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# Cognitive Bias and the Motherhood Penalty

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## INTRODUCTION

When women become mothers, their labor market prospects tend to suffer. A number of studies have documented that mothers experience worse labor market outcomes than women without children.<sup>1</sup> Perhaps most well established is the motherhood wage penalty: mothers earn approximately 5% less per child than other workers, over and above any gender wage penalty.<sup>2</sup> The penalty persists even after statistically controlling for education, work experience, race, whether an individual works full- or part-time, and a broad range of other human capital and occupational variables.<sup>3</sup> The motherhood wage penalty is not limited to the United States, but has been documented in at least a dozen other industrialized nations.<sup>4</sup> The penalty also has not shown signs of decline over time.<sup>5</sup>

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1. See, e.g., Michelle Budig & Paula England, *The Wage Penalty for Motherhood*, 66 AM. SOC. REV. 204, 204 (2001). For related work, see generally Deborah J. Anderson et al., *The Motherhood Wage Penalty Revisited: Experience, Heterogeneity, Work Effort, and Work-Schedule Flexibility*, 56 INDUS. & LAB. REL. REV. 273 (2003); Shelly Lundberg & Elaina Rose, *Parenthood and the Earnings of Married Men and Women*, 7 LAB. ECON. 689 (2000); and Jane Waldfogel, *The Effect of Children on Women's Wages*, 62 AM. SOC. REV. 209 (1997). For other examples of studies of the motherhood wage penalty see Jane Waldfogel, *Understanding the 'Family Gap' in Pay for Women with Children*, 12 J. ECON. PERSP. 137 (1998) [hereinafter Waldfogel, *Understanding*].

2. Budig & England, *supra* note 1.

3. *Id.*

4. Waldfogel, *Understanding*, *supra* note 1, at 141; see also SUSAN HARKNESS & JANE WALDFOGEL, *THE FAMILY GAP IN PAY: EVIDENCE FROM SEVEN INDUSTRIALISED COUNTRIES* 15 (1999); Joya Misra & Michelle Budig, *The Cross-National Effects of Work-Family Policies on the Wage Penalty for Motherhood* 8 (Oct. 15, 2006) (unpublished grant proposal submitted to the National Science Foundation) (on file with *The Hastings Law Journal*) (discussing the motherhood penalty cross-nationally). A motherhood penalty has been documented in countries including Australia, Austria,

In this Article, we review evidence that the motherhood penalty is due, at least in part, to cognitive bias that produces discrimination against mothers. By cognitive bias, we refer to the tendency for subjective, often implicit, mental associations between categories (such as “mothers”) and attributes (such as competence, work commitment, and warmth) to shape evaluations of members of those categories. For example, learning that a job applicant is a mother may lead a manager to perceive her as warmer, but less competent than an applicant without children.<sup>6</sup> This is an example of bias because the effect of motherhood on evaluations occurs independently of the applicant’s actual qualifications, and is triggered by stereotypical associations between motherhood and other attributes. Psychological literature has extensively examined the processes by which stereotypes are activated and applied in evaluations.<sup>7</sup> This Article will focus on several theories explicitly addressing discrimination against mothers.<sup>8</sup>

There are a number of reasons why understanding cognitive bias against mothers is important, from both scholarly and applied legal perspectives. These reasons include the significant cumulative disadvantage for mothers over time, the consequences for children, the

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Belgium, Canada, Finland, France, Germany, Italy, Luxembourg, the Netherlands, the United Kingdom, the United States, and Sweden. While all of these countries exhibit a motherhood penalty, the size of the penalty varies by country. Waldfogel, *Understanding*, *supra* note 1, at 141 tbl.2.

5. Sarah Avellar & Pamela Smock, *Has the Price of Motherhood Declined Over Time? A Cross-Cohort Comparison of the Motherhood Wage Penalty*, 65 J. MARRIAGE & FAM. 597, 604 (2003).

6. Amy J.C. Cuddy et al., *When Professionals Become Mothers, Warmth Doesn’t Cut the Ice*, 60 J. SOC. ISSUES 701, 709 (2004).

7. A few examples of relevant social psychological work on stereotyping include: John A. Bargh et al., *Automaticity of Social Behavior: Direct Effects of Trait Construct and Stereotype Activation on Action*, 71 J. PERS’LTY & SOC. PSYCHOL. 230 (1996), discussing the effect of stereotype activation on behavior, rather than simply on perception; Patricia G. Devine, *Stereotypes and Prejudice: Their Automatic and Controlled Components*, 56 J. PERS’LTY & SOC. PSYCHOL. 5 (1988), discussing the vulnerability of both high and low-prejudice individuals to cognitive bias; Daniel T. Gilbert & Gregory J. Hixon, *The Trouble of Thinking: Activation and Application of Stereotypic Beliefs*, 60 J. PERS’LTY & SOC. PSYCHOL. 509 (1991), discussing the effects of cognitive load on stereotype activation and application; Anthony G. Greenwald & Mahzarin Banaji, *Implicit Social Cognition: Attitudes, Self-Esteem, and Stereotypes*, 102 PSYCHOL. REV. 4 (1995), discussing implicit stereotype activation; Ziva Kunda et al., *The Dynamic Time Course of Stereotype Activation: Activation, Dissipation, and Resurrection*, 82 J. PERS’LTY & SOC. PSYCHOL. 283 (2002), discussing the persistence of stereotype activation over the course of an interaction; and Thomas K. Srull & Robert S. Weyer, Jr., *The Role of Category Accessibility in the Interpretation of Information About Persons: Some Determinants and Implications*, 37 J. PERS’LTY & SOC. PSYCHOL. 1660 (1979), discussing the effects of cognitive activation of trait categories on person perception.

8. For examples of useful reviews and theoretical statements, see John A. Bargh & Melissa J. Ferguson, *Beyond Behaviorism: On the Automaticity of Higher Mental Processes*, 126 PSYCHOL. BULL. 925 (2001); Ziva Kunda & Stephen J. Spencer, *When Do Stereotypes Come to Mind and When Do They Color Judgment? A Goal-Based Theoretical Framework for Stereotype Activation and Application*, 129 PSYCHOL. BULL. 522 (2003); and Timothy D. Wilson & Nancy Brekke, *Mental Contamination and Mental Correction: Unwanted Influences on Judgments and Evaluations*, 116 PSYCHOL. BULL. 117 (1994).

widespread labor market participation of mothers, the implications of the penalty for related forms of discrimination, and the recent increase in legal cases involving discrimination on the basis of caregiving responsibilities.<sup>9</sup> We will briefly consider each of these reasons.

First, cognitive bias against mothers can cumulate to produce serious disadvantages in the long term.<sup>10</sup> An analysis of mothers under the age of forty-five in the United States showed that they earn an estimated 80% of the lifetime wages of otherwise similar women without children. This lifetime wage penalty is even larger in a number of other countries.<sup>11</sup> Furthermore, the penalty may be understated, given that the sample used in this study consisted of relatively young women.<sup>12</sup> Some estimates place the lifetime motherhood wage penalty for college-educated women at over one million dollars.<sup>13</sup> Perhaps not surprisingly, given these figures, motherhood is also a strong predictor of the likelihood of poverty in old age.<sup>14</sup> This is due in part to the fact that, in addition to losing substantial earnings, mothers also do not accumulate social security credits for any time they are away from the labor market.<sup>15</sup>

Second, discrimination against mothers may reduce the well-being of children, relative to their well-being if mothers did not experience discrimination.<sup>16</sup> By negatively impacting mothers' career outcomes, the motherhood penalty may reduce caregivers' ability to provide food, clothing, education, and other resources.<sup>17</sup> This may be especially true for the 19% of households headed by single mothers.<sup>18</sup>

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9. See ANN CRITTENDEN, *THE PRICE OF MOTHERHOOD: WHY THE MOST IMPORTANT JOB IN THE WORLD IS STILL THE LEAST VALUED* 6 (2001) (showing statistical disparities among workers and their effects on family spending and earning); MARY C. STILL, *LITIGATING THE MATERNAL WALL: U.S. LAWSUITS CHARGING DISCRIMINATION AGAINST WORKERS WITH FAMILY RESPONSIBILITIES* 2 (2006) (tracking trends in litigation of family responsibility discrimination litigation); U.S. BUREAU OF LABOR STATISTICS, *CHARTING THE U.S. LABOR MARKET IN 2006*, at §§ 5-6 (2007), available at <http://www.bls.gov/cps/labor2006/chartbook.pdf> (addressing cumulative disadvantages); Jennifer Glass, *Blessing or Curse? Work-Family Policies and Mother's Wage Growth Over Time*, 31 *WORK & OCCUP.* 367, 369 (2004) (tying motherhood to the gender gap in pay); Wendy Sigle-Rushton & Jane Waldfogel, *Motherhood and Women's Earnings in Anglo-American, Continental European, and Nordic Countries*, *FEMINIST ECON.*, Apr. 2007, at 55, 76 (addressing cumulative disadvantages); Julie Holliday Wayne & Bryanne L. Cordiero, *Who is a Good Organizational Citizen? Perceptions of Male and Female Employees Who Use Family Leave*, 49 *SEX ROLES* 233, 240 (2003) (discussing family responsibility discrimination); Alison A. Reuter, Note, *Subtle but Pervasive: Discrimination Against Mothers and Pregnant Women in the Workplace*, 33 *FORDHAM URB. L.J.* 1369, 1372 (2006) (depicting discrimination claims based on family responsibility discrimination).

