact that the loadings on the beauty contest variables are similar in sign and magnitude to the LOT-R variable. Thus, if we interpret causation from a purely behavioral or empirical perspective, the results suggest that indeed, optimism does *cause* better job search outcomes. But Tables 5 and 9 also tell us that 'faking it' has its limits: the fact that optimism affects outcomes above and beyond its correlation with beauty contest variables indicates that a truly optimistic person would still experience better outcomes than someone who was not but who instead pretended to be. This in turn, suggests a third interpretation to the question of causation: what if we delegated important tasks or decisions to optimists? Under this interpretation of causation, the results clearly indicate that a less optimistic individual would experience better outcomes by delegating tasks to an optimist.

6.2 Do optimists have private information?

Another way in which optimists may be making rational forecasts of their labor market outcomes is if they have private information about their job search outcomes. Presumably a respondent who knew they had a high probability of getting a desirable job would not only face good labor market prospects, but this private information might

cause them to appear optimistic more generally.

To explore this possibility, we make use of a series of questions in Round 5 of the survey that ask students about the two companies they would most like to work for. First, they are asked to name the companies they find most desirable. Next, they are asked to provide their estimate of the probability that they will get a job at one of these two companies. Finally, since we know the identity of their ultimate employer, we can determine whether they in fact became employed by one of these firms. Thus, we can ask whether optimistic respondents possess inside information about their job search outcomes.

We examine this in Table 10. In the first three columns, the dependent variable is the probability of obtaining a match at one of the two companies. Probabilities are reported as numbers between 0-100, so the loading on optimism indicates that a one-standard-deviation shift in optimism is associated with a 1-2% increase in the probability of getting the job they want. This result is highly statistically significant, even if the magnitude of their probability differential is not large. (In unreported regressions, we tested whether this is driven by greater numbers of optimists reporting that they are 100% likely to get the job. We also controlled for job offers. These are not driving this result.)

Column (1) includes only optimism, while column (2) introduces gender and age. There is a strong negative loading on gender—males assign about 10% lower probability to receiving the desirable job—but including this variable strengthens the loading on optimism. In column (3) we include citizenship, marital status, ethnicity, and intended job category, and these strengthen the loading on optimism even further. Dispositional optimists clearly assign high probabilities to receiving the jobs they find desirable.

Next we ask whether these expectations materialize. We do this by running Probit models in which the dependent variable is a dummy for whether the respondents ultimate employer matches of the companies they indicated as most desirable. There

is no effect on optimism. This holds regardless of whether we control for the stated probability. Note also that the stated probabilities are informative; respondents with high subjective probabilities of receiving the job are more likely to receive it. There is simply no additional impact attributable to optimism.

Taken together, these results indicate that optimists falsely believe that they have a good chance of receiving the jobs that they consider to be desirable. In unreported tables, we have also included beliefs about starting salaries. These beliefs were obtained by asking respondents at various survey periods to state their beliefs about their own starting salary, and then to state beliefs about the median MBA graduate in the same program. Optimists think that they will earn more than their peers, even though these expectations turn out to be wrong. This evidence speaks against the idea that the link between optimism and positive job search outcomes is driven by private information. Indeed, optimists may think they have private information. But this turns out to be incorrect.

7 Conclusion

Psychologists often distinguish between two types of optimism: dispositional and situational optimism—or, paraphrasing from Peterson (2000), big optimism and little optimism. The distinction is between personality and perception. Big optimism is a broad, pervasive view of the future in which favorable outcomes are perceived to be more likely than is perhaps warranted. Do good things tend to happen to me more than bad? Answers to questions like this reflect dispositional optimism. Little optimism, on the other hand, is a belief that an outcome in a particular domain is more likely than it perhaps actually is. Will my division outperform the other divisions in my firm? How likely is it that I will sink this putt? Answers to these questions reflect a more narrow, situational optimism.

The vast majority of empirical work in behavioral finance and economics has focused on the latter conception of optimism, and pointed out the bad outcomes associated with overconfidence in one's own ability or over-optimism about future outcomes. In short, for most economists, the optimism glass is half empty, not half full.

