

NORMATIVE DISCRIMINATION AND THE MOTHERHOOD PENALTY

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This research proposes and tests a new theoretical mechanism to account for a portion of the motherhood penalty in wages and related labor market outcomes. At least a portion of this penalty is attributable to discrimination based on the assumption that mothers are less competent and committed than other types of workers. But what happens when mothers definitively prove their competence and commitment? In this study, we examine whether mothers face discrimination in labor-market-type evaluations even when they provide indisputable evidence that they are competent and committed to paid work. We test the hypothesis that evaluators discriminate against highly successful mothers by viewing them as less warm, less likable, and more interpersonally hostile than otherwise similar workers who are not mothers. The results support this “normative discrimination” hypothesis for female but not male evaluators. The findings have important implications for understanding the nature and persistence of discrimination toward mothers.

Keywords: *family; social psychology; work–family; motherhood penalty*

Mothers fare worse in the labor market than women without children and men. Analyses of survey data have documented a motherhood wage penalty across a range of samples, control variables, and model specifications (Anderson, Binder, and Krause 2002; Budig and England 2001; Glauber 2007; Waldfogel 1997, 1998). Cross-nationally, the penalty exists in more than a dozen countries in Europe and North America (Harkness and

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Waldfogel 1999; Misra, Budig, and Moller 2005), and constitutes a substantial risk factor for poverty (Misra, Budig, and Moller 2005). Over the life course, the penalty cumulates into a considerable disadvantage for mothers (Crittenden 2001; Sigle-Rushton and Waldfogel 2004).

Experimental research indicates that the penalty arises at least in part because employers practice status-based discrimination, stereotyping mothers as less competent and committed to paid work than nonmothers (Correll, Benard, and Paik 2007; Cuddy, Fiske, and Glick 2004; Fuegen et al. 2004; Halpert, Wilson, and Hickman 1993). This article builds on status discrimination research by examining reactions to mothers who challenge these stereotypes by providing overwhelming evidence of their competence and commitment. In such cases, does motherhood cease to influence decisions about hiring, salary, and other organizational rewards? This article raises the alternate possibility that mothers with unimpeachable work credentials might instead experience a different form of discrimination.

We draw on theories of prescriptive stereotyping to argue that when mothers refute others' doubts about their abilities or effort, they will experience disadvantage from a form of bias that we call "normative discrimination" (Burgess and Borgida 1999; Eagly and Karau 2002; Heilman 2001; Heilman et al. 2004; Ridgeway 1982; Rudman 1998). Normative discrimination occurs when employers discriminate against mothers because employers believe, perhaps unconsciously, that success in the paid labor market (particularly in jobs traditionally considered masculine) signals stereotypically masculine qualities such as assertiveness or dominance. These qualities are inconsistent with those culturally expected of mothers, such as being warm and nurturing. We expect that when employed mothers violate these normative expectations by showing a high level of competence and commitment to paid work, they will be disliked and viewed as less warm and more interpersonally hostile (e.g., more selfish, cold, and devious) than other types of workers. As a result, employers may be more likely to deny salary and other rewards to successful mothers than to other successful employees.

By developing and testing this argument, the research seeks to advance our understanding of the motherhood penalty as well as our understanding of workplace gender inequality more broadly. Most women with children younger than 18—approximately 68 percent in 2008—work in the paid labor market (U.S. Bureau of Labor Statistics 2008). In addition, mothers' wages have grown more slowly over time than those of women without children, leading scholars to suggest that the gender gap in wages may primarily be a *motherhood* gap (Glass 2004). Normative discrimination could play an important role in explaining this gap, particularly the portion

of the wage gap that results from the “glass ceiling” (Kanter 1977; Maume 2004) that obstructs women’s entry into upper-level management. If employed mothers are disliked and penalized when they give evidence of success in the workplace, they will be at a serious disadvantage.

THE MOTHERHOOD WAGE PENALTY AND STATUS DISCRIMINATION

The finding that mothers experience status-based discrimination is well established. Laboratory studies show that evaluators stereotype mothers as less competent and committed than otherwise identical workers who are not mothers (for a review, see Benard, Paik, and Correll 2008). In one of the earliest studies that examined the effects of pregnancy on evaluations, participants shown a video of a woman interacting with others in a work scenario gave the woman lower performance and work commitment ratings when she appeared to be pregnant compared to an otherwise identical video in which the same woman did not appear to be pregnant (Halpert, Wilson, and Hickman 1993). Focusing on motherhood, Cuddy, Fiske, and Glick (2004) asked participants to evaluate profiles of management consultants that varied on sex category and parental status. They found that female consultants, but not male consultants, were rated as less competent and worthy of hire or extra training when they had children. A similar study asked participants to evaluate résumés for attorneys and found that mothers were held to stricter standards than fathers and disadvantaged in hiring and promotion (Fuegen et al. 2004).

Research by Correll, Benard, and Paik (2007) investigated the motherhood penalty in the laboratory and the labor market. In a laboratory study, participants evaluated a pair of job applicants who differed only on parental status and rated mothers as less competent, committed, and worthy of salary and other rewards. The researchers then submitted similar applications to real job openings. The results of this audit study closely corresponded to those in the laboratory; mothers were called back regarding their applications about half as often as nonmothers.

The existence of status discrimination raises new questions. If discrimination against mothers is based on biased assessments of their performance, is discrimination reduced when mothers definitively prove their competence and commitment? We suggest that while irrefutable evidence of workplace competence and commitment could improve evaluations of mothers’ performance, it could also trigger normative discrimination as employers draw on prescriptive stereotypes about appropriate roles for mothers.

DESCRIPTIVE AND PRESCRIPTIVE GENDER STEREOTYPING

Theories of discrimination often examine how cultural beliefs or stereotypes affect behaviors or attitudes (Bobo and Hutchings 1996; Fiske et al. 2002). Gender stereotypes fall into two categories: descriptive and prescriptive or proscriptive (Berger, Cohen, and Zelditch 1972; Eagly and Karau 2002; Heilman 2001; Heilman et al. 2004; Ridgeway 1982). Research on the motherhood wage penalty has focused on descriptive stereotyping; research on prescriptive discrimination focuses on women in general rather than mothers.

Descriptive stereotypes are widely shared beliefs about different traits and abilities men and women possess (Berger, Cohen, and Zelditch 1972; Burgess and Borgida 1999; Correll and Ridgeway 2003; Heilman 2001; Heilman et al. 2004; Ridgeway 1982). Men are assumed to possess greater agentic qualities associated with leadership and workplace achievement, such as competence, intelligence, and assertiveness, whereas women are assumed to possess greater communal qualities associated with helping behavior, such as warmth, empathy, and selflessness. As a result, people tend to believe men naturally excel at agentic occupations such as lawyer or chief executive while women are best suited for communal occupations such as nurses or counselors (Burgess and Borgida 1999; Eagly and Karau 2002; Heilman 2001; Heilman et al. 2004). Discrimination based on descriptive stereotypes occurs when women are seen as unfit or insufficiently competent to perform a masculine-typed job (Eagly and Karau 2002). As a result, discrimination based on descriptive stereotypes can be reduced by learning more about an individual. If a woman gives evidence that she is a talented litigator, for example, the extent to which she suffers from descriptive stereotypes should be less compared to when employers lack evidence of her abilities (Burgess and Borgida 1999, 665-66).