10. Sigle-Rushton & Waldfogel, *supra* note 9.

11. *Id.* at 76 tbl.1.

12. *Id.*

13. CRITTENDEN, *supra* note 9.

14. *Id.*

15. *Id.*

16. U.S. BUREAU OF LABOR STATISTICS, *supra* note 9.

17. *Id.* at § 6, chart 6-8.

18. *Id.* at § 6, chart 6-1.

Third, the motherhood penalty is significant because of the large proportion of women with children in the paid labor market. Approximately 71% of mothers with children under age eighteen work in the paid labor market, comprising about 38% of all women in the labor market.<sup>19</sup> Furthermore, evidence shows that this group of women account for the majority of the gender gap in pay.<sup>20</sup> This suggests that addressing the motherhood penalty could go a long way towards addressing the gender gap in pay.

Fourth, the motherhood penalty might have implications for discrimination against caregivers more broadly, also known as family responsibilities discrimination (FRD).<sup>21</sup> Research on the motherhood penalty is still relatively recent and tends to focus on women with young children.<sup>22</sup> However, lessons from this work might generalize to predict, and also identify potential solutions for, discrimination against those who care for elderly relatives, for example, or men who play a more active role in parenting. In fact, recent work suggests that while men do not experience a penalty for having children, they are penalized for using family leave to take care of their children.<sup>23</sup>

Finally, recent years have seen an increase in court cases addressing motherhood or FRD.<sup>24</sup> Compared to the decade 1986–1995, the decade 1996–2005 saw a 400% increase in the rate of FRD cases.<sup>25</sup> In total, over 585 such cases have been filed since 1971, with an average award of \$100,000 and a maximum award of \$25,000,000.<sup>26</sup> Plaintiffs won more than 50% of these cases.<sup>27</sup>

## I. THEORY AND EVIDENCE FOR THE MOTHERHOOD PENALTY

Having presented some of the disadvantages mothers experience in the workplace, we now review several social psychological theories about why these disadvantages emerge. This Article will then describe empirical studies that evaluate these theories. As we will show, these studies show a consistent pattern of discrimination against mothers across a range of samples, methods, and locations.

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19. *Id.* at § 6, chart 6-3; U.S. BUREAU OF LABOR STATISTICS, WOMEN IN THE LABOR FORCE, A DATABOOK tbl.5 (2006), available at <http://www.bls.gov/cps/wlf-table5-2006.pdf>.

20. Glass, *supra* note 9.

21. Still, *supra* note 9.

22. See, e.g., CRITTENDEN, *supra* note 9; Single-Rushton & Waldfogel, *supra* note 9.

23. Wayne & Cordiero, *supra* note 9, at 236, 240.

24. Reuter, *supra* note 9.

25. Still, *supra* note 9.

26. *Id.*

27. *Id.* at 13.

#### A. WHY MIGHT WE EXPECT MOTHERS TO EXPERIENCE BIAS AND DISCRIMINATION?

Drawing on a variety of theoretical perspectives, social scientists have explained how different cognitive processes could produce a motherhood penalty. These perspectives include status characteristics theory from sociology, the stereotype content model, the shifting standards model, and the lack of fit model from psychology.

##### 1. *Status Characteristics Theory*

Status characteristics theory proposes that stereotypes or cultural beliefs tend to associate greater worth or competence with members of some categories, such as men and white people, than with members of other categories, such as women and black people.<sup>28</sup> These “status beliefs” produce expectations about the relative performance capacity of members of those categories; high status individuals, such as men and white people, are assumed to display greater competence (and sometimes greater effort) than members of low status categories, such as women and black people.<sup>29</sup> As a consequence, the performances of high status individuals tend to be evaluated more positively than those of low status individuals, even when their performances are objectively equal.<sup>30</sup>

Additionally, the theory predicts that evaluators will hold low status individuals to stricter performance standards than high status individuals.<sup>31</sup> Because low status individuals are not expected to perform well, when they do, observers are less likely to believe that the performance is indicative of underlying ability.<sup>32</sup> As a result, performances of low status individuals are subjected to greater scrutiny than those of high status individuals.<sup>33</sup> In contrast, when high status individuals perform poorly, more effort is made to find redeeming

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28. Status characteristics theory is detailed, with a mathematically specified set of propositions and derivations supported by over three decades of research. We do not have the space in this Article to fully describe all aspects of the theory, so we present only a brief overview. For more information, see generally JOSEPH BERGER, *STATUS CHARACTERISTICS AND SOCIAL INTERACTION: AN EXPECTATION-STATES APPROACH* (1977), providing a general overview of status characteristics theory; James W. Balkwell, *From Expectations to Behavior: An Improved Postulate for Expectation States Theory*, 56 *AM. SOC. REV.* 355, (1991); Shelley J. Correll & Cecilia L. Ridgeway, *Expectation States Theory*, in *HANDBOOK OF SOCIAL PSYCHOLOGY* 29 (John Delameter ed., 2003); Cecilia L. Ridgeway & Shelley J. Correll, *Motherhood as a Status Characteristic*, 60 *J. SOC. ISSUES* 683 (2004); and Murray Webster, Jr. & Martha Foschi, *Overview of Status Generalization*, in *STATUS GENERALIZATION: NEW THEORY AND RESEARCH I* (Murray Webster, Jr. & Martha Foschi eds., 1988).

29. Ridgeway & Correll, *supra* note 28, at 684–85; Webster & Foschi, *supra* note 28, at 5–6; see also Martha Foschi, *Double Standards in the Evaluation of Men and Women*, 59 *SOC. PSYCHOL. Q.* 237, 237–38 (1996).

30. Foschi, *supra* note 29, at 239; Ridgeway & Correll, *supra* note 28, at 692.

31. See, e.g., Foschi *supra* note 29, at 238–39.

32. *Id.* at 239.

33. *Id.*

qualities in their performance than would be made for low status individuals.<sup>34</sup>

Recently, scholars have begun to apply status characteristics theory to motherhood.<sup>35</sup> Motherhood meets the criteria of a status characteristic because evidence suggests that mothers are perceived to be less competent in general than fathers or women without children.<sup>36</sup> They are also perceived to be less committed to work, likely because cultural beliefs about the ideal worker and the ideal mother conflict.<sup>37</sup> The ideal worker is expected to be unreservedly devoted to work, while the ideal mother is expected to invest similarly intense levels of devotion to her children.<sup>38</sup> As a result motherhood is perceived as incompatible with high levels of work effort.<sup>39</sup>

Researchers in status characteristics theory have viewed motherhood as a category analytically distinct from gender, namely as “primary caregiver for dependent children.”<sup>40</sup> This definition implies that men could also act as “mothers,” and might be disadvantaged in similar ways if they did so.<sup>41</sup> Little empirical research exists about men who are primary caregivers, but one study found that men were penalized for taking leave to care for their children, especially by other men.<sup>42</sup>

## 2. *The Stereotype Content Model*

The stereotype content model begins with the finding that group stereotypes can usually be described along two dimensions, competence and warmth.<sup>43</sup> Similar to status characteristics theory, high status societal groups are also assumed to be more competent.<sup>44</sup> Societal groups that have a cooperative relationship with dominant groups (e.g., wives with husbands) are rated as warmer than groups who are perceived to have competitive relationships with dominant groups (e.g., new immigrants with native-born citizens).<sup>45</sup>

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34. *See id.*

35. Shelley J. Correll, Stephen Benard, & In Paik, *Getting a Job: Is There a Motherhood Penalty?*, 112 AM. J. SOC. 1297, 1300 (2007); Ridgeway & Correll, *supra* note 28, at 684.

36. Correll, Benard, & Paik, *supra* note 35, at 1303; Ridgeway & Correll, *supra* note 28, at 697.

37. MARY BLAIR-LOY, *COMPETING DEVOTIONS: CAREER AND FAMILY AMONG WOMEN EXECUTIVES* 120 (2003).

38. *Id.* at 121.

39. *Id.* at 119–21.

40. Ridgeway & Correll, *supra* note 28, at 687.

41. *Id.* at 687–88.

42. Wayne & Cordeiro, *supra* note 9, at 240–41.

43. For a more detailed discussion of the stereotype content model as it relates to the motherhood penalty, see Cuddy et al., *supra* note 6, at 702–04.

44. *Id.* at 703.

45. *Cf. id.* at 705 (explaining the “condescending affection” exhibited towards homemakers and the “envious prejudice” exhibited towards women executives by dominant groups).

The model has important implications for working mothers. Psychological studies show that women tend to be categorized into a small number of stereotypical subtypes.<sup>46</sup> For example, women are often categorized either as “housewives,” who are seen as warm, but not competent, or “career women” who are viewed as competent, but not warm.<sup>47</sup> The model predicts that working mothers are caught between these two stereotypical designations. If they are viewed as more similar to the housewife stereotype, evaluators will view them as likeable, but not capable at work.<sup>48</sup> If, however, they are viewed as more similar to the career women stereotype, they will be viewed as competent, but not likeable.<sup>49</sup> Thus, the theory argues that working mothers are forced to make trade-offs between appearing competent and appearing likeable, a catch-22 that working fathers do not experience.<sup>50</sup>

### 3. *The Shifting Standards Model*

The shifting standards model provides insight into when stereotyped group members are judged by stricter standards, and when they are, instead, judged by more lenient standards than high status groups.<sup>51</sup> The theory posits that when evaluators use subjective evaluation criteria, they apply within-category standards when judging stereotyped groups on stereotyped traits (where stereotyped traits are any characteristic about which a stereotype for that group exists, such as competence in the case of female professionals).<sup>52</sup> For example, if asked to evaluate a female lawyer (a member of a stereotyped group) on her litigation skills (a stereotyped trait), evaluators will make this judgment relative to their expectations regarding the competence of female litigators specifically, rather than all litigators.<sup>53</sup> Because female litigators are generally stereotyped as less competent than male litigators, the woman being evaluated will be judged by a lower, more lenient standard.<sup>54</sup> As a result, subjective ratings of women on litigation ability will tend to be higher than those of men, because women are compared to stereotypical expectations for female litigators, while men are judged relative to

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46. *Id.*

47. *Id.* at 705–06.