This paper is different. We focus on dispositional optimism, a personality trait, and show how it is related to a range of positive outcomes in the labor market. Optimists search more efficiently for jobs, get jobs faster and more easily than others, and are more likely to be promoted after two years' time. In many respects, this supports the view of optimism espoused in Taylor and Brown (1988, 1994), who argue that optimism has salutary consequences.

Perhaps the key advantage of our research strategy over past studies linking optimism to economic outcomes is the timing of our measurement. By creating our own panel, we can measure optimism when MBA students first arrive, before they experience success or hardship in the MBA program, thus avoiding the look-back bias that complicates most cross-sectional work. Indeed, by explicitly linking ex ante optimism measurements to ex post measures of how respondents are viewed by others, we can also control for explanations that center around the likeability of optimists driving their success. To be sure, optimists are certainly more charismatic, but this charisma is not responsible for their labor market success.

What, then, drives their success? Recent work in psychology points to the possibility that dispositional optimists are better able to internalize negative feedback than others, and that they have better coping skills. Life is filled with innumerable occasions in which people must carefully balance competing forces: the desire to abandon certain objective when the objective proves unattainable or undesirable, and the need to stay the course when temporary setbacks occur. Coping and resilience are surely a part of the complex balance, and indeed may be a central component of the non-cognitive skills that labor economists have identified as important for work-life success. Given the

concurrent efforts taking place in psychology, as well as in numerous areas of economics, a full account of the link between dispositional optimism and economic outcomes is a rich area for future research.

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Table 1: Participation Characteristics

This table presents demographic characteristics for the proportion of the student population that participated in our survey, as well as for the student population as a whole. Prior Salary is the highest reported salary that an incoming student reported earning in a job prior to attending the MBA. GMAT total, verbal and quantitative are scores on standardized entrance exams for the MBA degree. Business, engineering, arts denotes the fraction of each sample that earned an undergraduate degree in business administration, engineering, or arts and sciences. Grade point average is on a 4.0 scale. 232 students participated in the first four waves of the study.

Variable:	Overall	Declined	Participated	t-test
Male	0.78	0.77	0.78	-0.26
Age	29.13	29.53	28.88	1.93
Married	0.34	0.32	0.36	-0.97
US Citizen	0.53	0.41	0.61	-3.94
Prior Salary	59,053	51,862	63,547	-2.48
Ethnicity				
White	0.45	0.38	0.49	-2.04
Asian	0.37	0.43	0.33	1.97
Black	0.03	0.03	0.02	0.70
Hispanic	0.05	0.03	0.06	-1.39
Other	0.11	0.12	0.10	0.70
GMAT Scores				
Total	701.00	694.56	705.09	-2.49
Verbal	38.98	37.64	39.83	-4.55
Quantitative	46.58	46.90	46.38	1.38
Grade Point Average, by term				
Term 1	3.57	3.52	3.60	-3.03
Term 2	3.46	3.39	3.50	-3.69
Term 3	3.49	3.44	3.52	-2.32
Term 4	3.52	3.46	3.56	-3.12
Undergraduate degree				
Arts	0.33	0.33	0.33	0.03
Business	0.18	0.22	0.16	1.50
Engineering	0.21	0.18	0.24	-1.43

Table 2: The Demographics of Optimism

This table models optimism as a function of demographic characteristics, talent measures, and measures of how subjects are perceived by others. Prior Salary is the maximum reported salary prior to attending the MBA program, and is expressed in 10K units. Charisma, Future CEO, Optimist and Best friend are scores that each respondent received from a school-wide survey asking, for instance, "Who is the most charismatic? Name the top 5." One, two and three asterisks denote significance at the 10%, 5% and 1% level, respectively. Robust standard errors are reported in parentheses below point estimates.