While descriptive stereotypes derive from cultural beliefs about what men and women *can* do, prescriptive and proscriptive stereotypes derive from cultural beliefs about what men and women *should* or *should not* do (Burgess and Borgida 1999; Eagly and Karau 2002; Heilman 2001; Heilman et al. 2004; Ridgeway 1982; Rudman 1998). Like descriptive stereotypes, prescriptive and proscriptive stereotypes follow the agency–communality dichotomy: men are expected to be agentic (and not modest), and women are expected to be communal (and not assertive). Because prescriptive stereotypes are norms, people tend to disapprove of those who violate them. Men who do not behave agentially tend to be viewed as unmasculine and

subjected to a variety of sanctions (Connell 1995; Kimmel 1994; Moss-Racusin, Phelan, and Rudman 2009). Similarly, women who do behave agenticly are evaluated negatively on a number of dimensions (Ridgeway 1982; Rudman 1998; Rudman and Glick 1999).

Most high-status jobs are “masculine typed,” that is, the traits associated with success in these jobs are agentic traits stereotypically associated with men (Acker 1990; Britton 2000; Eagly and Karau 2002; Heilman 2001; Rudman and Glick 1999). For example, when people “think manager,” they “think male” (Schein et al. 1998). As a result, success in high-status masculine-typed jobs is taken as evidence that a person possesses agentic, masculine qualities (Heilman 2001, 660-61). For a woman, success in a masculine-typed job thus signals both that she is competent and that she is in violation of prescriptive gender norms (Burgess and Borgida 1999). As a consequence, people tend to assume not only that professionally successful women possess agentic qualities but also that they suffer from a *deficit* of stereotypically feminine communal qualities. Thus, women in high-status jobs experience a “double-bind”: They can either be seen as competent and not likable, or they can be viewed as likable but not competent. Men, in contrast, are not penalized for behaving agenticly (Rudman 1998).¹

Agentic women may be viewed as more “hostile,” that is, cold, deceitful, bitter, selfish, devious, and personally disliked (Heilman 2001, 667-68). They may also be viewed as less warm and nurturing. These negative attributions have the consequence of leading individuals to penalize successful women in terms of rewards such as salary and hiring (Heilman et al. 2004; Rudman and Glick 1999). For example, Rudman (1998) found that women who were self-promoting were rated as more competent but also less likable and less hireable.

While both descriptive and prescriptive stereotypes motivate discrimination, research on the motherhood penalty to date has focused exclusively on descriptive stereotyping. Similarly, work on prescriptive stereotyping focuses on normative discrimination toward women, but not mothers. Yet it is likely that mothers experience normative discrimination when they demonstrate competence or commitment to paid work.

MOTHERHOOD AND PRESCRIPTIVE STEREOTYPING

For mothers to experience normative discrimination beyond that experienced by women in general, prescriptive stereotypes specific to motherhood must exist and affect the experiences of mothers in the workplace. In fact,

there is abundant evidence of prescriptive stereotypes, particularly around the “separate spheres” ideology and the norm of intensive mothering. Research has documented the existence of widely accepted cultural beliefs prescribing domestic responsibilities and proscribing labor market achievement for mothers (Blair-Loy 2003; Coltrane and Adams 2008; Kimmel 2004, 119-27).

The ideology of separate spheres continues to underlie prescriptive stereotypes that structure the interaction of family and work. Qualitative accounts of dual-career couples show that men and women often consider care of children and the home to be the primary responsibility of the woman, even when her earnings are greater (Hochschild 1989/2003; Stone 2007). This is especially problematic for couples in which a woman works in a high-status, masculine-typed job that requires long hours and constant availability (Blair-Loy 2003; Stone 2007). In her study of executive women, Blair-Loy (2003, 6) describes this division using two normative cultural models—the “family devotion schema” and the “work devotion schema”—that mandate domesticity for women and paid labor for men. Similarly, Stone (2007) found that women who left high-status professional jobs reported little support from partners or employers for staying on the job after having children but received substantial praise and encouragement when deciding to leave the labor market to care for children fulltime.

The prescriptive stereotypes associated with separate spheres ideology have been exacerbated in recent years by the emerging ideology of “intensive mothering” (Hays 1996, 9), which mandates that mothers invest extremely high levels of time and resources in their children (Blair-Loy 2003; Hays 1996; Stone 2007). Such investments are incompatible with the prescription that “ideal workers” should be available to work unconstrained hours for their employers (Acker 1990; Cha 2010; Williams 2000). By definition, a mother who shows evidence of success in the labor market is in violation of this norm of intensive mothering.

Thus, there is substantial evidence that mothers are not only perceived to be warm and nurturing but also culturally *obligated* to display these qualities. This obligation is in tension with the belief that masculine-typed jobs require assertiveness, aggression, and dominance. We thus expect that when mothers succeed in these jobs, they will be seen as lacking in interpersonal qualities and penalized for violating this obligation.

While combining labor market success and parenthood is culturally considered counternormative and potentially a sign of undesirable interpersonal qualities in mothers, the opposite is true for fathers. At least for middle-class men, having children marks them in the eyes of others as kinder, more expressive—yet still masculine—“new fathers” (Coltrane and Adams 2008).

Moreover, professional men tend to be viewed as more mature and stable when they become fathers and thus more suited for upper-level management positions (Coltrane 2004). Thus, although successful mothers may be viewed less positively, successful fathers may be viewed as having more positive interpersonal qualities.

There is also indirect experimental evidence that suggests that mothers experience normative discrimination. In an experimental study by Corse (1990), MBA students evaluated a manager as less fair when she was presented as pregnant than when the identical manager was presented as not pregnant. Also consistent with the normative discrimination hypothesis, one study found that mothers were evaluated as less nurturing when they worked full-time compared to part-time, but fathers experienced no such penalty (Etaugh and Folger 1998). We would not expect men to be seen as less nurturing when they work full-time, because full-time work and fatherhood are culturally considered to be part of the "package deal" defining manhood in the United States and thus are not seen as in conflict (Townsend 2002). Much evidence thus suggests that prescriptive stereotypes penalize labor market success for mothers, at least in masculine-typed jobs. In contrast, such stereotypes may actually benefit fathers.