48. *Id.* at 706–07.

49. *Id.*

50. *See id.* at 711–13.

51. Kathleen Fuegen et al., *Mothers and Fathers in the Workplace: How Gender and Parental Status Influence Judgments of Job-Related Competence*, 60 J. SOC. ISSUES 737, 738 (2004).

52. *Id.*

53. *Cf.* Monica Biernat, *Toward a Broader View of Social Stereotyping*, 58 AM. PSYCHOLOGIST 1019, 1019 (2003) (describing how shifting standards apply to the evaluation of women in leadership positions). For a qualitative case study of the bias faced by female litigators, see generally JENNIFER PIERCE, *GENDER TRIALS: EMOTIONAL LIVES IN CONTEMPORARY LAW FIRMS* (1995).

54. *Cf.* Biernat, *supra* note 53 (discussing how lower standards apply to review of women in leadership positions).

(higher) stereotypical expectations for male litigators.<sup>55</sup> The fact that ratings are subjective (i.e., not evaluated on a standard metric) disguises the fact that participants are evaluated according to different standards.<sup>56</sup>

However, this does not mean that women are advantaged relative to men in the overall evaluation of stereotyped traits. The “shift” in shifting standards theory occurs when individuals are evaluated according to the same metric; for example, when they are ranked rather than rated.<sup>57</sup> In this case, women are judged relative to stereotypical expectations for both men and women.<sup>58</sup> Similar to the double standards argument made by status characteristics theory, the shifting standards model predicts that, because women are stereotyped as less competent, they are held to stricter standards than men.<sup>59</sup> For example, when an evaluator is asked to choose the best litigator to hire for an open position, negative stereotypes about women’s competence in this field harm female litigators, and they are judged by a harsher standard.<sup>60</sup> As a result, men are more likely to benefit from bias when men and women are evaluated on a standard metric.<sup>61</sup> This theory can help explain the observation that women have an easier time making the “first cut” for a position or an award, but they have a harder time making the final cut and actually being hired or winning an award.<sup>62</sup>

The shifting standards model suggests that mothers are doubly disadvantaged by gender stereotypes.<sup>63</sup> First, they are disadvantaged at work, because stereotypes hinder their hiring, promotion, and other forms of career success.<sup>64</sup> Second, they are disadvantaged at home, because men are held to more lenient stereotypes about parenting behaviors.<sup>65</sup> Because lower levels of involvement with parenting are

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55. See PIERCE, *supra* note 53 at 114–16; *cf.* Biernat, *supra* note 53, at 1020, 1024–25 (discussing this phenomenon in the context of subjective evaluations of athleticism of men and women and in the abstract).

56. Biernat, *supra* note 53, at 1023.

57. *Id.* at 1021.

58. *Cf. id.* (describing the use of such stereotypes in situations of racial bias).

59. *Id.* at 1023; *see also* Monica Biernat & Diane D. Kobrynowicz, *Gender and Race-Based Standards of Competence: Lower Minimum Standards but Higher Ability Standards for Devalued Groups*, 72 J. PERS’LTY & SOC. PSYCHOL. 544, 545 (1997).

60. See Biernat, *supra* note 53, at 1023 (discussing the impact on women in stereotypically male professions, generally).

61. *Id.*

62. *Id.* For more discussion of this research, see generally Biernat and Kobrynowicz, *supra* note 59, discussing the shifting standards model in the context of race and gender, and Diane D. Kobrynowicz & Monica Biernat, *Decoding Subjective Evaluations: How Stereotypes Provide Shifting Standards*, 33 J. EXPMT’L SOC. PSYCHOL. 579 (1997), detailing three experimental studies focusing on shifting standards in the contexts of mothers and fathers, good parenting, and race-associated stereotypes of mathematical ability.

63. See Biernat, *supra* note 53, at 1023, 1025–26.

64. *Id.* at 1023, 1025; Biernat & Kobrynowicz, *supra* note 59, at 551.

65. Biernat, *supra* note 53, at 1026.

expected from men, they can exert less effort at parenting than women, yet be considered “better” parents, at least on subjective scales. As Risman’s study of American families suggests, wives often compare their husbands to other *men*, not other parents, and consequently report feeling “lucky” if their husband helps out with the children.<sup>66</sup>

#### 4. *The Lack of Fit Model*

The lack of fit model begins with the observation that there is little overlap between stereotypes about women and the stereotypical requirements of traditionally male jobs.<sup>67</sup> Women are stereotyped as warm, communal, and nurturing.<sup>68</sup> In contrast, male-typed jobs are thought to require agency, competitiveness, and assertiveness.<sup>69</sup> The theory claims that this perceived “lack of fit” between the traits necessary for male-typed jobs and the traits stereotypically associated with women, leads people to view women as ill-fitted for male-typed, or stereotypically male, jobs.<sup>70</sup> As most high status, high paying jobs are male-typed (e.g., doctors, lawyers, business executives), the theory helps explain why women, as a group, fare worse in the labor market than men.<sup>71</sup>

To offer an explanation for the motherhood penalty, the theory argues that mothers are seen as exemplars, or prototypes, of the female category.<sup>72</sup> In other words, people typify mothers as especially feminine, or as possessing particularly strong feminine characteristics. As a result, they tend to view mothers as an especially poor fit for male-typed jobs.<sup>73</sup> Thus, unlike status characteristics theory, the lack of fit model does not conceptualize motherhood as a trait independent of gender.<sup>74</sup> Instead, it views motherhood discrimination as a special case of gender discrimination.<sup>75</sup>

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66. See generally BARBARA J. RISMAN, *GENDER VERTIGO: AMERICAN FAMILIES IN TRANSITION* (1998) (looking empirically at several families, their parenting situations, housework and childcare distributions, etc., and discussing different reactions and expectations of wives and husbands). This issue has surfaced recently in the popular press. See, e.g., David Crary, *Men Who do Housework May Get More Sex*, S.F. CHRON., Mar. 6, 2008, available at <http://www.sfgate.com/cgi-bin/article.cgi?f=/n/a/2008/03/05/national/a210129S01.DTL>.

67. Madeline E. Heilman & Tyler G. Okimoto, *Motherhood: A Potential Source of Bias in Employment Decisions*, 93 J. APPLIED PSYCHOL. 189, 189–90 (2008). The lack of fit model is similar to role congruity theory, another psychological theory. See generally, Alice H. Eagly & Stephen J. Karau, *Role Congruity Theory of Prejudice Toward Female Leaders*, 109 PSYCHOL. REV. 573 (2002), for more information on role congruity theory.

68. Heilman & Okimoto, *supra* note 67, at 189.

69. *Id.* at 189–90.

70. *Id.* at 190.

71. See *id.*

72. *Id.* at 189.

73. *Id.* at 190.

74. *Id.* at 189.

75. *Id.*

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While the mechanisms proposed by each of these theories differ in some respects, they make largely similar predictions. In addition, they are not mutually exclusive. For example, it is possible that mothers experience discrimination both because caregiving is devalued (as status characteristics theory argues) and because mothers are seen as especially feminine (as the lack of fit model argues). Because the theories make converging predictions, and because differences in the theories must be resolved empirically, we will not attempt to choose among these theoretical perspectives. Instead, we will discuss evidence evaluating the theories' claim that discrimination against mothers exists.

B. WHAT EVIDENCE DO WE HAVE THAT MOTHERS EXPERIENCE DISCRIMINATION?

The motherhood wage penalty has been well established by analyses of nationally representative survey data.<sup>76</sup> While analyses of survey data show that mothers earn less than other kinds of workers, they cannot prove discrimination is the cause of the penalty.<sup>77</sup> This is because the motherhood wage penalty documented in survey analysis could logically arise because employers discriminate against mothers, because mothers are less productive at work than other types of workers, or some combination of these two processes.<sup>78</sup> In order to distinguish between these possibilities, it is necessary to compare how people evaluate equally productive individuals who differ only on parental status.<sup>79</sup> However, analyses of survey data cannot fully statistically control for productivity. For example, it is possible to ask survey respondents how many hours they work per week, but it is not possible to accurately measure the amount of effort they are exerting during those hours.<sup>80</sup>

Experimental studies provide a solution to this problem. There are numerous ways to use experimental methods to test whether mothers experience discrimination, but most studies tend to share the same basic components. Researchers typically ask a sample of people to evaluate individuals in a work-like setting.<sup>81</sup> This can include rating resumes, watching a video of a job interview, or role-playing a meeting, among other possibilities.<sup>82</sup> The individuals or situations that the participants evaluate are typically fictional, created by the experimenter to ensure

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76. See sources cited *supra* note 1.