	(1)	(2)	(3)	(4)	(5)	(6)
Charisma		0.127***				0.101*
		(0.04)				(0.06)
Future CEO			0.079			0.034
			(0.06)			(0.07)
Optimist				0.115**		0.058
				(0.05)		(0.06)
Best friend					-0.008	-0.091
					(0.11)	(0.11)
White	1.228	0.813	1.001	0.900	1.041	0.866
	(0.80)	(0.82)	(0.82)	(0.82)	(0.84)	(0.82)
Black	1.346	1.404	1.274	1.233	1.183	1.283
	(1.99)	(1.99)	(2.02)	(2.01)	(2.02)	(2.02)
Hispanic	-0.279	-0.454	-0.401	-0.529	-0.539	-0.393
	(1.40)	(1.41)	(1.43)	(1.43)	(1.43)	(1.43)
Asian	0.171	-0.007	0.089	-0.084	-0.070	0.048
	(0.81)	(0.83)	(0.84)	(0.84)	(0.85)	(0.84)
Male	1.070*	1.055*	1.082*	1.289**	1.222**	1.098*
	(0.60)	(0.60)	(0.62)	(0.61)	(0.61)	(0.61)
Married	0.215	0.410	0.278	0.379	0.375	0.310
	(0.50)	(0.50)	(0.50)	(0.50)	(0.51)	(0.51)
Age	-0.066	-0.072	-0.076	-0.077	-0.090	-0.077
	(0.08)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
Prior salary	-0.013***	-0.014***	-0.014***	-0.013***	-0.013***	-0.014***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
GMAT	-0.001	0.000	-0.003	0.000	-0.002	-0.000
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Bus. degree	0.834	0.963	0.883	0.904	0.924	0.933
	(0.67)	(0.68)	(0.68)	(0.68)	(0.68)	(0.68)
Arts/Sci. degree	0.910*	0.861*	1.009**	0.937*	1.060**	0.825*
	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)
Constant	23.643***	22.663***	25.013***	22.822***	25.256***	23.172***
	(4.87)	(4.78)	(4.82)	(4.93)	(5.02)	(5.05)
Observations	321	310	310	310	310	310
R-squared	0.07	0.10	0.09	0.09	0.08	0.11

Table 3: The Importance of Job over Friends and Grades

The dependent variable is a dummy for whether the respondent attaches primary importance to the job they receive upon graduation, as opposed to the friends they make or the grades they earn. Right-hand side variables include optimism, gender, ethnicity controls, age, and a dummy for whether the student's enrollment was sponsored by an employer. Point estimates are reported as the changes in the probability associated with a one-standard deviation change in a continuous variable, or else a shift from 0 to 1 in a binary variable. Robust standard errors are reported in parentheses below marginal probabilities.

	(1)	(2)	(3)	(4)
Optimism	-0.024***	-0.023***	-0.023***	-0.025***
	(0.01)	(0.01)	(0.01)	(0.01)
Male		0.028	0.019	0.012
		(0.07)	(0.07)	(0.07)
White		-0.117	-0.116	-0.106
		(0.09)	(0.10)	(0.10)
Black		-0.307**	-0.289*	-0.296**
		(0.14)	(0.15)	(0.14)
Hispanic		-0.193	-0.203	-0.184
		(0.13)	(0.13)	(0.13)
Asian		-0.090	-0.100	-0.047
		(0.10)	(0.10)	(0.11)
Age		0.006	0.002	0.005
		(0.01)	(0.01)	(0.01)
US Citizen			-0.006	-0.062
			(0.08)	(0.08)
Married			0.097	0.095
			(0.06)	(0.07)
Sponsored				-0.447***
				(0.05)
Observations	323	323	322	321

Table 4: Job Search Intensity

Panel A reports poisson regressions in which the dependent variable is the number of bids that a respondent placed in the auction system for interview slots in the career management center. Panel B reports OLS regressions in which the dependent variable is the number of companies contacted for interviews (this includes on- and off-campus efforts) as reported by the student. Dummies for white, black, hispanic, and asian ethnicity are estimated but not reported (none are significant, except for white ethnicity in Panel B, which is negative). Demographics include a gender dummy, age, and marital status. Robust standard errors are reported in parentheses below point estimates. Constants are estimated but suppressed. Panel A includes 320 observations; Panel B, 230 observations.