EMPIRICAL PREDICTIONS

Based on prior work on the motherhood penalty, we predict that when information about competence and commitment is moderately ambiguous, mothers will experience status discrimination. In this case, we expect that evaluators will view mothers as less competent and committed than other types of employees and offer them fewer organizational rewards. This has been well established in prior research. New to this study, we expect that when mothers are portrayed as unambiguously high performing, evaluators will concede that mothers are competent and committed but perceive them to be more interpersonally hostile, and less warm and likable, relative to highly successful employees who are not mothers. As a consequence of normative discrimination, we also expect evaluators to offer successful mothers lower levels of organizational rewards (e.g., hiring and salary) compared to otherwise identical nonmothers. That is, we predict that indisputable evidence of workplace competence and commitment will not eliminate discrimination but merely alter its mechanism. We also explore whether normative discrimination causes successful mothers to be held to stricter standards. Discrimination based on prescriptive stereotypes often takes the

form of excluding women from the workplace (Heilman 2001). Faced with mothers who meet high standards, evaluators may respond by changing those standards.

EVALUATOR SEX CATEGORY AND PRESCRIPTIVE STEREOTYPING

Should we expect male and female evaluators to respond differently to successful employed mothers? Prior work on *descriptive* stereotyping finds that male and female evaluators show similar levels of bias toward employed mothers (Correll, Benard, and Paik 2007; Cuddy, Fiske, and Glick 2004; Fuegen et al. 2004; Halpert, Wilson, and Hickman 1993). For *prescriptive* stereotyping, however, research has found conditions under which female evaluators penalize successful women to a greater extent than male evaluators do.

Recent work suggests that prescriptive stereotyping may be driven by *threats to self-concept* (Parks-Stamm, Heilman, and Hearn 2008). Evidence indicates that people perceive similar, highly successful others as threatening to one's self-concept when that person's success seems unattainable. In these cases, they tend to derogate successful others as interpersonally hostile and not likable (Parks-Stamm, Heilman, and Hearn 2008). This is especially relevant for understanding workplace discrimination because men and women tend to make within-sex category comparisons in the workplace (Kulik and Ambrose 1992; Major 1989). For example, a recent series of experiments found that female, but not male, study participants felt more positively about their own competence after derogating a successful professional woman, but this effect disappeared when they saw the successful woman's success as personally attainable (Parks-Stamm, Heilman, and Hearn 2008).

There are a number of structural and institutional factors that could lead women to be more likely than men to perceive labor market success as difficult to obtain, including status biases (Ridgeway 1982), the glass ceiling (Kanter 1977; Maume 2004), boundary heightening (Pierce 1995), sexual harassment (Bargh et al. 1995), and occupational sex segregation (England et al. 1988). Women may also perceive motherhood barriers, such as discrimination (Correll, Benard, and Paik 2007) and lack of support from partners, work, or public policy (Cha 2010; Coltrane and Adams 2008; Crittenden 2001; Hochschild 1989/2003; Stone 2007).²

For men, successful women should not be threatening to self-concept because people tend to make within-sex category comparisons (i.e., women are generally not a relevant comparison group for men; Kulik and Ambrose

1992; Major 1989). Men should also be less likely to view a successful *man* as threatening because men anticipate fewer obstacles in achieving labor market success than women. Thus, while men and women often show similar levels of descriptive bias toward women and mothers, to the extent that female participants in our study perceive greater threats to their self-concept than male participants, they may show greater levels of prescriptive bias. Furthermore, the perception that motherhood and labor market success are incompatible may cause female participants, but not male participants, to view a mother achieving high levels of success at work as threatening.

METHOD

To determine whether mothers face normative discrimination when they give overwhelming evidence of competence and commitment to paid work, we conducted a laboratory study in which participants evaluated a pair of job applications for a midlevel marketing job. The study manipulated applicant sex category (male or female), parental status (parent or nonparent), and level of ambiguity of past workplace performance. As described in more detail below, we created a setting of low ambiguity by including a glowing past performance review in the applicants' files. In a second condition, we created a setting of moderate ambiguity by not including a performance review. Other applicant materials (e.g., resumes) have been used in prior research and present applicants who are generally perceived to be above average in terms of their competence, commitment, and hirability. The "moderate ambiguity" condition is a near replication of earlier work on status discrimination (Correll, Benard, and Paik 2007). The primary contribution of the study is the addition of the "low ambiguity" condition, which allowed us to test our normative discrimination mechanism by evaluating how participants responded to highly successful mothers.

Participants. Participants consisted of 260 (105 male, 154 female, and 1 not specified) undergraduates at a private university in the northeast. Data from 8 (3 percent) of the participants were discarded because these participants were suspicious about some aspect of the experimental procedure. Discarded participant data were evenly distributed across experimental conditions.

Procedure. The design extends recent work examining hiring discrimination against mothers (Correll, Benard, and Paik 2007; Cuddy, Fiske, and Glick 2004; Fuegen et al. 2004). Study participants arrived at the lab individually

and were shown to a private cubicle. Participants read a description of a company that was hiring for a midlevel marketing position. They then evaluated files for two applicants for the position, which varied on parental status but were otherwise highly similar. The order in which they received the files (parent or nonparent first) was counterbalanced. After reviewing the files, the participants completed a series of surveys for each applicant. First, participants completed an “initial impressions survey” that included the competence measures as well as a free-response “pros and cons” section that encouraged them to think carefully about each applicant. Next, they completed an “Interpersonal Skills Evaluation,” in which they rated the applicants on the interpersonal hostility and likability measures. Participants then completed an “Applicant Evaluation Sheet,” which included the measure of commitment, the ability standards measures, and the organizational reward measures. Participants then filled out a series of measures designed to measure their task orientation and evaluation criteria. Participants were interviewed to assess suspicion, debriefed, and paid for their participation.

Cover story. Participants were told that they were evaluating résumés on behalf of a communications technology company based in California, which was now hiring for a new East Coast office. To increase participants’ investment in the task, they were told that the applicants were real and that their feedback would influence actual hiring decisions. The instructions explained that the company was seeking feedback from college students because younger adults are avid consumers of its products. Participants also read a description of the marketing position, including its salary range (\$135,000–\$180,000). We used a high-status, highly paid professional position for several reasons. First, mothers are underrepresented in these types of jobs, and it is important to account for this gap. Second, because these positions are highly compensated, gaps in representation are an important source of gender inequality. Third, because of the gender typing of these jobs, they are contexts in which normative discrimination is especially likely.