77. Budig & England, *supra* note 1.

78. *Id.*

79. See *id.* at 207.

80. See *id.* at 220.

81. See, e.g., Jane A. Halpert et al., *Pregnancy as a Source of Bias in Performance Appraisals*, 14 J. ORG'L BEHAV. 649, 652-53 (1993) (detailing two experiments, one in which subjects responded to questionnaires about pregnant women in the workplace and a second in which subjects responded to videos of pregnant and nonpregnant employees).

82. E.g., *id.* (examples of these experimental methods).

that all individuals rated are equally qualified and productive.<sup>83</sup> The researcher then systematically varies the parental status of the individual being rated.<sup>84</sup> If an otherwise identical job applicant is evaluated as worthy of hire when presented as a childless woman, but not worthy of hire when presented as a mother, this discrepancy provides strong evidence of discrimination.<sup>85</sup> For this reason, our discussion of the evidence for discrimination against mothers will focus on experimental studies.

Experimental tests of the motherhood penalty examine discrimination against both pregnant women and mothers of young children. We first examine studies of pregnancy discrimination. In general, research has found that people, especially men, tend to hold negative stereotypes about pregnant women.<sup>86</sup> These stereotypes likely drive the discriminatory behavior towards pregnant women discussed below.

### *I. Pregnancy Discrimination*

In the earliest experimental pregnancy discrimination study, MBA students engaged in role-plays of a business meeting with two female “managers.”<sup>87</sup> In actuality, and unbeknownst to the participants, the managers were women trained by the researcher to enact a script.<sup>88</sup> One manager wore clothing that made her appear to be pregnant, while the other did not.<sup>89</sup> The managers were trained to behave as similarly as possible, and also alternated playing the role of the pregnant manager, to ensure that any differences in their behavior were not correlated with the pregnancy manipulation.<sup>90</sup> The study found that participants reacted more negatively towards the pregnant manager than the nonpregnant manager, viewing her as less fair and reporting greater dissatisfaction with their interaction.<sup>91</sup> When the researchers inquired further to determine why participants reacted in this way, they found that participants expected the pregnant manager to be “nonauthoritarian,

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83. *E.g., id.* at 653.

84. *E.g., id.*

85. *E.g., id.* This is the same logic and methodology that underlies the housing audits conducted by the U.S. Department of Housing and Urban Development to assess racial discrimination on the part of real estate brokers. *See also* NATIONAL RESEARCH COUNCIL, *MEASURING RACIAL DISCRIMINATION* 6–9, 72–75 (Rebecca M. Blank et al. eds., 2004).

86. Halpert et al., *supra* note 81, at 655 (discussing the results of one experiment in which men, to a much greater extent than women, gave lower ratings to the performance of pregnant employees as compared to nonpregnant employees when all other details were held constant).

87. Sara J. Corse, *Pregnant Managers and Their Subordinates: The Effects of Gender Expectations on Hierarchical Relationships*, 26 *J. APPLIED BEHAV. SCI.* 25, 31–32 (1990).

88. *Id.* at 33.

89. *Id.*

90. *Id.* at 32–33.

91. *Id.* at 37.

easy to negotiate with, gentle, . . . and nice.”<sup>92</sup> Apparently, her assertive, managerial behavior violated their expectations, probably provoking this more negative response.<sup>93</sup>

A later study asked participants to watch a video in which a woman engaged in a variety of work-related tasks.<sup>94</sup> Half of the participants watched a video in which the woman appeared to be pregnant, and the other half watched a video in which she did not appear to be pregnant.<sup>95</sup> The actor and script were identical in both videos.<sup>96</sup> The actor’s work performance was rated more negatively when she appeared to be pregnant than when she did not.<sup>97</sup> The researchers then conducted a follow-up study in which they interviewed working mothers about reactions to their pregnancy from co-workers.<sup>98</sup> The results supported the experimental studies’ conclusion that women experience negative reactions in the workplace when they become pregnant.<sup>99</sup> The researchers found that 38% reported intrusive personal comments, such as attributing their behaviors to hormones.<sup>100</sup> In addition, 28% reported negative reactions from peers, and 12% reported open discrimination (including being fired).<sup>101</sup> Among women who were supervisors, “48% reported that their subordinates became upset or hostile” when they became pregnant.<sup>102</sup>

A study by Bragger and colleagues used a videotape methodology to show that pregnant job candidates are significantly less likely to be hired than their nonpregnant counterparts.<sup>103</sup> This study asked participants to watch video footage of a job interview and assume the role of human resources professional.<sup>104</sup> Each participant watched one of eight scenarios, which varied by type of job (either teacher or insurance salesperson), whether or not the job applicant was pregnant, and whether the interview was structured (using a job criteria list and decision-making

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92. *Id.* at 39.

93. *Id.* at 39–40.

94. Halpert et al., *supra* note 81, at 653.

95. *Id.* at 654.

96. *Id.* at 653.

97. *Id.* at 655.

98. Jane A. Halpert & Julia Hickman Burg, *Mixed Messages: Co-Worker Responses to the Pregnant Employee*, 12 J. BUS. & PSYCHOL. 241, 245 (1997).

99. *See id.* at 244–48 (analyzing results of the study and finding that while many women did experience positive responses at least from some co-workers and supervisors, negative results and discrimination were also prevalent).

100. *Id.* at 246.

101. *Id.* at 246, 248.

102. *Id.* at 246.

103. Jennifer DeNicholis Bragger et al., *The Effects of the Structured Interview on Reducing Biases Against Pregnant Job Applicants*, 46 SEX ROLES 215, 220, 223 (2002).

104. *Id.* at 221.

aid) or unstructured.<sup>105</sup> The same actor was used in all eight videos, and the same information was disclosed across interview videos (whether structured or unstructured), depending on the job.<sup>106</sup> Each participant was provided with a job description, and after viewing the video, completed a survey concerning hiring and salary recommendations.<sup>107</sup> Pregnancy had a significant impact on hiring recommendations, resulting in pregnant candidates being viewed as less qualified for hire.<sup>108</sup>

This study motivated a follow-up study by Cunningham and Macan.<sup>109</sup> They noted that the Bragger study asked participants to rate the extent to which a candidate was “qualified . . . to be hired.”<sup>110</sup> Cunningham and Macan reasoned that whether an applicant is qualified and whether the applicant should be hired represent distinct judgments.<sup>111</sup> Their study used a video methodology, similar to that of the Bragger study, in which participants viewed either a pregnant or nonpregnant woman interviewing for a computer programmer position.<sup>112</sup> They asked participants to separately rate the applicants’ qualifications and whether they should be hired.<sup>113</sup> They found that participants rated pregnant and nonpregnant women as equally qualified, but were significantly less likely to recommend the pregnant candidate for hire.<sup>114</sup> The pregnant candidate was also rated lower on several measures of work commitment, including expected likelihood of quitting or requesting leave.<sup>115</sup>

An Australian study by Masser, Grass, and Nestic showed that pregnant job candidates are rated as significantly less hireable than their nonpregnant counterparts, despite being rated higher on several dimensions.<sup>116</sup> In their study, participants were asked to review a job candidate file that included a resume, a photo which depicted either a pregnant or nonpregnant candidate, references, and job details, which described a temporary three-month position “either as a newspaper journalist (feminine type position) or newspaper editor (masculine type position).”<sup>117</sup> Participants were then asked to provide their impressions of

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105. *Id.* at 220–21.

106. *Id.* at 220.

107. *Id.* at 221.

108. *Id.* at 223.

109. Jennifer Cunningham & Therese Macan, *The Effects of Applicant Pregnancy on Hiring Decisions and Interview Ratings*, 57 *SEX ROLES* 497, 498–99 (2007).

110. *Id.* at 498.

111. *Id.*

112. *Id.* at 501.

113. *Id.*

114. *Id.* at 503–04.

115. *Id.*

116. Barbara Masser et al., ‘We Like You, But We Don’t Want You’—*The Impact of Pregnancy in the Workplace*, 57 *SEX ROLES* 703, 708–09 (2007).

117. *Id.* at 707.

the competency and warmth of the candidate and to make hiring and salary recommendations.<sup>118</sup> While participants rated pregnant women as more competent and warmer than nonpregnant women, they were less likely to recommend them for hire; and in the case of the masculine type job position, pregnant job candidates were recommended a salary that was significantly lower than the salary recommended for their nonpregnant counterparts.<sup>119</sup>

Notably, in the Cunningham and Masser studies, evaluators penalized pregnant job candidates in hiring decisions, despite rating them equally or more favorably on other dimensions.<sup>120</sup> In this case, the shifting standards model of stereotypes explains how pregnant candidates can be rated as highly competent yet less hireable than nonpregnant candidates. The theory predicts that when raters evaluate pregnant candidates' competency and warmth, they compare them with other pregnant women.<sup>121</sup> However, when making hiring decisions, pregnant women are compared to all other types of candidates (e.g., men, nonpregnant women); thereby leading to bias against pregnant candidates in hiring decisions.<sup>122</sup>

## 2. *Motherhood Discrimination*

While pregnancy might be more obvious in the workplace than motherhood, research finds that mothers also experience discrimination.<sup>123</sup> For example, one study asked participants to evaluate profiles of management consultants who differed on gender and parental status.<sup>124</sup> The researchers found that simply adding a sentence to a female consultant's profile describing her as a mother led her to be rated as less competent, but warmer, compared with an otherwise identical profile that did not contain information about parental status.<sup>125</sup> This divergence in competence and warmth rankings is consistent with the results predicted by the stereotype content model.<sup>126</sup> Evaluators were also less likely to recommend the mother for promotion or management training.<sup>127</sup> Adding a similar sentence about being a parent to a profile of a male consultant did not affect his evaluations.<sup>128</sup> In terms of

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118. *Id.* at 707–08.