Panel A: Interview Bids	(1)	(2)	(3)	(4)	(5)
Optimism	-0.026*	-0.025*	-0.027*	-0.025*	-0.024*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
US Citizen			-0.303**	-0.367***	-0.397***
			(0.13)	(0.12)	(0.11)
Sponsored				-1.421***	-1.209***
				(0.29)	(0.28)
Job importance					0.251**
					(0.11)
Total offers					0.147***
					(0.03)
Ethnicity	No	Yes	Yes	Yes	Yes
Demographics	No	Yes	Yes	Yes	Yes

Panel B: Companies Contacted	(1)	(2)	(3)	(4)	(5)
Optimism	-0.909***	-0.670***	-0.754***	-0.747***	-0.700***
	(0.22)	(0.20)	(0.21)	(0.21)	(0.22)
US Citizen			-8.281***	-8.945***	-8.942***
			(2.46)	(2.31)	(2.27)
Sponsored				-5.553	-3.033
				(5.41)	(5.82)
Job importance					4.097*
					(2.32)
Total offers					1.994**
					(0.83)
Ethnicity	No	Yes	Yes	Yes	Yes
Demographics	No	Yes	Yes	Yes	Yes
R-squared	0.04	0.14	0.18	0.19	0.23

Table 5: Optimism and Search Efficiency

The dependent variable is job search efficiency: the number of interviews the student received scaled by the number of bids that a respondent placed in the auction system. Dummies for white, black, hispanic, and asian ethnicity are estimated but not reported (none are significant). Age and marital status are estimated as demographic controls but are suppressed. Robust standard errors are reported in parentheses below point estimates. Panel A includes 320 observations; Panel B, 230 observations.

	(1)	(2)	(3)	(4)
Optimism	0.018**	0.018**	0.021***	0.020**
	(0.01)	(0.01)	(0.01)	(0.01)
Male		-0.181***	-0.188**	-0.187**
		(0.07)	(0.07)	(0.07)
US Citizen		0.184**	0.183**	0.182**
		(0.08)	(0.08)	(0.08)
GMAT (total)			-0.001	-0.001
			(0.00)	(0.00)
Prior salary			0.001	0.001
			(0.00)	(0.00)
GPA(term 1)			0.095	0.094
			(0.14)	(0.14)
Job Importance				-0.060
				(0.06)
Constant	-0.081	0.019	0.079	0.138
	(0.17)	(0.36)	(0.77)	(0.77)
Observations	268	267	265	265
Ethnicity	Yes	Yes	Yes	Yes
Demographics	Yes	Yes	Yes	Yes
R-squared	0.02	0.09	0.10	0.11

Table 6: First-year Internship Outcomes

The dependent variable is a dummy for whether the respondent had successfully secured a summer internship by the beginning of Term 4, which occurs in late March. Point estimates are reported as changes in the probability associated with a one-standard deviation change in a continuous variable, or else a shift from 0 to 1 in a binary variable. Robust standard errors are reported in parentheses below marginal probabilities.

	(1)	(2)	(3)	(4)	(5)
Optimism	0.023***	0.019**	0.021***	0.022***	0.019**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Male		-0.163**	-0.177**	-0.175**	-0.194**
		(0.07)	(0.07)	(0.07)	(0.08)
Black		-0.432**	-0.484***	-0.478***	-0.531***
		(0.21)	(0.18)	(0.18)	(0.15)
White		0.109	-0.011	0.005	-0.043
		(0.10)	(0.11)	(0.11)	(0.11)
Hispanic		0.046	0.013	0.032	0.025
		(0.15)	(0.15)	(0.15)	(0.16)
Asian		-0.063	-0.073	-0.041	-0.083
		(0.10)	(0.10)	(0.10)	(0.11)
Age		-0.023**	-0.023**	-0.022**	-0.035***
		(0.01)	(0.01)	(0.01)	(0.01)
US Citizen			0.184**	0.153*	0.161**
			(0.08)	(0.08)	(0.08)
Married			0.130*	0.126*	0.148**
			(0.07)	(0.07)	(0.07)
Sponsored				-0.254**	-0.199*
				(0.11)	(0.12)
Expected internships					0.043
					(0.03)
Observations	263	263	262	261	250

Table 7: Stratified Hazard Estimates of Receiving First Job Offer

This table reports Cox proportional hazard models of the hazard of receiving a job offer. The hazard of a job offer between time t and $t+1$ is the probability of receiving an offer in that interval conditional on not yet having received an offer. The baseline hazard is stratified according to the intended field of employment (Marketing, Management, different types of finance jobs, Consulting). Point estimates are reported as hazard impact factors; i.e., they scale the baseline hazard up or down multiplicitavely by the magnitude of the point estimate. Standard errors are reported in parentheses below point estimates. Job Importance is a dummy for whether the student reported that his/her top priority was the job they received upon graduation. Intern Job Offer is a dummy for whether they received an offer from the employer with whom they held a summer internship. Sponsored is a dummy for whether their enrollment was sponsored by an employer. GPA BTA is the degree to which the student's expectations of their first term grade point average exceeded their actual GPA.