Application materials. The two applicant files that participants inspected were identical across conditions, except that first names were varied to manipulate sex category (see below). Each file contained four items: (1) a brief memo with notes ostensibly taken from a short telephone interview, (2) the applicant’s résumé, (3) a fact sheet that included GPA and other information not listed on the résumé, and (4) a form with information about the applicant’s most recent performance review. The applicant files were carefully constructed so that the applicants were of equivalent quality without being suspiciously similar.³

Sex category manipulation. The sex category of applicants was manipulated by using names commonly associated with men or women in the United States on the application materials. The names used were Allison and Sarah for female applicants and Brad and Matthew for male applicants.⁴

Parental status manipulation. Following earlier work (Correll, Benard, and Paik 2007; Cuddy, Fiske, and Glick 2004; Fuegen et al. 2004), parent status was manipulated in two places. On the résumé, the applicant lists as an additional activity being an officer in either his or her local parent–teacher association (in the parent condition) or his or her neighborhood association (in the nonparent condition). In addition, the memo from the telephone interview with the applicant purportedly conducted by a human resources representative at the hiring company mentioned a spouse and children in the parent condition and a spouse only in the nonparent condition; in all cases the spouse’s name indicated a heterosexual marriage.⁵ The applicants’ résumés did not include gaps that would indicate time out of the labor market.

Performance ambiguity manipulation. The level of ambiguity about past workplace competence and commitment was manipulated in a manner adapted from Heilman et al. (2004). In the low ambiguity condition, participants read a summary of each applicant’s most recent performance review. The reviews provided unambiguous evidence that both applicants were exceedingly competent and committed. The applicants’ qualifications were presented in both quantitative (“Her/his performance is in the top 5% of all employees at her/his level”) and qualitative (“one of the most productive employees that our division has hired in recent memory”) terms.

In the moderate ambiguity condition, participants instead read a letter stating that the performance reviews were pending and would be available shortly. The letter mentioned the categories on which the applicant would be evaluated. The performance reviews and letters were matched on word length (94 words each). In this way, we can compare conditions in which employers have relatively more discretion to form subjective impressions of the applicants with a condition in which there is overwhelming evidence of their competence and commitment.

Applicant sex category and level of performance ambiguity are between-participants variables, while parent status is a within-participants variable. In other words, each participant evaluated a pair of same sex applicants—one parent and one nonparent—whose past performance is either moderately ambiguous or unambiguously positive. These three variables yield a 2 (parental status: parent or nonparent) \times 2 (applicant sex category: male or

female) \times 2 (performance ambiguity: moderate or low) mixed factorial design with eight conditions.

Dependent Measures

Competence and commitment. On the “initial impressions” survey, we asked participants to evaluate applicants’ competence on a range of 7-point scales measuring the extent to which participants believed the job candidates were *capable, efficient, skilled, intelligent, independent, self-confident, aggressive, and organized* (Correll, Benard, and Paik 2007; Cuddy, Fiske, and Glick 2004). We averaged these items to create a composite competence measure ($\alpha = .84$). We measured commitment by asking participants to rank the applicants’ perceived work commitment on a percentile scale. A ranking of 0 percent meant that all other applicants were considered more committed than that applicant, while a ranking of 99 percent meant that the applicant was considered more committed than 99 percent of all other applicants.

Warmth. Drawing on the same prior studies, we also asked participants to evaluate applicants on a range of 7-point warmth measures, indicating the extent to which the applicants were perceived as *sincere, trustworthy, warm, and aware of others’ feelings*. We averaged these items to form a composite warmth measure ($\alpha = .80$).

Liking and interpersonal hostility. Drawing on Heilman et al. (2004), we asked participants to respond to scale items asking how likable they considered the applicant and how much they expected that they would personally like each applicant. These measures were averaged to form a composite ($\alpha = .80$). We also included a series of 7-point interpersonal hostility measures, rating the extent to which the applicant was perceived as *abrasive, conniving, manipulative, selfish, and pushy*. We constructed a composite measure by averaging these items ($\alpha = .90$).

Ability and effort standards. We also examine whether normative discrimination affects the ability and effort standards applicants must meet (Correll, Benard, and Paik 2007). We asked participants to report the score an applicant would have to achieve on a test of management ability, and how often applicants could arrive late or leave early, and still be considered for hire.

Organizational reward measures. The organizational reward measures were used to assess discrimination (Correll, Benard, and Paik 2007). Participants indicated whether they would hire each applicant and rated the

likelihood that applicants would deserve promotion or further management training. Finally, we asked participants to suggest a starting salary for the applicant from a range of possible salaries.

The Use of Undergraduates

The present study recruited a sample of undergraduate participants to test the hypotheses. Testing the normative discrimination hypotheses requires that all participants closely examine the applications and report their evaluations in detail, a process that takes approximately one hour. Recruiting over 250 actual employers to do this would be extremely challenging. This raises the question of whether the students' responses will be similar to those of managers. Comparisons of students and managers find that their ratings of applicants tend to be very similar (Cleveland and Berman 1987). Indeed, a meta-analysis of the effect of applicant sex category on evaluations by students and managers found no significant differences (Olian and Schwab 1988). For the motherhood penalty, a recent study using similar materials to those used in the current study combined a laboratory experiment with undergraduate participants and an audit study of actual employers and found that the magnitude of the penalty was virtually identical across samples and methods (Correll, Benard, and Paik 2007). Thus, there is substantial evidence that students and managers make similar evaluations in these settings. To further increase the generalizability of our results, we adapted the resumes used in this study from those used by Correll, Benard, and Paik (2007) so that we would have greater confidence that employers and undergraduates react similarly to them. It is also important to note that a new audit study would not be able to test the normative discrimination mechanism since audit studies generally yield a binary callback–no callback measure, thereby establishing the presence of discrimination but not its mechanism.

RESULTS

Our analyses included both regression models to test interaction effects and *t*-tests to examine simple effects. We conducted the regression analyses with applicant sex category and parent status as main effects as well as their interaction (which we refer to as the “motherhood penalty interaction”). Because participants rated the applicants in pairs, we cluster the standard errors by participant ID to account for nonindependence. We use linear regression models for the salary dependent variable, logistic regression for the binary dependent variables (hire, promotion, management), and ordered

logistic regression for the ordered categorical dependent variable, likelihood of promotion. Parental status and applicant sex category are dummy variables, with parents and female applicants coded as 1.

For the bivariate analyses, we use paired or unpaired *t*-tests of means and *z*-tests of proportions, as appropriate, to evaluate comparisons between particular applicants. To simplify the presentation, we refer to female and male applicants who give evidence of having children as “mothers” and “fathers” and female and male applicants who do not give evidence of having children as “nonmothers” and “nonfathers,” respectively. All *p*-values reported are two-tailed. We describe *p*-values that are less than .05 as “significant” and refer to those between .05 and .10 as “marginally significant” and recommend caution in interpreting them.

The Motherhood Penalty under Moderate Performance Ambiguity

As the moderate ambiguity condition is a nearly identical replication of prior work on status discrimination (Correll, Benard, and Paik 2007), we briefly summarize the results of the moderate ambiguity condition and then discuss the results of the low ambiguity condition in detail. Tables with full results for the moderate ambiguity condition are available on request.