119. *Id.* at 708–09.

120. *Id.*; Cunningham & Macan, *supra* note 109, at 501–02. The studies described control for job characteristics across condition, so there were no reasons to think the pregnant women were less qualified for the job described.

121. Masser et al., *supra* note 116, at 710.

122. *Id.* at 710–12.

123. *See, e.g.*, Cuddy et al., *supra* note 6, at 702.

124. *Id.* at 707–08.

125. *Id.* at 709, 711.

126. *Id.* at 712; *see also* discussion *supra* Part I.A.2.

127. Cuddy et al., *supra* note 6, at 711–12.

128. *See id.* at 710, 712 (finding that working men with children were perceived as warmer than

recommended career outcomes, warmth ratings did not affect evaluators' recommendations, but higher competence ratings did lead to more positive recommendations.<sup>129</sup> Therefore, mothers did not benefit from being viewed as warmer, but they were penalized for being viewed as less competent.<sup>130</sup>

In another study, researchers asked participants to evaluate a candidate for an entry-level attorney position.<sup>131</sup> The candidates were either fathers, men without children, mothers, or women without children.<sup>132</sup> Mothers were less likely to be hired than women without children, but men were not penalized for being fathers.<sup>133</sup> In fact, unlike women, men were held to more lenient job performance and work commitment standards when they gave evidence of having children.<sup>134</sup> This finding that fathers are held to lower standards than mothers supports the status characteristics theory prediction that members of high status groups benefit from a double standard.<sup>135</sup>

One potential criticism of the experimental studies presented is that many use undergraduate students as evaluators, who may make different judgments than professional managers and others who make hiring decisions.<sup>136</sup> On the one hand, some might expect that college students would be more likely than managers to rely on stereotypes due to their lack of experience with hiring decisions.<sup>137</sup> If so, studies with college student samples would overestimate the magnitude of the motherhood penalty. On the other hand, if college students hold more egalitarian gender beliefs than managers, studies relying on an undergraduate sample might underestimate the penalty. Existing data suggest there is little cause for concern.<sup>138</sup> Prior research on the validity of undergraduate

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working men without children, but that their competence was not affected nor were their recommendations for promotion, etc.).

129. *Id.* at 711.

130. *Id.*

131. Fuegen et al., *supra* note 51, at 741.

132. *Id.* at 742.

133. *Id.* at 746.

134. *Id.* at 748.

135. See discussion *supra* Part I.A.1.

136. See, e.g., Fuegen et al., *supra* note 51, at 751.

137. See *id.*

138. See, e.g., Jeanette N. Cleveland & Andrew H. Berman, *Age Perceptions of Jobs: Agreement Between Samples of Students and Managers*, 61 *PSYCHOL. REP.* 565, 566 (1987) (finding that ratings of job candidates by managers are consistent with those of undergraduates); Jeanette N. Cleveland, *Using Hypothetical and Actual Applicants in Assessing Person-Organization Fit: A Methodological Note*, 21 *J. APPLIED SOC. PSYCHOL.*, 1004, 1004 (1991) (showing that evaluators tend to rate applicants similarly whether they are real or hypothetical); see also Judy D. Olian & Donald P. Schwab, *The Impact of Applicant Gender Compared to Qualifications on Hiring Recommendations: A Meta-Analysis of Experimental Studies*, 41 *ORG'L BEHAV. & HUM. DEC. PROC'S* 180, 180 (1988) (a meta analysis finding no significant differences between student and manager samples in the effect of applicant gender on evaluations).

samples, while not specifically directed at how mothers are evaluated, found that undergraduates and managers tend to rate applicants in very similar ways.<sup>139</sup>

To evaluate whether undergraduate and manager samples produce similar results as far as the motherhood penalty is concerned, we conducted a study that paired a laboratory experiment from an undergraduate sample with an audit study of actual companies.<sup>140</sup> The laboratory study allowed the hypotheses about the motherhood penalty to be collected in a highly controlled setting with many measures of discrimination.<sup>141</sup> The audit study allowed only a single measure of discrimination (described below), but provided data on actual companies.<sup>142</sup>

In the laboratory study, participants rated a pair of same-gender, same-race applicants, who differed on parental status, for an upper-level marketing position.<sup>143</sup> The applicants were paired by race and gender, so participants evaluated one parent and one nonparent, who were both white men, white women, African American men, or African American women.<sup>144</sup> The applications were pre-tested to ensure that raters perceived them to be of equivalent quality.<sup>145</sup> Furthermore, the applications were counterbalanced on parental status.<sup>146</sup>

The laboratory study found that mothers were disadvantaged on a broad range of measures.<sup>147</sup> Compared with equally qualified childless women, mothers were viewed as less competent and committed to paid work, and were less likely to be recommended for promotion, management training, and hire.<sup>148</sup> The hiring gap was especially large: 84% of participants recommended the nonmother for hire, while only 47% of participants recommended the mother for hire.<sup>149</sup> Participants also recommended salaries \$11,000 lower, on average, for mothers than for childless women.<sup>150</sup> Furthermore, mothers were held to higher standards than other types of applicants. They were held to stricter punctuality standards and were required to have higher scores on a test

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139. See sources cited *supra* note 138.

140. Correll, Benard, & Paik, *supra* note 35, at 1298.

141. *Id.* at 1309–10.

142. *Id.* at 1310.

143. *Id.* at 1309–10.

144. *Id.* at 1309.

145. *Id.* at 1312.

146. *Id.* “Counterbalancing” means that half the time one of the two applicants was presented as a parent, and half the time the other applicant was presented as a parent. This ensures that any differences in the resumes are uncorrelated with the parental status manipulation.

147. *Id.* at 1315–16.

148. *Id.* at 1316.

149. *Id.*

150. *Id.*

that was supposedly diagnostic of management ability before being judged as hireable.<sup>151</sup>

In contrast, men were not disadvantaged by parental status and, in fact, benefited from fatherhood on a number of measures.<sup>152</sup> Relative to men without children, fathers were perceived to be more committed to their jobs, were held to more lenient punctuality standards, were more likely to be recommended for promotion and management training, and were offered higher salaries.<sup>153</sup> The latter finding suggests that the now-illegal “family wage” premium once paid to fathers may be alive and well, at least informally.<sup>154</sup>

The analyses further showed that perceived competence and commitment explained a substantial portion of the motherhood penalty.<sup>155</sup> That is, mothers were discriminated against in hiring, promotion, and other organizational rewards in part because they were perceived to be less competent and less committed than other workers.<sup>156</sup> The laboratory study thus provides evidence of one mechanism by which mothers are discriminated against.

The laboratory study allows us to measure many aspects of the evaluator’s decision-making process (e.g. competence and commitment ratings, evaluations standards, and final evaluations), creating a detailed picture of the kinds of discrimination mothers face. However, it does not tell us whether mothers experience discrimination when they apply for jobs at actual companies.<sup>157</sup> To address this question, we conducted an audit study in which we sent pairs of applications differing on parental status to 638 companies over an eighteen-month period.<sup>158</sup> The applications were based on those used in the laboratory study, and the jobs to which they were sent were similar to the marketing position in the laboratory study.<sup>159</sup> We then monitored whether parental status influenced the likelihood of receiving a callback from an employer.<sup>160</sup> While there were no significant effects for fatherhood, childless women were 2.1 times more likely to be called backed than equally qualified

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151. *Id.*

152. *Id.* at 1317.

153. *Id.*

154. See Ann Orloff, *Gender and the Welfare State*, 22 ANN. REV. SOC. 51, 53 (1996) (discussing how the family wage system contributes to social reproduction of gender inequality by justifying “men’s relatively superior wages” in terms of support of “dependent wives and children”).

155. Correll, Benard, & Paik, *supra* note 35, at 1317–18.

156. *Id.*

157. *Id.* at 1327.

158. *Id.* at 1327–28.

159. *Id.* at 1328.

160. *Id.* at 1328–29. Parental status was subtly manipulated in two ways. The resumes listed either participations in a parent-teacher organization or a different organization that did not signal parental status. In addition, the cover letter indicated that the applicant was relocating with his or her family, or did not mention family and stated only that the applicant was relocating. *Id.*

women with children.<sup>161</sup> This effect is of similar magnitude to that found in the laboratory study, in which childless women were 1.8 times more likely than mothers to be recommended for hire.<sup>162</sup>

Even more recent studies have continued to document discrimination against mothers. One set of experiments asked two samples of evaluators—one sample of undergraduates and one sample of working people—to evaluate employees ostensibly being considered for an internal promotion.<sup>163</sup> The candidates differed on gender and parental status.<sup>164</sup> The researchers found that parents were generally rated as less committed and dependable than nonparents.<sup>165</sup> However, mothers, but not fathers, were rated as less competent than other kinds of workers.<sup>166</sup> Importantly, participants relied on their competence ratings when making recommendations for promotion, which placed mothers at a disadvantage.<sup>167</sup> Commitment and dependability ratings, by contrast, did not influence their recommendations.<sup>168</sup>

Current work by Koropecykj-Cox, Romano, and Cody-Rydzewski considers parental stereotypes outside the context of the workplace, and confirms both the persistence of negative biases against childless adults and the perception of mothers as less career oriented, success oriented, and reliable than childless women.<sup>169</sup> College student participants were presented with one of thirty-six vignettes describing a married couple in their mid-to-late thirties.<sup>170</sup> The vignettes varied on the following four dimensions: parental status (the couple either had two children, no children, or no children and no intent to have children in the future), race (the couple was either black or white), occupation of husband (stockbroker or construction worker), and occupation of wife (lawyer, secretary, or nursing assistant).<sup>171</sup> After reading a vignette, participants were asked to provide their impressions of the couple and of the husband and wife individually.<sup>172</sup>

Overall, parents were rated warmer and more likeable than childless couples, with mothers experiencing a greater boost in warmth than

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161. *Id.* at 1330.