	(1)	(2)	(3)	(4)	(5)
Optimism	1.060***	1.049**	1.063**	1.088**	1.091**
	(0.02)	(0.02)	(0.03)	(0.04)	(0.04)
Male		0.981	0.927	0.595**	0.596**
		(0.19)	(0.18)	(0.13)	(0.13)
White		1.361	1.287	1.598	1.613
		(0.42)	(0.42)	(0.52)	(0.53)
Black		0.963	1.806	0.674	0.682
		(0.63)	(1.35)	(0.66)	(0.67)
Hispanic		1.805	1.629	1.663	1.652
		(0.78)	(0.73)	(0.83)	(0.83)
Asian		1.114	1.206	1.113	1.120
		(0.33)	(0.36)	(0.39)	(0.39)
Age		0.945*	0.929**	0.978	0.980
		(0.03)	(0.03)	(0.04)	(0.04)
US Citizen		1.589*	1.547*	1.865***	1.855**
		(0.38)	(0.36)	(0.45)	(0.46)
Married			1.369*	1.198	1.183
			(0.24)	(0.23)	(0.23)
Job importance			1.159	1.381**	1.375**
			(0.12)	(0.18)	(0.18)
Intern job offer				4.998***	5.039***
				(1.13)	(1.14)
Sponsored					0.894
					(0.49)
Observations	209	209	197	164	163

Table 8: Getting Promoted

The dependent variable in Panel A is a dummy for whether the respondent was still working at the same company as the one they joined upon graduation. The dependent variable in Panel B is a dummy for whether they had been promoted in that job. Dummies for white, black, hispanic, and asian ethnicity are estimated but not reported (none are significant). Demographics include a gender dummy, age, and marital status. Admissions controls include prior salary at the job before earning the MBA, the total GMAT score, undergrad degree, and US Citizen. Finance is a dummy for whether the respondent went into investment banking, sales and trading, VC/PE, asset management, or another finance area (including possibly corporate treasury). None of these omitted controls is significant in either Panel A or Panel B. Point estimates are reported as changes in the probability associated with a one-standard deviation change in a continuous variable, or else a shift from 0 to 1 in a binary variable. Robust standard errors are reported in parentheses below marginal probabilities. 323 observations are used, but 10 are lost to attrition in columns (3) and (4).

Panel A: Remaining at the job

	(1)	(2)	(3)	(4)
Optimism	0.002	0.001	0.003	0.004
	(0.01)	(0.01)	(0.01)	(0.01)
Charisma			0.003	0.025
			(0.01)	(0.02)
Future CEO				-0.022
				(0.02)
Outwardly optimistic				0.004
				(0.01)
Finance		-0.110	-0.097	-0.099
		(0.07)	(0.07)	(0.07)
Ethnicity	No	Yes	Yes	Yes
Demographics	No	Yes	Yes	Yes
Admissions	No	Yes	Yes	Yes

Panel B: Promotion Probabilities

	(1)	(2)	(3)	(4)
Optimism	0.014**	0.012**	0.013**	0.014**
	(0.01)	(0.01)	(0.01)	(0.01)
Charisma			0.005	0.022
			(0.01)	(0.02)
Future CEO				-0.018
				(0.01)
Outwardly optimistic				0.005
				(0.01)
Finance		-0.123**	-0.111**	-0.109**
		(0.05)	(0.05)	(0.05)
Ethnicity	No	Yes	Yes	Yes
Demographics	No	Yes	Yes	Yes
Admissions	No	Yes	Yes	Yes

Table 9: A Horserace Between Internal Optimism and Projected Traits

This table repeats key regressions from previous but includes variables obtained from the beauty contest conducted at the end of the MBA. Column (1) is the number of companies contacted. (See Table 5, Panel B.) Column (2) is obtaining an internship offer in Spring (see Table 7). Column (3) search efficiency (see Table 6). Column (4) is the hazard of a job offer (see Table 8).