In the moderate ambiguity condition, participant sex category did not significantly interact with the motherhood penalty interaction; consequently, the data for male and female participants were pooled. As expected, the regression analysis found a negative, significant motherhood penalty interaction for competence ($p < .05$) and commitment ($p < .01$). Simple effects analysis confirmed that mothers were rated as significantly less competent than nonmothers ($p < .01$) and fathers ($p < .05$) and significantly less committed than nonmothers ($p < .001$). Also as expected, mothers were not penalized on warmth, likability, or hostility. There was a marginally significant ($p < .10$) tendency for mothers to be required to score higher on the test of management ability. Mothers were also significantly less likely to be recommended for hire ($p < .05$), and offered marginally significantly lower starting salaries ($p < .10$). Overall, the results of the analysis replicate prior work and support our prediction that mothers experience status-based discrimination under conditions of moderate performance ambiguity.

The Motherhood Penalty under Low Performance Ambiguity

Preliminary analyses. The novel prediction of the current study is that mothers who provide indisputable evidence of workplace competence and commitment will no longer experience status discrimination but will instead

experience normative discrimination, being rated as less likable and otherwise more interpersonally deficient. To evaluate this prediction, we first report several preliminary analyses. In the interest of space, these results are summarized here and full tables are available on request.

To determine whether the results varied by participant sex category, we added the main effect of participant sex category, and its interaction with the motherhood penalty interaction, to the regression models described above (which included applicant sex category, parent status, and their interaction). Preliminary regression analyses found a significant or marginally significant participant sex category by motherhood penalty interaction across a majority of the dependent measures. The participant sex category by motherhood penalty interaction was marginally significant for the likability and warmth measures and significant for the hostility, test score, salary, recommend for hire, and promotion measures. The consistent pattern across these interactions was for female, but not male, participants to demonstrate normative discrimination. For this reason, we present the results below for the low ambiguity condition separately for male and female participants.

Next, we conducted regression analyses testing for a significant motherhood penalty separately for male and female participants in the low ambiguity condition. As expected, when applicants were presented as highly successful, mothers were *not* judged as significantly less competent or committed than other applicants by either male or female participants. Thus, unambiguous evidence of workplace success eliminated status discrimination. However, for female participants in this condition, we did find a significant motherhood penalty interaction across a range of other measures, including likability, hostility, test score, hiring, salary, and promotion. Consistent with the sex category of participant effects described above, the motherhood penalty interaction was not significant across these measures for male participants.

To explore these results in more detail, we next examine the bivariate analyses for the low ambiguity condition. The tables include columns with the means and standard deviations or proportions for applicant ratings by parent status and applicant sex category. The tables also include three additional columns showing the differences in the means, along with standard deviations and significance levels, when we compare mothers to nonmothers, mothers to fathers, and fathers to nonmothers.⁶ We first present the results for female participants in our study, in Table 1a.

Female participants, low ambiguity. As expected, when the applicants were presented as highly successful, there were no significant differences in female participants' ratings of competence for mothers compared to nonmothers or fathers. Mothers were still viewed as less committed than

TABLE 1A: Low Ambiguity Condition, Female Raters Only; Means or Proportions and Mean Differences of Status, Interpersonal, Standards, and Organizational Reward Variables by Sex Category and Parental Status of Applicant

	Means						Mean Differences					
	Female Applicants		Female Applicants		Male Applicants		Mothers – Nonmothers		Mothers – Fathers		Fathers – Nonfathers	
	Mothers	Nonmothers	Nonmothers	Fathers	Fathers	Nonfathers	Nonmothers	Fathers	Nonmothers	Fathers	Nonfathers	
Competence												
<i>M/M</i> diff.	5.64	5.61	5.78	5.72	5.72	5.72	0.03	-0.14	0.06	0.06	0.06	0.10
<i>SD/SE</i>	0.68	0.66	0.61	0.46	0.46	0.46	0.11	0.07	0.10	0.07	0.10	0.10
Commitment												
<i>M/M</i> diff.	78.59	84.38	80.12	80.10	80.10	80.10	-5.79*	-1.53	0.02	0.02	0.02	2.41
<i>SD/SE</i>	14.12	12.74	18.74	15.30	15.30	15.30	2.81	3.90	2.41	3.90	2.41	2.41
Hostility												
<i>M/M</i> diff.	3.17	3.08	2.98	3.64	3.64	3.64	0.09	0.19	-0.67**	0.19	-0.67**	0.20
<i>SD/SE</i>	1.53	1.28	1.12	1.39	1.39	1.39	0.22	0.31	0.20	0.31	0.20	0.20
Likability												
<i>M/M</i> diff.	5.22	5.29	5.80	4.87	4.87	4.87	-0.07	-0.58*	0.93***	-0.58*	0.93***	0.20
<i>SD/SE</i>	1.27	0.82	0.70	0.93	0.93	0.93	0.27	0.23	0.20	0.23	0.20	0.20
Warmth												
<i>M/M</i> diff.	5.26	5.18	5.57	5.29	5.29	5.29	0.08	-0.31†	0.28†	-0.31†	0.28†	0.14
<i>SD/SE</i>	0.82	0.77	0.70	0.77	0.77	0.77	0.13	0.18	0.14	0.18	0.14	0.14
Days allowed late												
<i>M/M</i> diff.	3.82	3.62	4.27	3.46	3.46	3.46	0.21	-0.44	0.80***	-0.44	0.80***	0.19
<i>SD/SE</i>	2.96	2.42	1.84	1.58	1.58	1.58	0.41	0.56	0.19	0.56	0.19	0.19
% score required on exam												
<i>M/M</i> diff.	58.24	54.41	42.93	49.85	49.85	49.85	3.82†	15.31*	-6.93**	15.31*	-6.93**	2.02
<i>SD/SE</i>	29.1	28.78	30.25	34.94	34.94	34.94	2.14	6.90	2.02	6.90	2.02	2.02

(continued)

TABLE 1A: (continued)

	Means						Mean Differences		
	Female Applicants		Male Applicants		Male Applicants		Mothers – Nonmothers	Mothers – Fathers	Fathers – Nonfathers
	Mothers	Nonmothers	Fathers	Nonfathers	Nonfathers				
Salary recommended (\$)	144,000	151,000	152,000	146,000	–7,000*	–7,000	6,000**		
<i>M/M</i> diff.	22,000	18,000	17,000	15,000	3,000	5,000	2,000		
<i>SD/SE</i>	0.85	0.97	0.90	0.88	–0.11†	–0.05	0.02		
Proportion recommended for management									
Likelihood of promotion									
<i>M/M</i> diff.	3.21	3.53	3.61	3.41	–0.32*	–0.40**	0.20†		
<i>SD/SE</i>	0.59	0.51	0.54	0.55	0.12	0.13	0.11		
Proportion recommended for hire	0.71	0.91	0.88	0.8	–0.21*	–0.17†	0.08		

NOTE: Among female participants, 34 rated female applicants and 41 rated male applicants. Slight discrepancies in differences are because of rounding. See text for variable descriptions.
 † $z/p < .10$. * $z/p < .05$. ** $z/p < .01$. *** $z/p < .001$.

nonmothers, although the penalty is smaller in magnitude in the low ambiguity condition.