162. *Id.*

163. Heilman & Okimoto, *supra* note 67, at 190–91, 193.

164. *Id.* at 191.

165. *Id.* at 193, 196.

166. *Id.*

167. *Id.*

168. *Id.*

169. Tanya Koropecykj-Cox et al., Biases, Premiums, and Penalties: Students' Perceptions of Parents and Childless/Childfree Couples 16–19 (2008) (unpublished manuscript under review, on file with authors).

170. *Id.* at 10, 13–14.

171. *Id.* at 13–14.

172. *Id.* at 14–15.

fathers.<sup>173</sup> Warmth ratings for women were related to parental status and intentions of having children: mothers were rated warmest, followed by childless wives, and then childless wives who had no intention of having children.<sup>174</sup> Warmth ratings showed a similar pattern for men, but differences in warmth ratings were significant only between fathers and husbands with no intention of having children.<sup>175</sup> Mothers were rated as less career oriented, success oriented, and reliable than childless women, while ratings of work-related characteristics for men were unaffected by parenthood.<sup>176</sup> These findings underscore the persistence of, and tension between, gendered cultural beliefs surrounding work and family.

## II. OTHER FACTORS AFFECTING THE PENALTY: RACE AND SEXUAL ORIENTATION

The joint effects of motherhood, race, and sexual orientation have recently begun to be explored, and studies illustrate the unique stereotypes created by intersecting (e.g., gender, sexual, and racial) identities. Stereotypical images of families continue to be most closely associated with a married couple consisting of a male breadwinner and a woman assuming most of the childcare duties and household labor.<sup>177</sup> The racial and sexual assumptions implicit in this image are revealed when outcomes for lesbian mothers and women of color are examined.

The work of Peplau and Fingerhut shows that while heterosexual mothers are considered less competent and committed to work than their childless counterparts, evaluations of lesbian workers' competency and commitment to work remain unaffected by motherhood.<sup>178</sup> Stereotypes of mothers are shown to diverge when sexual orientation is considered.<sup>179</sup> Building on the work of Cuddy, Fiske, and Glick,<sup>180</sup> Peplau and Fingerhut asked heterosexual participants to read descriptions of two consultants varying by gender, sexual orientation, and parental status, and rate them on warmth, competence, family orientation, and career orientation.<sup>181</sup>

Results showed that while heterosexual mothers are rated as less competent and career-oriented than childless heterosexual women, lesbians do not experience any change in perceived competence or work-

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173. *Id.* at 16.

174. *Id.* at 18.

175. *Id.* at 18–19.

176. *Id.* Interestingly, only childless women—and not childless women without any intention of having children—were found to be more reliable than mothers. *See id.* at 18 tbl.3.

177. *See* TERESA L. AMOTT & JULIE A. MATTHAEI, RACE, GENDER, AND WORK: A MULTICULTURAL ECONOMIC HISTORY OF THE WOMEN IN THE UNITED STATES 13–17 (1996).

178. Letitia Anne Peplau & Adam Fingerhut, *The Paradox of the Lesbian Worker*, 60 J. Soc. ISSUES 719, 730–31 (2004).

179. *Id.* at 732.

180. *See* Cuddy et al., *supra* note 6.

181. Peplau & Fingerhut, *supra* note 178, at 728–29.

orientation due to motherhood.<sup>182</sup> All consultants gained higher ratings on warmth and family orientation when described as parents.<sup>183</sup> Furthermore, heterosexual men were rated as more career oriented when presented as fathers.<sup>184</sup>

The intersection of motherhood and race results in differential evaluations of and outcomes for white, black, and Hispanic mothers.<sup>185</sup> Glauber's examination of wage data shows significant differences by race in the motherhood wage penalty.<sup>186</sup> While white mothers experience a significant wage penalty per child, black mothers experience a smaller penalty, and Hispanic women experience none, whether married, divorced, or single.<sup>187</sup> One possible explanation for this comes from current research on race and motherhood, which shows that while white stay-at-home mothers are viewed more favorably than white working mothers, the evaluations reverse for black women, with black working mothers viewed more positively than black stay-at-home mothers.<sup>188</sup> Stereotypes characterizing black women as single mothers having to work in order to support their families may contribute to these racially divergent evaluations of motherhood.<sup>189</sup> In fact, "[m]otherhood and paid work have not been constructed as mutually exclusive" for black women.<sup>190</sup>

In addition, recent work by Koropecyj-Cox, Romano, and Cody-Rydzewski illustrates how race and fatherhood intersect to create significantly different evaluations of white and black fathers. Black fathers were viewed as much warmer and happier than childless black men, while white men's perceived warmth was unaffected by fatherhood.<sup>191</sup> In this way, fatherhood may soften the pervasive negative stereotypes of black men.

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182. *Id.* at 730–31.

183. *Id.* at 730.

184. *Id.* at 731.

185. *See, e.g.*, Rebecca Glauber, *Marriage and the Motherhood Wage Penalty Among African Americans, Hispanics, and Whites*, 69 J. MARRIAGE & FAM. 951, 951 (2007).

186. *Id.* at 955–57.

187. *Id.*

188. *See generally* Amy J.C. Cuddy & C.M. Frantz, *Race, Work Status, and the Maternal Wall* (May 3, 2007) (unpublished paper presented at *Gender Roles: Current Challenges*, an invited symposium conducted at the 79th annual meeting of the Midwestern Psychological Association in Chicago, Ill.) (on file with authors) (exploring differences in perceptions of white and black working and stay-at-home mothers).

189. *See* Ivy Kennelly, *That Single Mother Element: How White Employers Typify Black Women*, 13 GENDER & SOC'Y, 168, 182 (1999) (discussing different stereotypes of black working mothers).

190. Glauber, *supra* note 185, at 958.

191. Koropecyj-Cox et al., *supra* note 169, at 16–17.

### III. HOW CAN THE MOTHERHOOD PENALTY BE REDUCED?

The extensive evidence for the existence of discrimination against mothers raises the question of how the motherhood penalty might be reduced or eliminated. In this Part, we discuss several possible remedies, including family-friendly work policies, using structured (rather than open) interviews, increasing accountability, and structuring diverse hiring committees. While some research has examined the conditions under which these remedies are effective, this is an area where more research is needed.

One possible way to reduce the motherhood penalty is by increasing the availability of family-friendly policies in the workplace and ensuring that employees are able to use these policies without penalty. Family-friendly policies include practices such as flextime, telecommuting, part-time schedules, and childcare assistance.<sup>192</sup> These practices should make it easier for working parents to balance their personal and professional lives.<sup>193</sup> However, some evidence suggests that using such policies may backfire. One study found that mothers who use family-friendly policies experience a wage penalty relative to those who do not.<sup>194</sup> The study also found that the penalty could be reduced when mothers switch jobs.<sup>195</sup> This suggests that part of the penalty comes not simply because a mother used a family-friendly policy, but because others *know* that she used the policy. In other words, bias towards policy users may play a role in generating the penalty. Consistent with this idea, in their experimental study, Allen and Russell found that employees who took family leave, regardless of their gender, were rated as less committed to work.<sup>196</sup> If family-friendly policies are to be effective in helping workers balance their work and family lives, organizations need to find a way to ensure that employees are able to use the policies without penalty.

A second strategy for reducing the motherhood penalty is for organizations to use clearly specified criteria when making hiring, promotion, and performance evaluation decisions. In support of this idea, one recent study found that the use of unstructured interviews—a common component in the hiring process—results in greater bias, variance, and inconsistency across raters than when using structured interviews.<sup>197</sup> Significant differences emerged between the ratings of pregnant and nonpregnant job candidates when using unstructured

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192. Glass, *supra* note 9, at 367.

193. *Id.* at 367–68.

194. *Id.* at 387–88.

195. *Id.* at 388. However, the study also pointed out that changing jobs did carry its own costs as workers lost benefits associated with seniority when changing employers. *Id.* at 383.

196. Tammy D. Allen & Joyce E.A. Russell, *Parental Leave of Absence: Some Not So Family-Friendly Implications*, 29 J. APPLIED SOC. PSYCHOL. 166, 185 (1999).

197. Bragger et al., *supra* note 103, at 218, 223.

interviews, while no significant differences emerged in the structured interview conditions.<sup>198</sup> These results suggest that evaluators (or employers) are more vulnerable to cognitive and perceptual biases in an unstructured interview setting.