	(1)	(2)	(3)	(4)
LOT-R	-0.568***	0.019**	0.016*	0.083**
	(0.21)	(0.01)	(0.01)	(0.04)
Charisma	-0.187	0.007	0.023***	0.072***
	(0.14)	(0.01)	(0.01)	(0.02)
Observations	223	253	258	160
R-squared	0.20	.	0.14	.
LOT-R	-0.567***	0.019**	0.018*	0.089**
	(0.21)	(0.01)	(0.01)	(0.04)
Future CEO	-0.471***	0.027*	0.017***	0.052**
	(0.14)	(0.02)	(0.01)	(0.02)
Observations	223	253	258	160
R-squared	0.21	.	0.12	.
LOT-R	-0.625***	0.020**	0.019**	0.082**
	(0.21)	(0.01)	(0.01)	(0.04)
Optimist	0.172	0.006	0.008	0.050
	(0.20)	(0.01)	(0.01)	(0.03)
Observations	223	253	258	160
R-squared	0.20	.	0.11	.

Table 10: Do Optimists Have Private Information about Job Search Outcomes?

This table explores how respondents match to desirable companies. In round 5 of the survey, respondents are asked to name the two companies they would most like to work for. Then they are asked to state the probability that they will receive a job offer from one of these two companies. In the first three columns, the dependent variable is the stated probability of receiving a job offer. In columns (4)-(6), the dependent variable is a dummy for whether the respondent actually takes a job at this company. Job probability (the dependent variable in columns (1)-(3)) is included as a regressor in column (6). Job category is a control for the stated field of interest at the time of the survey. Ethnicity controls are included in columns (3) and (6) but suppressed for brevity. A constant is estimated in each model but suppressed for brevity.

	Beliefs			Outcomes		
	(1)	(2)	(3)	(4)	(5)	(6)
Optimist	1.269***	1.352***	1.679***	0.008	0.009	0.005
	(0.38)	(0.36)	(0.40)	(0.01)	(0.01)	(0.01)
Male		-10.861***	-13.308***		-0.026	-0.033
		(3.60)	(4.13)		(0.06)	(0.11)
Age		-0.389	0.169		0.000	-0.031*
		(0.53)	(0.57)		(0.01)	(0.02)
US citizen			9.982**			0.017
			(4.14)			(0.11)
Married			4.646			0.218***
			(3.31)			(0.08)
Prior salary			0.028			0.006***
			(0.02)			(0.00)
GMAT			0.133***			-0.000
			(0.05)			(0.00)
Bus. degree			3.456			0.224*
			(5.73)			(0.13)
Arts degree			2.632			0.072
			(3.38)			(0.09)
Job Probability						0.004**
						(0.00)
Ethnicity	No	No	Yes	No	No	Yes
Job Category	No	No	Yes	No	No	Yes
Observations	201	201	199	323	323	183
R-squared	0.05	0.12	0.29	.	.	.

Appendix A. Data Description

The data used for this paper come from four distinct sources: (1) an online survey administered to MBA students 8 times during their two year program; (2) data from the admissions office, detailing demographics, GMAT test scores and prior work experience; (3) data from the Career Management Center detailing their participation in an interview bidding system, through which students bid on interview slots for jobs at companies that participate in recruiting at the school in question; and (4), data from a follow-up survey conducted two years after graduation. This appendix provides more detail about each of these data sources.

The Books and Bucks Survey

The first source of data is an eight-wave survey administered on-line to MBA students. Each time the survey was administered, the students were contacted via email and made aware of a voluntary, anonymous survey that could be accessed through a banner on the school's student intranet. The length of the survey varied each time, but was designed to take around 5-10 minutes to complete.

An overview of the material included in the survey is contained in Table 11.