Consistent with the normative discrimination hypotheses, evaluations of mothers' interpersonal characteristics relative to others were more negative in the low ambiguity condition. Highly successful mothers were perceived as significantly less likable than highly successful fathers (but not less likable than nonmothers). Successful mothers were also rated as equally as warm as nonmothers but marginally significantly less warm than fathers. Thus, compared to otherwise identical, highly successful fathers, mothers are penalized on two of the three interpersonal ratings, being seen as less likable and warm. The hostility measure was in the predicted direction but not significant.

The interpersonal penalty for successful mothers contrasts sharply with evaluations of successful fathers. Compared to men without children, highly successful fathers are perceived as significantly less hostile, as more likable, and as marginally significantly warmer. Thus, for highly successful applicants, parenthood enhances the perceived interpersonal qualities of male but not female applicants. As a result, among highly successful parents, mothers are substantially disadvantaged in their ratings relative to fathers. This supports prior work finding that, for men in professional occupations, fatherhood is perceived as a signal of positive interpersonal qualities (Coltrane 2004).

There is also a tendency to hold highly successful mothers to stricter standards and hold highly successful fathers to more lenient standards. Mothers were required to score marginally significantly higher on the test of management ability than nonmothers and significantly higher than fathers before being considered for hire. As in the moderate ambiguity condition, the days allowed late variable was in the predicted direction but not statistically significant for mothers. However, fathers were allowed more leniencies, being allowed to leave early or arrive late significantly more often than nonfathers.

Consistent with the normative discrimination hypothesis, female participants in the low ambiguity condition penalized nonmothers on hire, promotion, and salary. Female participants offered successful mothers lower starting salaries than equally successful nonmothers. The gap between mothers and fathers was substantively similar but not statistically significant. In contrast, fathers were offered significantly higher salaries than nonfathers. Female participants were marginally significantly less likely to recommend mothers for management training compared to nonmothers, while the gap between mothers and fathers was not statistically significant. Mothers were significantly less likely to be recommended for hire than nonmothers and marginally significantly less likely to be recommended for hire than fathers. Finally,

mothers were also rated as significantly less likely to be promoted in the future than nonmothers and fathers. There was also a marginally significant tendency for fathers to be rated as more promotable than nonfathers.

Male participants, low ambiguity. In contrast to the results for female participants, male participants in the low ambiguity condition made fewer distinctions between the applicants, as shown in Table 1b. Male participants favored nonfathers on salary: There were marginally significant tendencies to offer nonfathers higher salaries than fathers. Male participants were also marginally significantly less likely to hire fathers than nonfathers and significantly less likely to hire fathers than mothers. In addition, mothers were rated as warmer than nonmothers. While there were fewer significant differences in the ratings of male participants than in the ratings of female participants, it is interesting that where differences were found in male participants' ratings, most were in the direction of favoring nonfathers over fathers. Female participants, by contrast, were more likely to favor fathers over nonfathers.

To this point, we have shown that when performance information is moderately ambiguous, mothers experience status discrimination. Male and female participants rated mothers as less competent and committed, held them to stricter standards, and penalized them on organizational rewards. When performance ambiguity is low, however, male and female participants evaluated the applicants very differently. The results for female participants are consistent with the normative discrimination hypotheses. Successful mothers were rated lower on both warmth and likability, they were held to stricter standards, and they were penalized in the distribution of rewards such as salary and hiring. There were also substantial bonuses for fathers when being rated by female participants. Male participants, in contrast, tended to favor successful nonfathers in salary recommendations and penalize successful fathers on the hiring recommendation. They did not penalize successful mothers on the interpersonal variables.

Mediation Analysis

We further explore the normative discrimination hypothesis by examining whether the likability and warmth ratings, but not the competence and commitment ratings, mediate the motherhood penalty in the low performance ambiguity condition. The normative discrimination hypothesis contends that highly successful mothers will be discriminated against because they are viewed as less likable and warm, not because they are seen as less competent or committed. To evaluate this prediction we estimate multivariate models,

TABLE 1B: Low Ambiguity Condition, Male Raters Only: Means or Proportions of Status, Interpersonal, Standards, and Organizational Reward Variables by Sex Category and Parental Status of Applicant

	Means						Mean Differences		
	Female Applicants		Male Applicants		Male Applicants		Mothers – Nonmothers	Mothers – Fathers	Fathers – Nonfathers
	Mothers	Nonmothers	Nonmothers	Fathers	Nonfathers	Nonfathers			
Competence									
<i>M/M diff.</i>	5.68	5.68	5.68	5.51	5.63	0.00	0.17	–0.12	
<i>SD/SE</i>	0.65	0.76	0.76	0.60	0.49	0.12	0.18	0.10	
Commitment									
<i>M/M diff.</i>	79.59	81.04	81.04	71.54	76.63	–1.44	8.05	–5.08	
<i>SD/SE</i>	13.31	12.92	12.92	22.00	18.46	3.04	5.02	4.72	
Warmth									
<i>M/M diff.</i>	5.45	4.94	4.94	5.24	5.06	0.52*	0.21	0.18	
<i>SD/SE</i>	0.75	0.90	0.90	0.65	0.70	0.20	0.20	0.15	
Hostility									
<i>M/M diff.</i>	3.44	3.65	3.65	3.54	3.50	–0.21	–0.10	0.04	
<i>SD/SE</i>	1.24	1.14	1.14	1.29	1.25	0.25	0.35	0.26	
Likability									
<i>M/M diff.</i>	5.26	4.94	4.94	5.33	4.98	0.31	–0.07	0.35	
<i>SD/SE</i>	0.94	1.18	1.18	0.83	0.96	0.33	0.25	0.27	
Days allowed late									
<i>M/M diff.</i>	3.44	3.10	3.10	4.04	3.75	0.35	–0.60	0.29	
<i>SD/SE</i>	1.95	1.21	1.21	2.33	2.23	0.29	0.60	0.22	
% score required on exam									
<i>M/M diff.</i>	56.30	59.81	59.81	59.38	57.71	–3.52	–3.08	1.66	
<i>SD/SE</i>	26.7	27.75	27.75	30.51	27.78	2.06	8.01	2.10	

(continued)

TABLE 1B: (continued)

	Means						Mean Differences		
	Female Applicants		Male Applicants		Male Applicants		Mothers – Nonmothers	Mothers – Fathers	Fathers – Nonfathers
	Mothers	Nonmothers	Fathers	Nonfathers	Nonmothers	Fathers			
Salary recommended (\$)	147,000	147,000	150,000	154,000	1,000	–3,000	–4,000 [†]		
<i>M/M</i> diff.	19,000	19,000	8,000	11,000	2,000	4,000	2,000		
<i>SD/SE</i>	0.81	0.88	0.83	0.88	–0.07	–0.02	–0.04		
Proportion recommended for management									
Likelihood of promotion	3.44	3.44	3.29	3.54	0.00	0.15	–0.25		
<i>M/M</i> diff.	0.64	0.58	0.62	0.66	0.13	0.17	0.18		
<i>SD/SE</i>	0.81	0.78	0.54	0.79	0.04	0.27*	–0.25 [†]		
Proportion recommended for hire									

NOTE: Among male participants, 27 rated female applicants and 24 rated male applicants. Slight discrepancies in differences are because of rounding. See text for variable descriptions.