While unstructured interviews are commonly utilized to evaluate a job candidate's fit with the hiring organization, they establish no boundaries for the types of questions asked by interviewers, thereby providing no set criteria shared by all interviewers.<sup>199</sup> Different question types and formats across candidates result in the "predictive deficiency" reported in studies of unstructured interviews.<sup>200</sup> Even though interviewers believe that unstructured interviews help them assess the potential fit of an individual in the organization, Hunter and Hunter showed that "less than 2% of the variance [in] job performance could be predicted by . . . job interview[s]."<sup>201</sup> Providing guidelines for interviewers—including evaluation criteria based on the job description and organizational culture and a set of standard interview questions—was shown to increase objectivity and consistency across evaluators and promote the "separation of stereotypical judgments from business necessity issues."<sup>202</sup>

Another possible route to reducing the motherhood penalty is increasing accountability in hiring practices. Research has shown that when individuals are required to explain their decisions to a third party, they engage in more complex cognitive processing and are less likely to allow first impressions to distort their assessments.<sup>203</sup> This effect occurs when one is unsure of the third party's views (being aware of the third party's views tends to promote conformity), and when the third party is viewed as legitimate, knowledgeable, process oriented, and valuing accuracy.<sup>204</sup>

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198. *Id.* at 222.

199. *Id.* at 217.

200. *Id.*

201. *Id.* (discussing John E. Hunter & Ronda F. Hunter, *Validity and Utility of Alternative Predictors of Job Performance*, 96 PSYCHOL. BULL. 72 (1984)); see also Hunter & Hunter *supra*, at 86 tbl.8.

202. Bragger et al., *supra* note 103, at 219.

203. Phillip E. Tetlock, *Accountability and Complexity of Thought*, 45 J. PERS'LTY & SOC. PSYCHOL. 74, 81 (1983) (finding that individuals held accountable engage in more "integratively complex" thought but "only when subjects do not have the lazy option of expressing views that they are confident will gain the approval of the person to whom they feel accountable"); Philip E. Tetlock, *Accountability and the Perseverance of First Impressions*, 46 Soc. PSYCHOL. Q. 285, 289 (1983) (discussing a study on accountability and perceptions of guilt and finding "accountability prior to reading the evidence would eliminate the perseverance of initial impressions of guilt").

204. Jennifer S. Lerner & Philip E. Tetlock, *Accounting for the Effects of Accountability*, 125 PSYCHOL. BULL. 255, 259 (1999) (noting that accountability must be "predecisional" in order to have these effects).

One important consequence of the increased cognitive processing associated with accountability is that it may reduce discrimination. To the extent that stereotyping is implicit, increasing cognitive processing may help evaluators avoid unwanted bias.<sup>205</sup> A study by Foschi showed that people tend to hold women to a stricter standard of task performance than men when accountability is low, but a moderate level of accountability removes this double standard.<sup>206</sup> In this study, moderate accountability consisted of writing one's name on an evaluation form and explaining one's evaluation to a peer.<sup>207</sup> While reasonably low levels of accountability were sufficient to eliminate the gender-based double standard in the highly controlled setting of the laboratory, it is likely that accountability in organizations would require a higher level of vigilance due to the greater complexity of actual workplaces. Nonetheless, the research on accountability and bias suggest that accountability is a potentially effective strategy for reducing cognitive biases.<sup>208</sup>

Increasing the diversity of hiring committees may have similar effects to increasing accountability. Here, diversity can include virtually any dimension that differentiates committee members.<sup>209</sup> In the case of academic committees, for example, diversity could include individuals from different departments.<sup>210</sup> Research shows that when individuals interact with someone who differs from them (e.g., the person comes from a different academic department), they assume that this different person will also hold different attitudes and perspectives from their own.<sup>211</sup> As a result, they become more engaged in the decision making process, spending more time discussing their opinions and sharing more information relevant to the decision.<sup>212</sup> When committees are homogeneous, members assume that they have more shared knowledge, and perceive less need to explain their opinions to their peers.<sup>213</sup> While this research has not specifically examined the effects of diversity on reducing cognitive bias, since diversity has been shown to facilitate

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205. See, e.g., Foschi, *supra* note 29, at 247.

206. *Id.* at 250.

207. *Id.* at 248.

208. *But see* Lerner & Tetlock, *supra* note 204, at 270 (cautioning that while accountability is useful, it is not a "social panacea," and that only specific *types* of accountability will actually help to remove bias and inconsistency from results).

209. See, e.g., Katherine W. Phillips, *The Effects of Categorically Based Expectations on Minority Influence: The Importance of Congruence*, 29 *PERS'LTY & SOC. PSYCHOL. BULL.* 3, 5 (2003) (detailing one study in which the *diversity* being tested was that of an MBA student, an MBA, and a medical student).

210. *See id.*

211. *Id.* at 4.

212. *Id.* at 10; Katherine W. Phillips & Denise Lewin Loyd, *When Surface and Deep-Level Diversity Collide: The Effects on Dissenting Group Members*, 99 *ORG'L BEHAV. & HUM. DEC. PROC'S* 143, 157 (2006).

213. Phillips & Loyd, *supra* note 212.

sharing of differing perspectives, it is likely that diverse groups will be less likely to rely on stereotypical assumptions when making hiring and promotion decisions.

In sum, there are several potential strategies for reducing the bias that mothers experience in the workplace. Future research should examine the effectiveness of these strategies in the specific case of bias against mothers, as we describe below.

#### IV. WHAT DO WE STILL NEED TO KNOW ABOUT THE MOTHERHOOD PENALTY?

While evidence for cognitive bias towards mothers is robust, there is still much to discover about how bias towards mothers operates, and whether it can be reduced. Some especially pressing areas for future research include understanding (1) what policies will effectively reduce the penalty; (2) when and how race influences the penalty; (3) when men are advantaged or disadvantaged by fatherhood; (4) whether the type of biases mothers experience extends more broadly to those who have family responsibilities; (5) the role of normative or prescriptive bias towards mothers; and (6) the extent to which the motherhood penalty is implicit, explicit, or both.

Most work on the motherhood penalty has focused on testing whether cognitive bias exists, and if so, the mechanism by which it operates. Now that the existence of bias has been established, there is a need for further research to address how bias can be reduced. There are some promising developments on this front, such as the research on structured interviews discussed above.<sup>214</sup> The research on accountability and diverse hiring committees has not been examined in the context of the motherhood penalty, but theory and prior empirical evidence suggest that these approaches might also provide useful interventions. More problematic is the research showing a wage penalty for mothers who use family-friendly policies.<sup>215</sup> It is possible that the use of these policies is stigmatized in the workplace. Indeed, research finds that, rather than being made available to all employees, the use of family-friendly policies are informally reserved as rewards for high performers.<sup>216</sup> This suggests that employers are wary of the use of these policies and would prefer that they not be used widely. Research addressing perceptions of policy users, and how the use of such policies might be made more acceptable, could have a positive effect on reducing the motherhood penalty. Furthermore, as policymakers turn their attention to the motherhood

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214. See generally Bragger et al., *supra* note 103 (discussing the impact of structured interviews on variation and discrimination in hiring processes).

215. Glass, *supra* note 9, at 379–89.

216. Erin L. Kelly & Alexandra Kalev, *Managing Flexible Work Arrangements in U.S. Organizations: Formalized Discretion or 'A Right to Ask'*, 4 SOCIO-ECON. REV. 379, 403 (2006).

penalty and FRD, it is important to develop a solid foundation of scientific research to inform these efforts.

There are also a number of questions surrounding how and why race influences the motherhood penalty. The intersection of race and gender produces unique clusters of stereotypes. For example, stereotypes of black women may differ from those of white women, and both differ from stereotypes of black and white men.<sup>217</sup> As some of these stereotypes deal specifically with motherhood, we might expect the motherhood penalty to vary by race and ethnicity.<sup>218</sup> The evidence on this point thus far has been mixed. Several studies mentioned in this Article have found differences in the way black and white mothers are penalized,<sup>219</sup> but Correll, Benard, and Paik found that both white and African American women experience motherhood penalties of approximately equal magnitude.<sup>220</sup> Furthermore, the relatively small amount of work that does examine race and the motherhood penalty focuses largely on white and black people. As far as we are aware, there are no experiments examining the motherhood penalty among Latina women,<sup>221</sup> and no quantitative studies examining how the motherhood penalty affects Asian and Asian American women, Native American women, or members of other groups. It is important to identify commonalities and differences, if they exist, across the stereotyping of these groups. It is also important to identify whether and how these stereotypes translate into differential treatment or outcomes for mothers of different race or ethnic groups.

Another open question in research on FRD is how men are affected by having children. Most research on this question thus far finds that men unequivocally benefit in the workplace when they give evidence of being fathers. For example, they are viewed as more committed to work,<sup>222</sup> and are held to more lenient standards than men without children.<sup>223</sup> The workplace benefits men receive from fatherhood likely stem from cultural conceptions of masculinity that view both having children and working full time as parts of the “package deal” that defines manhood in America.<sup>224</sup> Perhaps because employed fathers are living up to a normative ideal for men, they are viewed positively and rewarded, whereas employed mothers, who are violating normative expectations

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217. Kennelly, *supra* note 189, at 171.

218. *See id.* at 172.

219. *E.g.*, Glauber, *supra* note 185; Cuddy & Frantz, *supra* note 188.

220. Correll, Benard, & Paik, *supra* note 35, at 1324.

221. However, both Glauber, *supra* note 185, and Budig and England, *supra* note 1, conducted nonexperimental quantitative survey analysis of Latinas.