Table 11: Survey Overview

Survey	Survey		Expectations:			
Round	Timing	LOT-R	Grade	Job	Hindsight	Satisfaction
1	Aug. 2005	X	-	-	-	-
2	Aug. 2005	-	X	X	-	-
3	Jan. 2006	-	X	X	-	-
4	Mar. 2006	-	X	X	-	-
5	Aug. 2006	-	X	X	X	X
6	Jan. 2007	X	X	X	X	-
7	Mar. 2007	-	X	X	X	-
8	Apr. 2007	-	-	-	X	X

Survey 1 was conducted in early August, 2005, when the students were still in the preterm orientation program. It consisted solely of the LOT-R test, which is described in its entirety below. Survey 2 was conducted in late August, 2005, and consisted of questions asking students to state their expectations of their classroom and job-search performance. A similar set of questions was used in Surveys 3 and 4.

Survey 5 was conducted when the students returned for the second year of school, and mimicked surveys 2, 3, and 4, with the addition of questions surrounding whether

their summer internship matched their expectations. Surveys 6 and 7 were similar to surveys 3 and 4, but included an additional LOT-R test to validate the measure in our data. Kaniel, Massey and Robinson (2009c) explores the within-person stability of the LOT-R over time. Surveys 7 and 8 occurred at the beginning and end of the final term; the final survey includes retrospective questions on satisfaction during the MBA.

In addition to the responses obtained from each online survey, we also have access to the actual grade each student received in each class, allowing us to compare expectations of classroom performance with actual classroom performance. This is explored in detail in Kaniel, Massey and Robinson (2009b).

The Life Orientation Test-Revised

The following is a reproduction of the LOT-R obtained from Professor Charles Carver. This is based on Carver, Scheier and Bridges (1994). Items in brackets are fillers. Negative responses are reverse scored so that scale runs from 5-30.

A I agree a lot (5 points)

B I agree a little (4 points)

C I neither agree nor disagree (3 points)

D I DISagree a little (2 points)

E I DISagree a lot (1 point)

1. In uncertain times, I usually expect the best.
2. [It's easy for me to relax.]
3. If something can go wrong for me, it will.
4. I'm always optimistic about my future.
5. [I enjoy my friends a lot.]
6. [It's important for me to keep busy.]
7. I hardly ever expect things to go my way.
8. [I don't get upset too easily.]
9. I rarely count on good things happening to me.
10. Overall, I expect more good things to happen to me than bad.

The Best in Show Survey

The following table reports the pairwise correlations between the LOT-R and the variables obtained from the beauty contest.

Table 12: Projecting Optimism

This table presents correlations between the LOT-R measure conducted in August, 2005 and the responses from a "beauty contest" conducted in May, 2007. Charisma(Own) tallies the number of votes each person received "Who is the most charismatic person in your section? Name the top 5." Charisma (BC) tallies the votes for "Who is the person viewed as most charismatic by others in your section? Name the top 5." Similarly, Future CEO (own/bc) tallies responses to "(Who do you think/Who do others think) is most likely to be CEO? Name the top 5." Optimist (own/BC) tallies answers to "Who (do you think/do others think) is the most optimistic person in your section? Name the top 5." Best friend is the number of votes each person received for "Name your five closest friends."

		Charisma		Future CEO		Optimist		Best
	LOT-R	Own	BC	Own	BC	Own	BC	Friend
LOT-R	.							
Charisma(Own)	0.181	.						
Charisma(BC)	0.202	0.943	.					
Future CEO (Own)	0.125	0.456	0.417	.				
Future CEO (BC)	0.147	0.552	0.542	0.933	.			
Optimist (CEO)	0.128	0.545	0.504	0.059	0.080	.		
Optimist (BC)	0.138	0.620	0.594	0.088	0.136	0.944	.	
Best Friend	0.054	0.370	0.343	0.093	0.152	0.309	0.338	.

Career Management Data

The online surveys are augmented by data from the Career Management Center. Companies that recruit on campus maintain a list of students who are directly invited for interviews, and they also allocate a certain number of interviews to the auction. Students use non-transferable, non-redeemable points to bid on interview slots. In addition, the Career Management Center maintains a database recording any and all job offers that students receive (including offers that are not accepted). This database records the date of the offer, a flag for whether it was accepted, the date of the acceptance if accepted, the starting salary, and the signing bonus.

Admissions Data

The data used in this paper also include data obtained from the admissions office. These data include the variables listed in Table 1.