[†] $z/p < .10$. * $z/p < .05$. ** $z/p < .01$. *** $z/p < .001$.

which include applicant sex category, parental status, and their interaction as independent measures. We then add (1) competence and commitment ratings and (2) likability and warmth ratings in separate models to determine whether accounting for these sets of ratings reduces the motherhood penalty. As dependent measures, we examine hiring, promotion, and salary.⁷ We present results for female participants only, as it was only female participants who demonstrated normative discrimination. We also present results for the low ambiguity condition only; the results for the moderate ambiguity condition closely replicate prior findings, are consistent with the trends identified above, and are available on request. Table 2 presents the mediation results.

Consistent with the normative discrimination hypotheses, under conditions of low ambiguity, warmth, and likability ratings lead to greater reductions in the motherhood penalty than do measures of competence and commitment. Adding the warmth and likability measures reduces the motherhood penalty by 15 to 20 percent, whereas including the competence and commitment measures reduced the penalty by 2 to 7 percent.⁸

Higher competence ratings lead to significantly higher odds of being recommended for hire or promotion and marginally significantly higher recommended salaries. Higher commitment ratings also marginally increase salary recommendations. However, under conditions of low ambiguity, adding these measures to the models does little to reduce the motherhood penalty. For promotability and hirability, adding competence and commitment decreases the motherhood penalty by 2 and 4 percent, respectively; for salary rankings, the penalty is reduced by approximately 7 percent. That is, among the highly successful applicants, the motherhood penalty persists even when controlling for competence and commitment ratings.

In contrast, adding the interpersonal measures (i.e., warmth, likability) reduces the motherhood penalty by approximately 15 percent for promotion and 20 percent for hiring and salary. Motherhood no longer has a significant effect on hiring after accounting for the effects of applicant likability and warmth. Higher warmth ratings also lead to higher evaluations of applicant promotability and salary recommendations. For evaluations of salary and hirability, likability is not significant when added to the model with warmth but is significant when the measures are added to the model separately (results not shown). In sum, when mothers present overwhelmingly positive evidence of workplace performance, evaluations of mothers' competence and commitment explain little of the discrimination they experience. Instead, at least among female participants, highly successful mothers experience discrimination in part because of interpersonal qualities such as likability and warmth.

TABLE 2: Low Ambiguity Condition, Female Raters Only: Estimated Regression Coefficients for the Mediation of Competence, Commitment, Likability, and Warmth on the Impact of Parental Status on Workplace Evaluations

	Promotion Likelihood (Ordered Logistic Estimates)	Promotion Likelihood + Competence, Commitment	Promotion Likelihood + Interpersonal Ratings	Hire? (Binary Logistic Estimates)	Hire? + Competence, Commitment	Hire? + Interpersonal Ratings	Recommended Salary in Thousands of Dollars (Linear Estimates)	Recommended Salary in Thousands of Dollars + Competence, Commitment	Recommended Salary in Thousands of Dollars + Interpersonal Ratings
Parent	0.40 [†] (0.43)	0.39 [†] (0.43)	0.20 (0.49)	0.31 (0.68)	0.30 (0.66)	0.12 (0.75)	6.13** (2.17)	5.76** (1.98)	3.34 (2.41)
Female applicant	0.20 (0.44)	0.23** (0.49)	0.21 (0.50)	0.50 (0.73)	0.54 (0.76)	0.44 (0.27)	5.64 (3.88)	5.70 (3.77)	5.29 (3.80)
Motherhood interaction ^a	-0.99** (0.64)	-0.95 (0.67)	-0.84* (0.70)	-1.08* (1.03)	-1.06* (1.03)	-0.87 (1.12)	-12.89** (3.87)	-11.92** (3.94)	-10.27* (4.13)
Competence		0.47** (0.35)			0.39* (0.37)			6.41 [†] (3.28)	
Commitment		0.01 (0.02)			0.004 (0.01)			0.14 [†] (0.07)	
Likability			0.12 (0.21)			0.17 (0.27)			1.60 (1.53)
Warmth			0.32* (0.27)			0.08 (0.29)			3.54* (1.41)
Constant	- ^b	-	-	1.39** (0.40)	-3.55 [†] (1.98)	-1.04 (1.57)	145.45** (2.19)	97.95** (18.54)	119.10** (9.97)
Percentage change in motherhood penalty	NA	-4	-15	NA	-2	-20	NA	-7	-20

NOTE: N = 75 participants. Robust standard errors are in parentheses, clustered by participant ID. Logistic and ordered logistic estimates are y* standardized.

a. Parent × female applicant.

b. Since ordered logistic regression produces multiple intercepts, we do not present them here.

[†]p < .10. *p < .05. **p < .01.

DISCUSSION

The primary contribution of this study is to identify normative discrimination as a new theoretical mechanism contributing to the motherhood penalty in wages and other career-relevant outcomes. We build on prior work on status discrimination by asking how evaluators respond when mothers definitively prove their competence and commitment to paid work. Drawing on theories of prescriptive stereotyping, which have shown that women experience “penalties for success” in traditionally masculine-typed jobs (Heilman et al. 2004), we predicted that highly successful mothers would be seen as equally competent and committed, but with more negative interpersonal qualities, compared to other highly successful job applicants. These lower interpersonal ratings, we predicted, would lead to fewer organizational rewards. Thus, evidence of workplace success will not eliminate discrimination but alter its mechanism. As a secondary aim, we sought to reproduce prior findings of status discrimination.

For female participants in our study, the results supported the normative discrimination hypotheses. When performance information is unambiguous, female participants rated successful mothers as significantly less likable compared to otherwise identical fathers. There was also a marginally significant tendency for women to rate mothers as less warm than otherwise identical fathers. Highly successful men were thus perceived as possessing more positive interpersonal qualities when they had children but highly successful women were not, significantly disadvantaging mothers.