222. Correll, Benard, & Paik, *supra* note 35, at 1317.

223. Fuegen et al., *supra* note 51, at 746.

224. NICHOLAS W. TOWNSEND, *THE PACKAGE DEAL: MARRIAGE, WORK, AND FATHERHOOD IN MEN'S LIVES 2* (2002).

that women belong at home with their children, are viewed negatively and penalized.<sup>225</sup> Men may also benefit from having children because they are assumed to require additional income in order to provide for their children.<sup>226</sup>

However, the cultural beliefs that reward men for being fathers are premised on a view of men as economic providers, rather than nurturers or emotional providers.<sup>227</sup> In addition, cultural expectations include beliefs that a man's responsibilities towards his children should not interfere with his labor market production.<sup>228</sup> To the extent that men violate these expectations and assume more primary roles in caretaking, such as taking time off of work to spend time with their children, they may begin to face penalties normally associated with motherhood. In support of this idea, one study finds that men are penalized more than mothers when they take time off from work to care for children.<sup>229</sup> Further research is necessary to determine the extent of this penalty and the mechanisms underlying it. For example, are men who nurture penalized because they are seen as less committed workers, because they are seen as counter-normative men, or because nurturing is generically devalued? Are men who nurture penalized more or less than women who nurture? Additionally, how do men feel about engaging in nurturing behavior? Do they engage in lower rates of such behavior because they are less personally interested in doing so, or because they feel constrained by gender norms in the workplace?

Research on the motherhood penalty could also benefit from looking beyond motherhood to family responsibilities more generally. With Americans living longer and the baby-boom generation easing into retirement, daily care of elderly parents will increasingly become a reality for many people. In addition, many people may find themselves caring for family members who are ill, injured, or otherwise needing additional care. These relationships bring with them nurturing responsibilities very similar to those traditionally associated with mothers, and these responsibilities may also bring similar penalties. If similar penalties are found for this type of caregiving, it would suggest the mechanism underlying the motherhood penalty has to do with cultural understandings of caregiving in general, rather than motherhood in particular.

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225. *See id.*; *see also* Orloff, *supra* note 154, at 53 (discussing the “gender hierarchy” and the assumptions that go along with it as well as the “family ethic” expected of women).

226. Orloff, *supra* note 154, at 53.

227. *See id.*

228. *See* TOWNSEND, *supra* note 224, at 16–17 (discussing how in the meaning of “fatherhood” in America “work and breadwinning are central”).

229. Wayne & Cordeiro, *supra* note 9, at 241 (finding that men were devalued—relative to other men not taking leave—when they took leave for the birth of a child).

The motherhood penalty literature could also benefit from increased attention to normative discrimination against mothers. Most prior research has focused on the way that motherhood, as a devalued status in the workplace, leads individuals to stereotype mothers as less competent or less committed to their jobs.<sup>230</sup> However, some newer evidence suggests that if mothers can overcome these doubts about their workplace commitment, they will experience another form of discrimination called “normative” discrimination. Normative discrimination occurs when employers discriminate against mothers because they believe mothers *should* be home with their children.<sup>231</sup> Mothers who demonstrate high levels of commitment to paid work violate prescriptive stereotypes about the appropriate place for women.<sup>232</sup> For example, showing commitment to an employer by working nights and weekends might cause co-workers to question a woman’s dedication to motherhood, and, by extension, they may view her as cold or otherwise unpleasant interpersonally. Research has found some evidence that mothers are penalized for succeeding in the workplace.<sup>233</sup> However, other research suggests that motherhood can blunt the penalties for women who succeed in the workplace, by causing others to perceive successful women as more communal.<sup>234</sup> Further work is needed to determine exactly how prescriptive stereotyping might affect working mothers.

Finally, it is important to address the extent to which motherhood bias is implicit, explicit, or both. Recent discussions of bias in both the legal and social psychological literatures have tended to focus on implicit bias.<sup>235</sup> However, the focus on implicit bias has occurred in the context of studying stereotypes regarding race and gender.<sup>236</sup> Race and gender bias

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230. See discussion *supra* Part I.

231. See generally Diane Burgess & Eugene Borgida, *Who Women Are, Who Women Should Be: Descriptive and Prescriptive Stereotyping in Gender Discrimination*, 5 *PSYCHOL. PUB. POL’Y & L.* 665 (1999) (discussing the difference between descriptive and prescriptive stereotypes and how they relate to different types of discrimination in the workplace); Eagly & Karau, *supra* note 67 (discussing normative expectations of ideal behavior of women in the context of role congruity theory); Madeline E. Heilman, *Description and Prescription: How Gender Stereotypes Prevent Women’s Ascent up the Organizational Ladder*, 57 *J. SOC. ISSUES* 657 (2001) (discussing bias based on gender-stereotypic prescriptions and its resulting penalization of women in the workplace); Madeline E. Heilman et al., *Penalties for Success: Reactions to Women Who Succeed at Male Gender-Typed Tasks*, 89 *J. APPLIED PSYCHOL.* 416 (2004) (detailing experimental studies analyzing prescriptive bias and its implications).

232. Cf. Burgess & Borgida, *supra* note 231, at 673 (explaining how working women violate these prescriptive norms by engaging in paid work—especially specific types of work).

233. Stephen Benard & Shelley Correll, Normative Discrimination and the Motherhood Penalty (Sept. 2006–Dec. 2007) (unpublished data, on file with authors).

234. Madeline E. Heilman & Tyler G. Okimoto, *Why Are Women Penalized for Success at Male Tasks?: The Implied Communitarity Deficit*, 92 *J. APPLIED PSYCHOL.* 81, 90–91 (2007).

235. See, e.g., Anthony G. Greenwald & Linda Hamilton Krieger, *Implicit Bias: Scientific Foundations*, 94 *Cal. L. Rev.* 945 (2006); Kunda & Spencer, *supra* note 8.

236. See, e.g., Kunda & Spencer, *supra* note 8.

in the United States are often accompanied by strong social desirability concerns, because even highly prejudiced people usually know that open displays of bias are considered unacceptable.<sup>237</sup> It is not clear that such strong social desirability concerns exist for discrimination against mothers.

While implicit bias likely accounts for a significant portion of the motherhood penalty, research should also address the extent to which explicit bias is a factor in discrimination against mothers. In the studies we have conducted, participants are sometimes willing to volunteer that they discriminated against the mothers.<sup>238</sup> In fact, in a section of the study in which participants are asked to list pros and cons of prospective applicants for a job, a number of participants noted “children” as a con.<sup>239</sup> In contrast, participants never listed an applicant’s race or gender as a con—doing so would be almost unthinkable in today’s workplace.<sup>240</sup> This suggests to us that individuals may be less reticent about openly discriminating against mothers than they would be about openly discriminating against members of other groups. Court cases provide further anecdotal evidence that motherhood bias is partially explicit. There are a number of FRD cases in which plaintiffs have won because of unequivocally discriminatory statements and actions from managers.<sup>241</sup> For example, one manager justified promoting a less-qualified man over a woman with an excellent record by saying “women are not good planners, especially women with kids.”<sup>242</sup> Further research is required to evaluate this anecdotal evidence, and determine the extent to which the motherhood penalty is implicit, explicit, or both.

### CONCLUSION

Existing research has documented cognitive bias towards mothers in a broad range of settings. Mothers (including expectant mothers) experience discrimination when they are being evaluated for hire and promotion, as well as on their job performance. While there are some differences in specific findings across studies, the general pattern is that

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237. See generally E. Ashby Plant & Patricia G. Devine, *Personality Processes and Individual Differences—Internal and External Motivation to Respond Without Prejudice*, 75 J. PERS'LTY & SOC. PSYCHOL. 811 (1998).

238. Shelley J. Correll, Stephen Benard & In Paik, *Getting a Job: Is There a Motherhood Penalty?* (Sept. 2003–May 2004) (unpublished data, on file with authors).

239. *Id.*

240. Plant & Devine, *supra* note 237.

241. See, e.g., Joan C. Williams & Stephanie Bornstein, *Caregivers in the Courtroom: The Growing Trend of Family Responsibilities Discrimination*, 41 U.S.F. L. REV. 171, 181–85 (2006) (discussing legal theories in recent FRD cases); Joan C. Williams & Consuela A. Pinto, *Family Responsibilities Discrimination: Don't Get Caught Off Guard*, 22 LAB. LAW. 293, 297–301 (2007) (detailing various explicitly discriminatory statements by employers in recent cases).

242. Williams & Pinto, *supra* note 241, at 297.

mothers are viewed as less competent and less committed than otherwise identical workers who are not mothers. Because these findings derive from controlled experiments, we can be confident that the findings represent a causal relationship between motherhood and discrimination. The experimental findings are complemented by survey research, which documents that the penalty is large, durable, and widespread in the general population.

This Article has sought to show that the existence of cognitive bias towards mothers has been firmly established by numerous studies using a broad range of methods, samples, and research designs. It is our hope that this marks the beginning of a new phase in research on the motherhood penalty. Now that the existence of the penalty is clear, new work can focus on explicating the penalty, perhaps in the ways suggested above. As the scientific body of knowledge on the motherhood penalty grows, so too does its utility to legal practitioners. Similarly, developments in law regarding motherhood and FRD will likely create new questions of interest to social science researchers. The interface between law and social science looks to be a productive source of exchange of ideas on the motherhood penalty and related issues.

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