Female participants in our study also held highly successful mothers to stricter standards and penalized them on recommendations for promotion, hire, and salary. Importantly, the penalties for highly successful mothers were not explained by the competence and commitment ratings. Instead, a substantial proportion of the penalty was mediated by the perception that successful mothers were interpersonally deficient. That participants reached such disparate evaluations of mothers and other applicants, despite otherwise identical resumes, is strong evidence for normative discrimination. We thus show for the first time that prescriptive stereotypes disadvantage mothers, at least when being evaluated by female participants.

While the results for female participants closely corresponded to the hypotheses, male participants in the study generally did not penalize mothers, although they did show some tendency to penalize fathers. While we cannot definitively explain this pattern with these data, recent work suggests a possible answer. Research has shown that threats to self-concept—spurred by the sense that another’s success is inaccessible—can lead women to

penalize successful professional women. The college women in our study may have felt threatened by a mother who appeared to have overcome the challenges of discrimination (Correll, Benard, and Paik 2007) and lack institutional support for work–life balance (Cha 2010; Coltrane and Adams 2008; Crittenden 2001; Hochschild 1989/2003; Stone 2007). The sense that labor market success and motherhood are incompatible may be exacerbated by media accounts of an “opt-out revolution.” These media accounts, which have focused on the experiences of women who are college graduates, may feel especially threatening to young college women, such as those who were the participants in our study (Williams, Manvell, and Bornstein 2006). Men are less likely to feel threatened by successful fathers, given that combining work and family is normative for men in the United States (Townsend 2002). Men are also unlikely to feel threatened by successful mothers, as people generally view others only of the same sex category as relevant for comparisons (Parks-Stamm, Heilman, and Hearn 2008).

If this account is correct, it suggests the pattern of results in the low ambiguity condition would be reversed if the target of evaluation threatened the self-concept of male participants. One possibility is that male participants’ self-concept might be threatened by fathers who violate masculine gender norms by behaving in a nurturing, communal manner. Indeed, one experimental study found that men who took leave from work to care for children or elders were penalized on ratings of workplace altruism and compliance and that this penalty was especially strong on the part of male evaluators (Wayne and Cordeiro 2003).

Alternatively, perhaps male participants *did* feel threatened by the successful fathers but to a lesser extent than female participants felt threatened by successful mothers. Indeed, we do find that male participants were less likely to recommend successful fathers for hire and also recommended them lower starting salaries. Taken together, our results and prior studies suggest that male and female evaluators may discriminate against caregivers similarly in some contexts but differently in others. In particular, it may be that both men and women are more vigorous in policing within-gender violations of prescriptive stereotypes. Future work should closely examine this hypothesis by addressing the nature and consequences of threats experienced by men and women.

An additional limitation of the study is that we examine a single masculine-typed job. We used a masculine-typed job because normative discrimination theory predicts that success by mothers in masculine-typed jobs signals the possession of proscribed stereotypically masculine traits more strongly than success in feminine-typed jobs. We would accordingly expect to find lower

levels of normative discrimination when mothers succeed in feminine-typed jobs, to the extent that success in these jobs is interpreted as a signal of traits such as warmth and nurturing ability. However, even when success is taken as a signal of nurturing traits, most jobs offer opportunities to behave assertively. When mothers act assertively, even in feminine-typed jobs, they thus may experience additional penalties. For example, one study found that assertive women were penalized more severely in management positions seen as feminized (Rudman and Glick 1999). Future work should explore these predictions.

In addition to the direct contribution of developing and testing the normative discrimination hypotheses, this research has broader theoretical and practical implications. Theoretically, it demonstrates that discrimination against mothers is multidimensional and persistent: While documented workplace success can reduce status discrimination, it can simultaneously trigger normative discrimination. On a policy level, this underscores that individual-level attempts to “solve” the problem of motherhood discrimination—such as advice to mothers to simply advertise their successes—may actually backfire by motivating normative discrimination. Because the problem exists at the level of cultural assumptions, structural changes are required to change social norms. In particular, evidence of normative discrimination suggests the need for policies that will make the presence of mothers in the workplace increasingly normative. While much discussion of family-friendly workplaces focuses on “leave” policies—and these are indeed important—the present work suggests that we focus more attention on “stay” policies, which facilitate caring for children while continuing to work, as suggested by Stone (2007). Although most mothers already work for pay, such policies could have important cultural implications by signaling that workplaces view work and family as compatible. Emphasizing the compatibility of work and family as not just a practice but also as a norm with broad-based cultural support could help to reduce normative discrimination.

NOTES

1. These gendered patterns are consistent with a general tendency to characterize groups as competent but not warm when they are perceived to be successfully competing with members of dominant groups in society; Asian Americans and Jewish people are two groups commonly subjected to such discrimination (Fiske et al. 2002).

2. This possibility echoes Hochschild's (1989/2003, xv) perspective on college women's attitudes toward balancing work and family: “I don't believe these lively,

enquiring eighteen-to-twenty year old students haven't thought about the problem. I believe they are afraid of it. And because they think of it as a 'private' problem, each also feels alone."

3. To ensure that both applicants' résumés were of equivalent quality, we pretested the résumés with no names or parental status information included and found no significant differences in ratings of their quality. Furthermore, the files were counterbalanced so that each of the two résumés was assigned to the parent for half of the sample and the nonparent for the other half of the sample.

4. The names were drawn from Bertrand and Mullainathan (2003), who sampled birth certificate data from the 1970s to obtain common names for men and women of approximately the same age as our applicants.

5. Much previous experimental work on the motherhood focuses on evaluations of mothers in heterosexual relationships. However, one experiment comparing evaluations of heterosexual and lesbian mothers found no penalty for the lesbian mothers (Peplau and Fingerhut 2004). This was because, unlike heterosexual women, lesbian women were not viewed as less career oriented after becoming a mother.

6. We did not have hypotheses regarding nonmothers versus nonfathers and so do not include this analysis in the table.

7. We do not include recommendations for management, as the motherhood penalty was not significant for this measure. In addition, Long (1997:69-71) points out that it can be misleading to compare coefficients across logit models, if the coefficients are unstandardized. Following his recommendation, we therefore present y^* -standardized coefficients for the promotion and hiring models. The y^* -standardized coefficient for the independent variable x_k is $\beta_k^{y^*} = \frac{\beta_k}{\sigma_{y^*}}$, and

indicates the number of standard deviations by which y^* can be expected increase for a unit increase in x_k .

8. The percentage reduction in the motherhood penalty was calculated by dividing the difference between the premediation coefficient and the postmediation coefficient by the value of the premediation coefficient. For example, the 15 percent reduction in the motherhood penalty for promotion likelihood, when adding the warmth and likability measures, was calculated as $[(-0.99) - (-0.84)] / (-0.99) = 0.15$ (rounded). Slight differences in the presented coefficients and percentage reductions are because of rounding.

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